



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

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

This Preliminary 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 Preliminary 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 is to advise that I will consider submissions received 35 days after delivery of this Preliminary Determination before a Final Determination is made.

In accordance with the *Environmental Management Act*, I will notify persons with an interest in the subject site once a Final Determination is made.

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

January 31, 2018
Date Issued

Heather Osachoff
For Director, *Environmental Management Act*

Schedule A

The site covered by this Preliminary Determination is located at 525 Third Street, Nanaimo, British Columbia which is more particularly known and described as:

Lot A, Section 1, Nanaimo District, Plan EPP70217
PID: 030-112-125

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

Latitude: 49° 09' 44.10"
Longitude: 123° 57' 29.20"

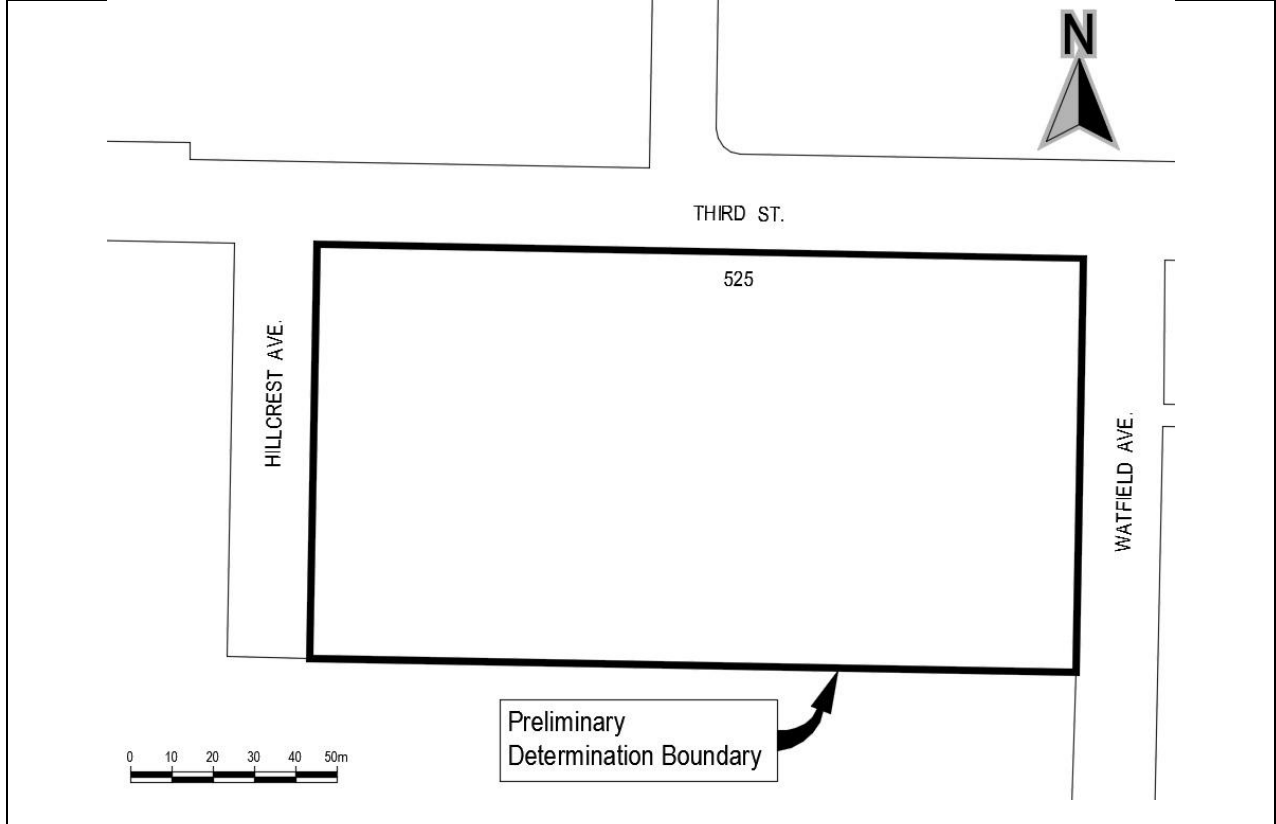
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Site Identification Number 1785
Version 8.0 R

