



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.

August 19, 2019

Date Issued

J.A. Brooke

For Director, *Environmental Management Act*

Schedule A

The site covered by this Preliminary Determination is located at 8555 Capstan Way, Richmond, British Columbia, which is more particularly known and described as:

Lot 1, Section 28, Block 5, North Range 6 West, New Westminster District Plan EPP80548
PID: 030-520-941
8555 Capstan Way, Richmond, BC

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

Latitude: 49° 11' 18.04"
Longitude: 123° 07' 49.67"



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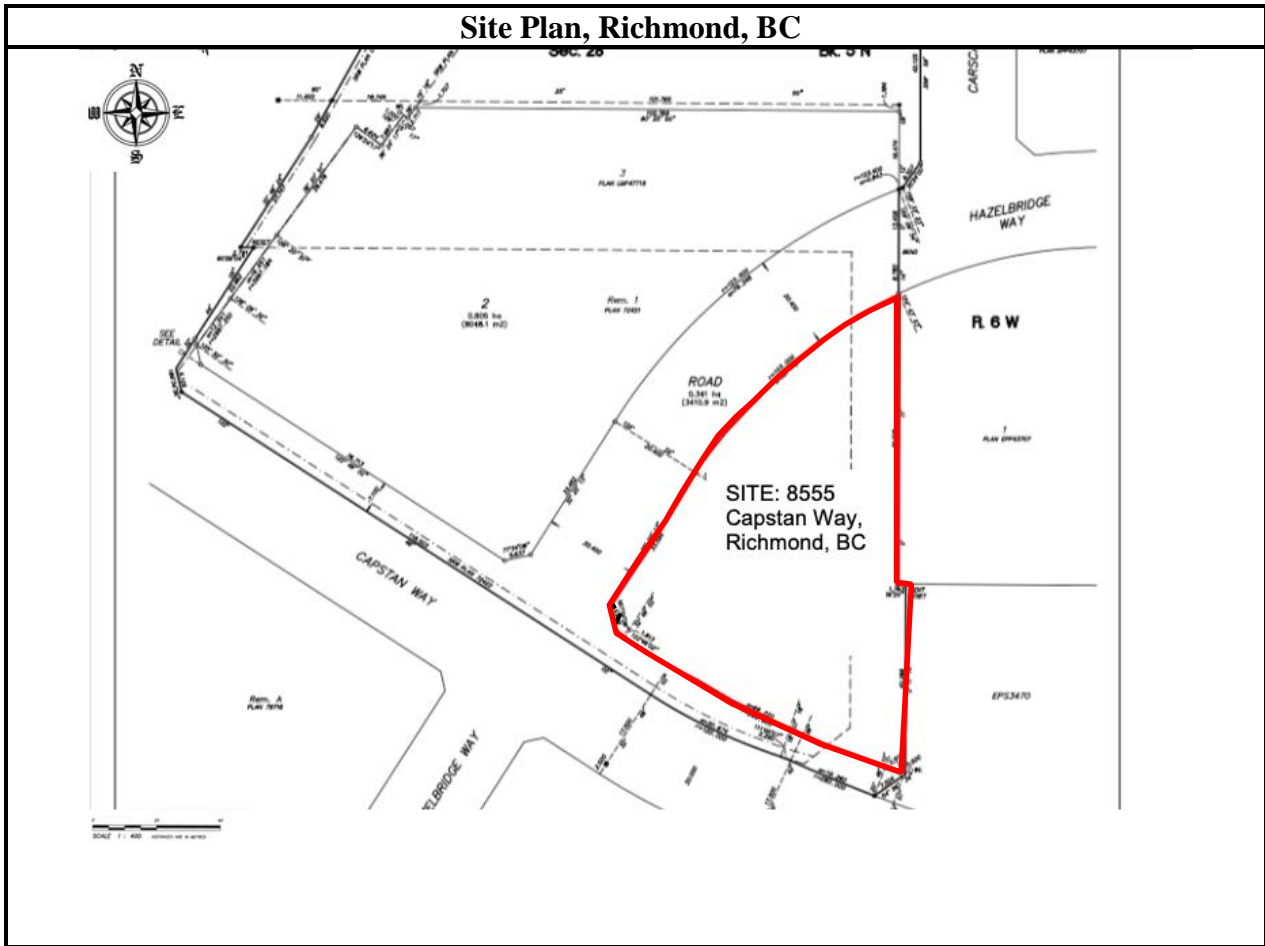
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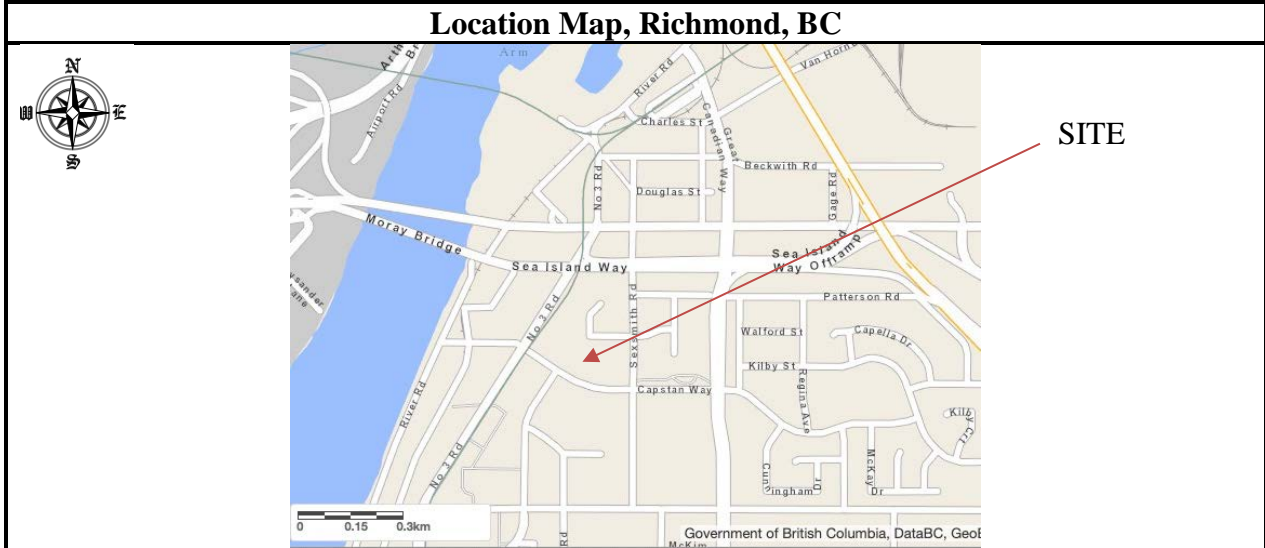
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Site Plan, Richmond, BC



