



**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.

2018-02-14  
Date Issued

  
Alan W. McCammon  
For Director, *Environmental Management Act*

## Schedule A

The site covered by this Preliminary Determination is located at Ten Mile Bay, Harrison, British Columbia and is more particularly known and described, for Crown Land tenure purposes, as:

That parcel or tract of land in the vicinity of District Lot 6797, Group 1, New Westminster District

PIN: Not Available

Crown Lands File Number: 2410058

Internal Interest Identifier: 948570

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

Latitude: 49° 26' 01.8"

Longitude: 121° 50' 38.5"

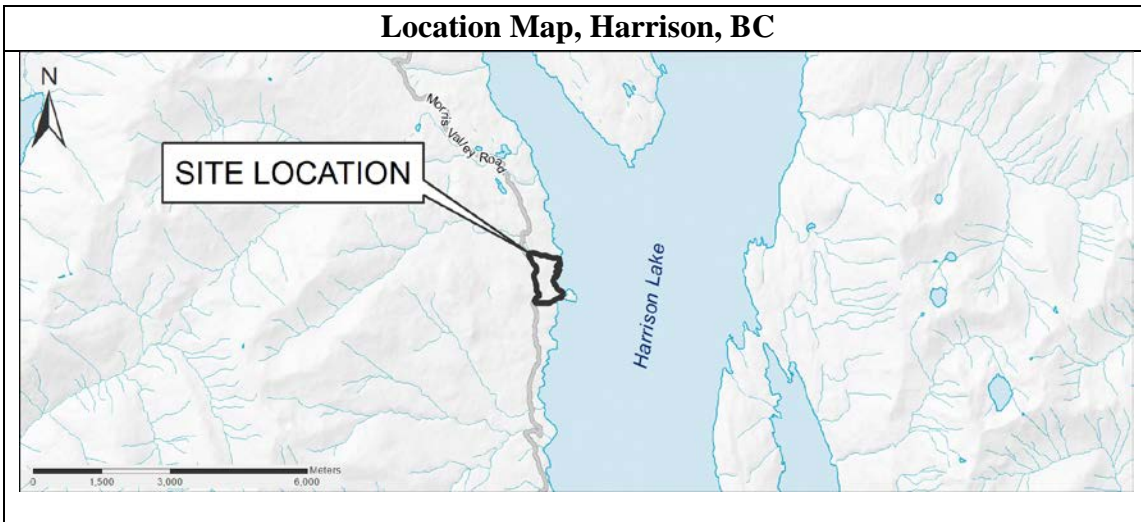
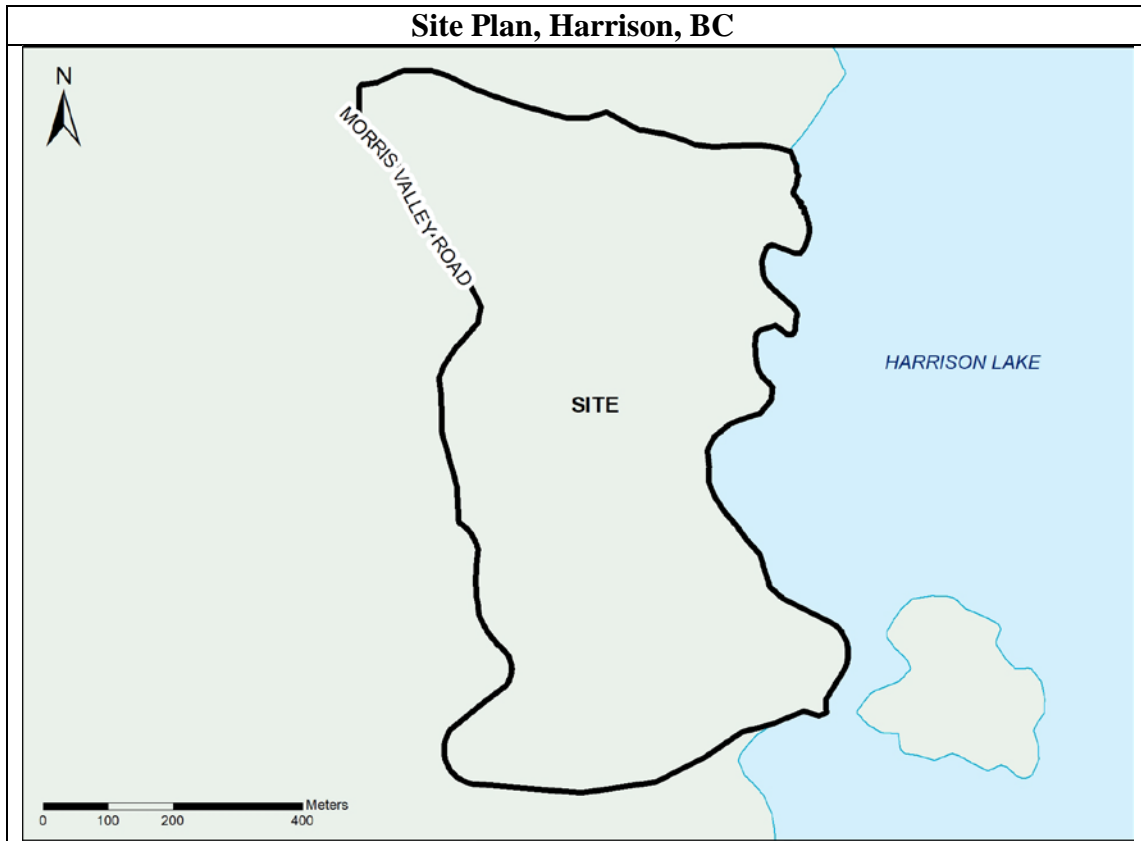
2018-02-14