Site Plan, Nanaimo, BC

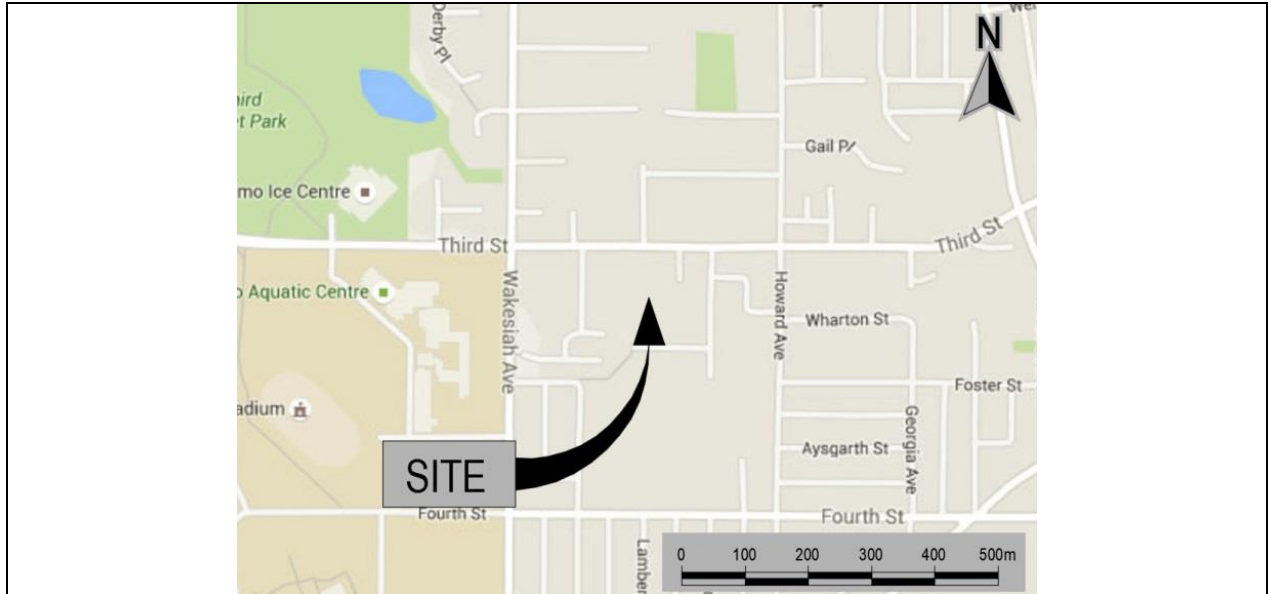


Location Map, Nanaimo, BC

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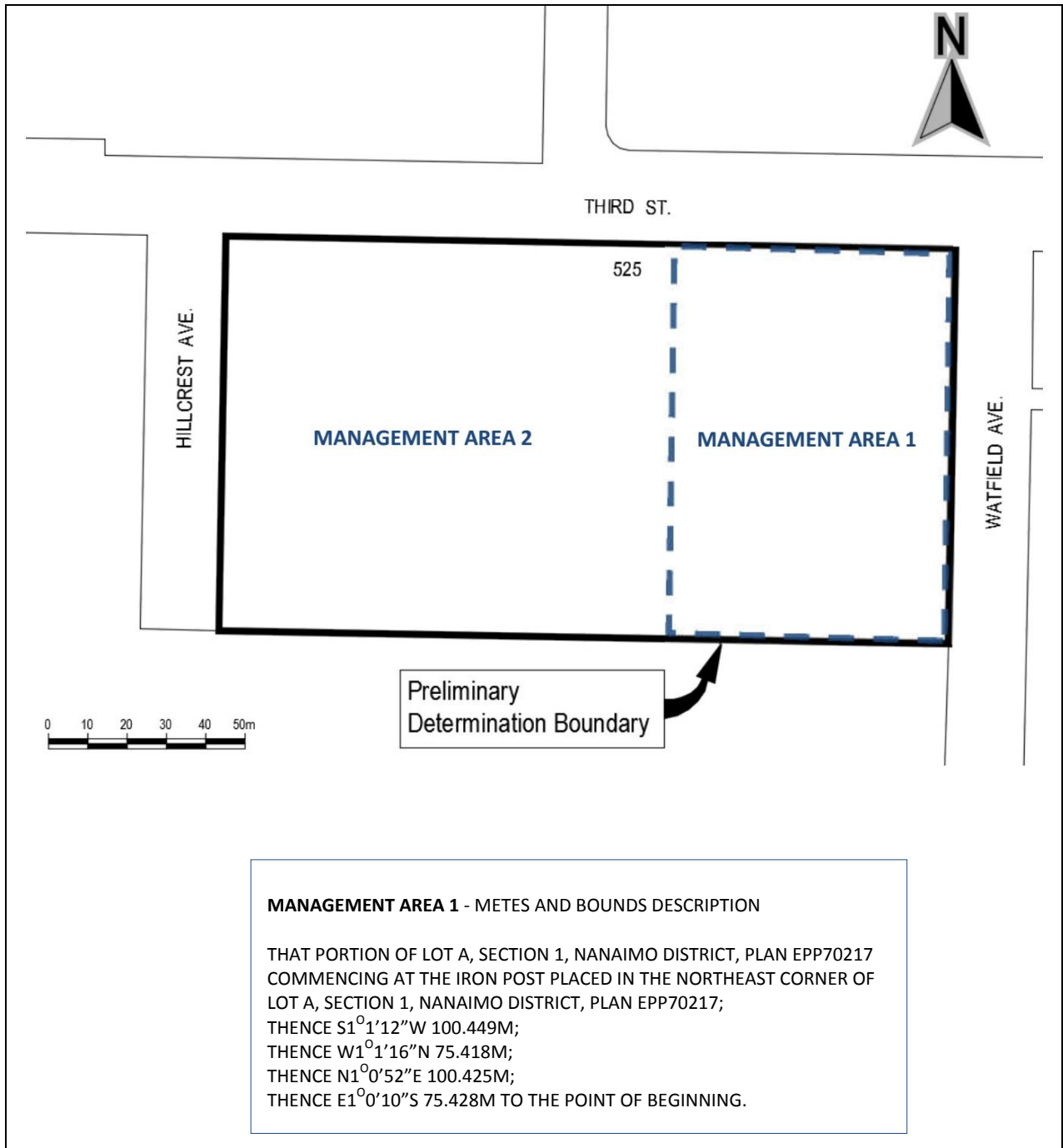


Supplemental Plan, Nanaimo, BC

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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 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 and trenches existing or expected at the site. These assumptions include the following:

- (a) Any building erected in Management Area 1 defined in Schedule A will have a maximum slab depth of 3 m below the current grade; and
- (b) Any building erected in the remaining area of the site (i.e. Management Area 2 in Schedule A) will be slab-on-grade.

Any inconsistencies that arise between the structures, locations and depths of proposed or constructed buildings or trenches at the site and the range of structures, locations and depths of buildings or trenches assumed in 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 Contaminated 