Location Map, Richmond, BC



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Schedule B

Requirements and Conditions

1. Any changes in land use must be promptly identified by the responsible person in a written submission to the Director. An application for an amendment or new Determination of Contaminated Site may be necessary. The use 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 existing or expected at the site. These assumptions include the following:

- (a) *Any building or structure constructed onsite will have a concrete floor slab and the base of the underside of the floor slab will not be in contact with groundwater, with the exception of parkades built to the equivalent or better: 2012 or later BC Building Codes.*

Any inconsistencies that arise between the structures, locations and depths of proposed or constructed buildings at the site and the range of structures, locations and depths of buildings assumed in the selection of vapour attenuation factors in the documents listed in Schedule D must be promptly identified by the responsible person 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 (high density) soil use:

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

PCOC Analyzed	CAS Number	PCOC Analyzed	CAS Number
acenaphthene	83-32-9	ethylbenzene	100-41-4
anthracene	120-12-7	ethylene glycol	107-21-1
antimony	7440-36-0	fluoranthene	206-44-0
arsenic	7440-38-2	fluorene	86-73-7
barium	7440-39-3	HEPHs	NA
benzene	71-43-2	indeno(1,2,3-cd)pyrene	193-39-5
benzo(a)anthracene	56-55-3	lead	7439-92-1
benzo(a)pyrene	50-32-8	LEPHs	NA
benzo(b+j)fluoranthenes	205-99-2 & 205-82-3	methyl tert-butyl ether [MTBE]	1634-04-4
benzo(k)fluoranthene	207-08-9	methylnaphthalene, 1-	90-12-0
carbon tetrachloride	56-23-5	methylnaphthalene, 2-	91-57-6
chlorobenzene	108-90-7	naphthalene	91-20-3
chloroform	67-66-3	nickel	7440-02-0
chromium	7440-47-3	phenanthrene	85-01-8
chrysene	218-01-9	pyrene	129-00-0
cobalt	7440-48-4	quinoline	91-22-5
copper	7440-50-8	styrene	100-42-5
dibenz(a,h)anthracene	53-70-3	tetrachloroethane, 1,1,2,2-	79-34-5
dichlorobenzene, 1,2-	95-50-1	tetrachloroethylene	127-18-4
dichlorobenzene, 1,3-	541-73-1	tin	7440-31-5
dichlorobenzene, 1,4-	106-46-7	toluene	108-88-3
dichlorodifluoromethane	75-71-8	trichloroethane, 1,1,1-	71-55-6
dichloroethane, 1,1-	75-34-3	trichloroethane, 1,1,2-	79-00-5
dichloroethane, 1,2-	107-06-2	trichloroethylene	79-01-06
dichloroethylene, 1,2-cis-	156-59-2	trichlorofluoromethane	75-69-4
dichloroethylene, 1,2-	156-60-5	triethylene glycol	112-27-6