Date Issued



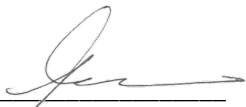
Alan W. McCammon

For Director, *Environmental Management Act*



2018-02-14  
 \_\_\_\_\_  
 Date Issued

Site Identification Number 20959  
 Version 8.0 R

  
 \_\_\_\_\_  
 Alan W. McCammon  
 For Director, *Environmental Management Act*  
 3 of 7

## 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 expected at the site. These assumptions include the following:

- (a) All buildings must be of slab-on-grade construction; and
- (b) Groundwater must not come in contact with building foundations.

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 persons in a written submission to the Director. An application for an amendment or new Determination of Contaminated Site may be necessary.

2018-02-14  
Date Issued

Site Identification Number 20959  
Version 8.0 R

  
Alan W. McCammon  
For Director, *Environmental Management Act*  
4 of 7

## Schedule C

### Substances and Uses

#### *Substances evaluated in soil for park land and 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, lithium, manganese, mercury, molybdenum, nickel, selenium, silver, strontium, tin, uranium, vanadium, and zinc;
- MTBE, VPHs, LEPHs, and HEPHs;
- Bromodichloromethane, bromoform (tribromomethane), carbon tetrachloride, chlorobenzene, chloroethane, chloroform, chloromethane, dibromochloromethane, 1,2-dibromoethane, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, 1,1-dichloroethane, 1,2-dichloroethane, 1,1-dichloroethylene, cis-1,2-dichloroethylene, trans-1,2-dichloroethylene, dichloromethane, 1,2-dichloropropane, cis-1,3-dichloropropylene, trans-1,3-dichloropropylene, 1,2,3-trichlorobenzene, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane, tetrachloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, trichloroethylene, trichlorofluoromethane, and vinyl chloride;
- Benz[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, benzo[k]fluoranthene, dibenzo[a,h]anthracene, indeno[1,2,3-c,d]pyrene, naphthalene, phenanthrene, pyrene;
- Benzene, ethylbenzene, toluene, styrene, and xylene.

#### *Substances evaluated in vapour for park land and residential land vapour use:*

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

- Acetone, benzene, bromobenzene, bromodichloromethane, bromomethane, 1,3-butadiene, carbon disulphide, carbon tetrachloride, chlorobenzene, n-decane, 1,2-dibromoethane, 1,2-dichlorobenzene, dichlorodifluoromethane, 1,1-dichloroethane, 1,2-dichloroethane, 1,1-dichloroethene, 1,2-dichloroethene (cis), 1,2-dichloroethene (trans), 1,2-dichloropropane, ethyl acetate, ethylbenzene, n-hexane, isopropylbenzene, methylcyclohexane, methylene chloride, methyl ethyl ketone, methyl isobutyl ketone, methyl tert-butyl ether, naphthalene, 1,1,2,2-tetrachloroethane, tetrachloroethylene, 1,2,4-trichlorobenzene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, trichloroethylene, trichlorotrifluoroethane, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, toluene, vinyl chloride, VPHv, and xylenes.