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, chloride ion, chromium, cobalt, copper, lead, mercury (inorganic), molybdenum, nickel, selenium, silver, sodium ion, tin, uranium, vanadium, and zinc;
- VPHs, LEPHs, and HEPHs;
- Benzene, ethylbenzene, styrene, toluene, and xylene;
- Benz[a]anthracene, benzo[a]pyrene (B[a]P), benzo[b]fluoranthene, benzo[k]fluoranthene, dibenzo[a,h]anthracene, indeno [1,2,3-c,d] pyrene, naphthalene, phenanthrene, and pyrene;
- 1,3-Butadiene, 2-butanone (methyl ethyl ketone), carbon tetrachloride, chloroethane (ethyl chloride), chloroethene (vinyl chloride), 1,2-dibromoethane (ethylene dibromide) (EDB), 1,2-dichloroethane, 1,1-dichloroethene, 1,2-dichloroethylene (cis) (1,2-dichloroethene (cis)), 1,2-dichloroethylene (trans) (1,2-dichloroethene (trans)), dichloromethane, 4-methyl-2-pentanone (methyl isobutyl ketone), methyl tert-butyl ether (MTBE), tetrachloroethylene (PERC), 1,1,1-trichloroethane, and trichloroethylene (TCE); and
- Ethylene glycol and propylene glycol (1,2-propanediol).