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PCOC Analyzed	CAS Number	PCOC Analyzed	CAS Number
trans-			
dichloroethylene, 1,1-	75-35-4	vinyl chloride	75-01-4
dichloromethane	75-09-02	VPHs	NA
dichloropropane, 1,2-	78-87-5	xylene, total	1330-20-7
dichloropropene, 1,3- (cis+trans)	542-75-6	zinc	7440-66-6

Substances evaluated in vapour for parkade and residential vapour use:

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

PCOC Analyzed	CAS Number	PCOC Analyzed	CAS Number
acetone	67-64-1	hexane, n-	110-54-3
benzene	71-43-2	isopropylbenzene	98-82-8
butadiene, 1,3-	106-99-0	methyl tert-butyl ether [MTBE]	1634-04-4
carbon tetrachloride	56-23-5	methylcyclohexane	108-87-2
chloroform	67-66-3	naphthalene	91-20-3
decane, n-	124-18-5	tetrachloroethylene	127-18-4
dibromoethane, 1,2-	106-93-4	toluene	108-88-3
dichloroethane, 1,1-	75-34-3	trichloroethylene	79-01-06
dichloroethane, 1,2-	107-06-2	trimethylbenzene, 1,2,4 -	95-63-6
dichloroethylene, 1,2-cis	156-59-2	trimethylbenzene, 1,3,5-	108-67-8
dichloroethylene, 1,2- trans	156-60-5	vinyl chloride	75-01-4
dichloroethylene 1,1-	75-35-4	VPHv	NA
dichloromethane	75-09-02	xylene, total	1330-20-7
ethylbenzene	100-41-4		



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Substances evaluated in water for drinking water use:

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

PCOC Analyzed	CAS Number	PCOC Analyzed	CAS Number
acenaphthene	83-32-9	dichloropropane, 1,2-	78-87-5
acetone	67-64-1	dichloropropene, 1,3- (cis + trans)	542-75-6
anthracene	120-12-7	ethylbenzene	100-41-4
antimony	7440-36-0	ethylene glycol	107-21-1
arsenic	7440-38-2	EPHw10-19	NA
barium	7440-39-3	fluoranthene	206-44-0
benzene	71-43-2	fluorene	86-73-7
benzo(a)anthracene	56-55-3	lead	7439-92-1
benzo(a)pyrene	50-32-8	methyl ethyl ketone [MEK]	78-93-3
benzo(b+j)fluoranthenes	205-99-2 & 205-82-3	methyl tert-butyl ether [MTBE]	1634-04-4
bromodichloromethane	75-27-4	methylnaphthalene, 1-	90-12-0
bromoform	75-25-2	methylnaphthalene, 2-	91-57-6
bromomethane	74-83-9	naphthalene	91-20-3
carbon tetrachloride	56-23-5	nickel	7440-02-0
chlorobenzene	108-90-7	propylene glycol, 1,2-	57-55-6
chloroform	67-66-3	pyrene	129-00-0
chromium	7440-47-3	quinoline	91-22-5
chrysene	218-01-9	styrene	100-42-5
cobalt	7440-48-4	tetrachloroethane, 1,1,1,2-	630-20-6
copper	7440-50-8	tetrachloroethane, 1,1,2,2-	79-34-5
dibenz(a,h)anthracene	53-70-3	tetrachloroethylene	127-18-4
dibromochloromethane [DBCM]	124-48-1	tin	7440-31-5
dibromoethane, 1,2-	106-93-4	toluene	108-88-3
dichlorobenzene, 1,2-	95-50-1	trichloroethane, 1,1,1-	71-55-6
dichlorobenzene, 1,4-	106-46-7	trichloroethane, 1,1,2-	79-00-5
dichlorodifluoromethane	75-71-8	trichloroethylene	79-01-6
dichloroethane, 1,1-	75-34-3	trichlorofluoromethane	75-69-4
dichloroethane, 1,2-	107-06-2	triethylene glycol	112-27-6