2018-02-14

Date Issued

Site Identification Number 20959  
Version 8.0 R



Alan W. McCammon  
For Director, *Environmental Management Act*

5 of 7

***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, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, titanium, uranium, and zinc;
- Methyl tertiary butyl ether (MTBE), VPH<sub>w</sub>, LEPH<sub>w</sub>, VHW<sub>6-10</sub>, and EPH<sub>w10-19</sub>;
- Carbon tetrachloride, chlorobenzene, chloroform, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, 1,2-dichloroethane, dichloromethane, hexachlorobutadiene, 1,2,3-trichlorobenzene, 1,2,4-trichlorobenzene, tetrachloroethylene, and trichloroethylene;
- Benzene, ethylbenzene, styrene, toluene; and
- Acenaphthene, acridine, anthracene, benzo[a]anthracene, benzo[a]pyrene, chrysene, fluoranthene, fluorene, naphthalene, phenanthrene, pyrene, quinolone.

***Substances evaluated in water for drinking water use:***

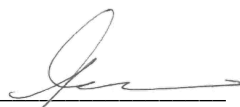
To meet numerical standards prescribed for defining whether a site is contaminated:

- Aluminum, antimony, arsenic, barium, boron, cadmium, chromium, copper, lead, lithium, magnesium, mercury, molybdenum, selenium, sodium, strontium, tin, uranium, and zinc;
- Methyl tertiary butyl ether (MTBE), VHW<sub>6-10</sub>, and EPH<sub>w10-19</sub>;
- Bromodichloromethane, bromoform, 1,3-butadiene, carbon tetrachloride, chlorobenzene, chloroethane, chloroform, chloromethane, dibromochloromethane, 1,2-dibromoethane, 1,2-dichlorobenzene, 1,4-dichlorobenzene, dichlorodifluoromethane (Freon 12), 1,1-dichloroethane, 1,2-dichloroethane, 1,1-dichloroethylene, cis-1,2-dichloroethylene, trans-1,2-dichloroethylene, dichloromethane, 1,2-dichloropropane, cis-1,3-dichloropropylene, trans-1,3-dichloropropylene, hexachlorobutadiene, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane, tetrachloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, trichloroethylene, trichlorofluoromethane (Freon 11), and vinyl chloride;
- Benzene, ethylbenzene, toluene, and xylenes; and
- Benzo[a]pyrene.

2018-02-14

Date Issued

Site Identification Number 20959  
Version 8.0 R



Alan W. McCammon

For Director, *Environmental Management Act*

6 of 7

## Schedule D

### Documents

*Addendum Report – Preliminary Site Investigation, Ten Mile Bay, Harrison, BC, SLR Consulting (Canada) Ltd., December 18, 2017;*

*Summary of Site Condition, SLR Consulting (Canada) Ltd., October 23, 2017;*

*Stage 1 and 2 Preliminary Site Investigation, Ten Mile Bay, Harrison, BC, SLR Consulting (Canada) Ltd., October 2017;*

*Determination of Background Soil and Groundwater Quality for Arsenic, Ten Mile Bay, Harrison, British Columbia, Ministry of Environment and Climate Change Strategy, October 19, 2017;*

*Application for Determination of Local Background Concentration for Dissolved Arsenic Concentrations in Groundwater, Ten Mile Bay, Harrison, British Columbia, Ministry of Environment and Climate Change Strategy, October 10, 2017;*

*Email: Site 20959 (Ten Mile Bay, Harrison, BC): P9 background groundwater, SLR Consulting (Canada) Ltd., October 4, 2017;*

*Email: Site 20959 (Ten Mile Bay, Harrison, BC): P9 background groundwater, SLR Consulting (Canada) Ltd., October 2, 2017;*

*Determination of Background Soil and Groundwater Quality for Arsenic, Ten Mile Bay, Harrison, BC; SLR Consulting (Canada) Ltd., July 31, 2017;*

*2015 Soil and Groundwater Investigation, Ten Mile Bay, Harrison, BC, SLR Consulting (Canada) Ltd., February 2016; and*

*Draft Phase I Environmental Site Assessment, Upland Area - Ten Mile Bay, Harrison, BC, SLR Consulting (Canada) Ltd., April 2012.*

2018-02-14

Date Issued

Site Identification Number 20959  
Version 8.0 R



Alan W. McCammon

For Director, *Environmental Management Act*

7 of 7