Substances evaluated in vapour for residential land vapour use:

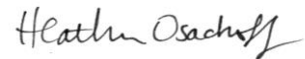
To meet numerical standards prescribed for defining whether a site is contaminated:

- Benzene, 1,3-butadiene, 2-butanone (methyl ethyl ketone), chloroethane (ethyl chloride), chloroethene (vinyl chloride), n-decane, 1,2-dibromoethane (ethylene dibromide) (EDB), 1,2-dichloroethane, 1,1-dichloroethylene (1,1-dichloroethene), 1,2-dichloroethylene, cis (1,2-dichloroethene, cis), 1,2-dichloroethylene, trans (1,2-dichloroethene, trans), dichloromethane (methylene chloride), ethylbenzene, n-hexane, isopropylbenzene (cumene), methylcyclohexane, 4-methyl-2-pentanone (methyl isobutyl ketone), MTBE (methyl tert-butyl ether), naphthalene, styrene, tetrachloroethylene (PCE) (PERC), tetrachloromethane (carbon tetrachloride), 1,1,1-trichloroethane, trichloroethylene (TCE), 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, Toluene, VPHv, and Xylenes, mixture.

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Substances evaluated in water for freshwater aquatic life water use:

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 (MTBE), VPHw, LEPHw, VHw6-10, and EPHw10-19;
- Dichloroethane, 1,2-, tetrachloroethylene (tetrachloroethene, 1,1,2,2-), and trichloroethylene (trichloroethene, 1,1,2-);
- Ethylene glycol and propylene glycol, 1,2-;
- Dichloromethane (methylene chloride) and tetrachloromethane (carbon tetrachloride);
- Benzene, ethylbenzene, styrene, and toluene; and
- Acenaphthene, acridine, anthracene, benzo[a]anthracene, benzo[a]pyrene, chrysene, fluoranthene, fluorene, naphthalene, phenanthrene, pyrene, and quinoline.

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Schedule D

Documents

Summary of Site Condition by Gary Lin, Next Environmental Inc., 23 October 2017;

Stage 2 Preliminary Site Investigation - Report, 525 Third Street, 306 Hillcrest Avenue, 305 & 311 & 321 Watfield Avenue [Site ID – 1785], Nanaimo, BC, prepared by Next Environmental Inc., 23 October 2017;

Re: Application for Determination of Local Background Concentration for Dissolved Arsenic Concentrations in Groundwater at 525 Third Street, 306 Hillcrest Avenue, 305, 311, and 321 Watfield Avenue, Nanaimo, BC, issued by Ministry of Environment and Climate Change Strategy, 16 October 2017;

Protocol 9 Application – Background Groundwater Quality Assessment , 525 Third Street & 311, 321 Watfield Avenue [Site ID – 1785], 305 Watfield Avenue, and 306 Hillcrest Avenue [Site ID – 3192], Nanaimo, BC, prepared by Next Environmental Inc., 8 September 2017;

Stage 1 Preliminary Site Investigation – Rev. 1 - Report, 306 Hillcrest Avenue [Site ID – 3192], 525 Third Street & 311 & 321 Watfield Avenue [Site ID – 1785] & 305 Watfield Avenue, Nanaimo, BC, prepared by Next Environmental Inc., 1 June 2017;

Stage 1 Preliminary Site Investigation, 306 Hillcrest Avenue, 305, 311, 321 Watfield and 525 Third Street, Nanaimo, BC, prepared by Tetra Tech EBA Inc., December 2015;

Underground Tank Removal and Remediation of Hydrocarbon Impacted Soils, 533 Third Street, Nanaimo, BC, prepared by EBA Engineering Consultants Ltd., March 1995;


Phase I & II Report Environmental Assessment @ 533 Third Street (Upper), Nanaimo, BC, prepared by EBA Environmental Ltd., November 1992; and

Phase I & II Report Environmental Assessment @ 533 Third Street (Lower), Nanaimo, BC, prepared by EBA Environmental Ltd., November 1992.

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