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PCOC Analyzed	CAS Number	PCOC Analyzed	CAS Number
dichloroethylene, 1,2-cis-	156-59-2	VHw6-10	NA
dichloroethylene, 1,2-trans-	156-60-5	vinyl chloride	75-01-4
dichloroethylene, 1,1-	75-35-4	xylenes, total	1330-20-7
dichloromethane	75-09-02	zinc	7440-66-6

Substances evaluated in water for aquatic life marine/estuarine water use:

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

PCOC Analyzed	CAS Number	PCOC Analyzed	CAS Number
acenaphthene	83-32-9	ethylbenzene	100-41-4
acridine	260-94-6	ethylene glycol	107-21-1
anthracene	120-12-7	EPHw10-19	NA
antimony	7440-36-0	fluoranthene	206-44-0
arsenic	7440-38-2	fluorene	86-73-7
barium	7440-39-3	lead	7439-92-1
benzene	71-43-2	LEPHw	NA
benzo(a)anthracene	56-55-3	methyl tert-butyl ether [MTBE]	1634-04-4
benzo(a)pyrene	50-32-8	naphthalene	91-20-3
carbon tetrachloride	56-23-5	phenanthrene	85-01-08
chlorobenzene	108-90-7	propylene glycol, 1,2-	57-55-6
chloroform	67-66-3	pyrene	129-00-0
chromium	7440-47-3	quinoline	91-22-5
chrysene	218-01-9	styrene	100-42-5
cobalt	7440-48-4	tetrachloroethylene	127-18-4
copper	7440-50-8	toluene	108-88-3
dichlorobenzene, 1,2-	95-50-1	trichloroethylene	79-01-6
dichlorobenzene, 1,3-	541-73-1	VHw6-10	NA
dichlorobenzene, 1,4-	106-46-7	VPHw	NA
dichloroethane, 1,2-	107-06-2	xylenes, total	1330-20-7
dichloromethane	75-09-02	zinc	7440-66-6



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Schedule D

Documents

- *Detailed Site Investigation, 8555 Capstan Way, 8671 Hazelbridge Way & Dedicated Lands, Richmond, BC*, Sara Bathgate & Nick Dayal, Geostratus Consulting Inc., June 2019;
- *Summary of Site Condition, 8555 Capstan Way, Richmond, BC*, James Smith, Envision Environmental Consulting Ltd., June 2019;
- *Confirmation of Remediation Report, 8671 Hazelbridge Way, Richmond, BC*, Sara Bathgate & Nick Dayal, Geostratus Consulting Inc. March 2019;
- *Stage 1 Preliminary Site Investigation Update, 8555 Capstan Way, 8671 Hazelbridge Way & Dedications, Richmond, BC*, Sara Bathgate & Nick Dayal, Geostratus Consulting Inc., March 2019;
- *Scenario 5 Release - Release Request: Zoning, Subdivision, Demolition and Development Applications, 8511 Capstan Way, Richmond, BC*, Ministry of Environment & Climate Change Strategy, October 31, 2017;
- *Release Request: Rezoning, Subdivision, Demolition and Development Permit Application, 8511 Capstan Way, Richmond, BC*, NEXT Environmental Inc., October 16, 2017;
- *Site Remediation Plan, 8511 Capstan Way, Richmond, BC*, Michael Muttersbach, NEXT Environmental Inc., October 12, 2017;
- *Stage 1 Preliminary Site Investigation, 8511 Capstan Way, Richmond, BC*, Ardavan Mansourpour & Michael Muttersbach, NEXT Environmental Inc., April 17, 2017;
- *Decommissioning of Fuel Dispensing Equipment, 8551 Capstan Way, Richmond, BC*, Michelle Stockwell & Duncan MacDonald, Pottinger Gaherty Environmental Consultants Ltd., January 14, 2008;
- *Environmental Stage 2 Preliminary Site Investigation, 8511, 8531 and 8551 Capstan Way, Richmond, BC*, Catherine Galbrand & Phil Lowery, NEXT Environmental Inc., July 2005; and
- *Environmental Stage 1 Preliminary Site Investigation, 8511, 8531 and 8551 Capstan Way, Richmond, BC*, Catherine Galbrand & Phil Lowery, NEXT Environmental Inc., June 3, 2005.



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