

Telephone 604.238.2218 Fax 604.270.7389

### SOURCE SITE IDENTIFICATION

Site Identification Number (if available)

#### If Legally Titled, Registered Property

Site Street Address 825 Admirals Road

City Victoria

Postal Code V9A 2P1

PID numbers and associated legal descriptions. *Attach an additional sheet if necessary.*

#### PID

#### Legal Description

000-176-338

Lot 1, Sections 2 and 10, Esquimalt District, and part of the bed of Esquimalt Harbour, Plan 32699, Except Part in Plan VIP88147

#### If Untitled Crown Land

1. PIN numbers and associated Land Description (if applicable). *Attach an additional sheet if necessary*

#### PIN

#### Land Description

#### OR

1. Coordinates (using the North American Datum 1983 convention) for the centre of the site:

Latitude:

Degrees 48 Minutes 26 Seconds 8

Longitude:

Degrees 123 Minutes 25 Seconds 46

Please attach a map of appropriate scale showing the boundaries of the site.

(and, if available)

Crown land file numbers. *Attach an additional sheet if necessary.*

## SECTION B: Contaminated Soil Information

1. Soil characterization. *Attach an additional sheet if necessary.*

- Soil volumes to be relocated in cubic metres (m3).
- Soil test results summary. *Include contaminant concentrations and supporting information.*

Sediments contaminated by historical dry docks, ship building or boat repair activities.

Contaminant                      mg/kg

### Inorganic Substances

arsenic	833
chloride Ion (Cl-)	13,000
copper	699
lead	509
mercury (inorganic)	7.89
sodium Ion (Na+)	6,730
zinc	10,700

### Miscellaneous Inorganic and Organic Substances

HEPHs	6,240
LEPHs	2,040

### Organic Substances Chlorinated Hydrocarbons

1,4-dichlorobenzene	20.2
polychlorinated biphenyls (PCBs)	9.52

### Polycyclic Aromatic Hydrocarbons (PAHs)

benz[a]anthracene	210
benzo[a]pyrene	183
dibenz[a,h]anthracene	12.1
naphthalene	74.1
phenanthrene	51
pyrene	48.1

2. Soil characterization method. *Attach an additional sheet if necessary.*

Sediment grab samples and core samples from more than 150 locations throughout the project area.

3. Current type of soil storage (e.g. stockpiled, in situ) in situ

4. Soil relocation start date (YY-MM-DD) 16-02-25

5. Estimated completion date (YY-MM-DD) 16-06-30

6. Relocation method (e.g. truck, barge, train) Barge to temporary Receiving Site: Fraser Pacific Enterprises (Mission), before trucking to EnviroGreen Technologies Ltd. (Princeton) for final disposal.

7. Number of loads 16 barge loads

## PART II

*To be completed by or for the owner or operator of the receiving site to which contaminated soil is to be relocated.*

### SECTION A: Receiving Site Information

1. Name of receiving site owner / operator:

Last First Middle Initial(s) (and / or, if applicable)

Company 359719 B.C. Ltd. / Fraser Pacific Enterprises Inc.

2. Name of receiving site contact person:

Last Armstrong First Jim Middle Initial(s) (and / or, if applicable)

Company AES Inc

Mailing Address

City Langley Province / State BC

Country Canada Postal Code / ZIP

Telephone 778-549-2807 Fax

### RECEIVING SITE IDENTIFICATION

Site Identification Number (if available)

4775

#### If Legally Titled, Registered Property

Site Street Address 31870 Duncan Avenue

City Mission Postal Code V2V 2V9

PID numbers and associated legal descriptions. *Attach an additional sheet if necessary.*

#### PID

#### Legal Description

011-654-198

Lot 1 Except:

Firstly: Part on Statutory Right of Way Plan 52311;

Secondly: Part Dedicated Road on Plan BCP14718; Sections 18 and 19, Township 17 New Westminster, District Plan 8588

#### If Untitled Crown Land

1. PIN numbers and associated Land Description (if applicable). *Attach an additional sheet if necessary*

#### PIN

#### Land Description

OR

2. Coordinates (using the North American Datum 1983 convention) for the centre of the site:

Latitude:

Degrees 49 Minutes 7 Seconds 49.7

Longitude:

Degrees 122 Minutes 20 Seconds 35.8

Please attach a map of appropriate scale showing the boundaries of the site.

(and, if available)

Crown land file numbers. *Attach an additional sheet if necessary.*

3. Receiving site primary land use. Write in one of commercial, industrial, residential, agricultural or urban park. If none apply, specify the current and anticipated land use.


Industrial

4. Relocated soil use at the receiving site (e.g. fill, cover) Temporary holding facility with full containment

### PART III

Contaminated Soil Relocation Agreement: *To be completed and signed by all parties.*

1. The above information accurately reflects the volume and quality of the soil to be relocated. I know of no regulation, bylaw or other legal restriction which might prohibit the relocation of the soil, as described in Part I, Section B, to the indicated receiving site. Further, I will ensure that all permits, manifests and other regulatory and safety requirements that may apply are met.

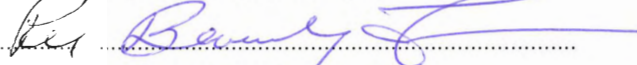
Signature of Source site owner ..... 

Print name ..... Andrew Mylly

Date (YY-MM-DD) ..... 2016-01-14

2. I am prepared to receive the soil as described in Part I, Section B on the indicated site described in Part II, Section A. I know of no regulation, bylaw or other legal restriction which might prohibit the relocation of this soil to this site. The answers provided in Part II are accurate to the best of my knowledge.

Signature of Receiving site owner/operator

..... 

Print name ..... BEVERLY TOEWS

Date (YY-MM-DD) ..... 2015-12-17

3. Signature of ~~BC Environment Manager~~ Director .....  \* subject to conditions below

Print name ..... Alan W. McCammon

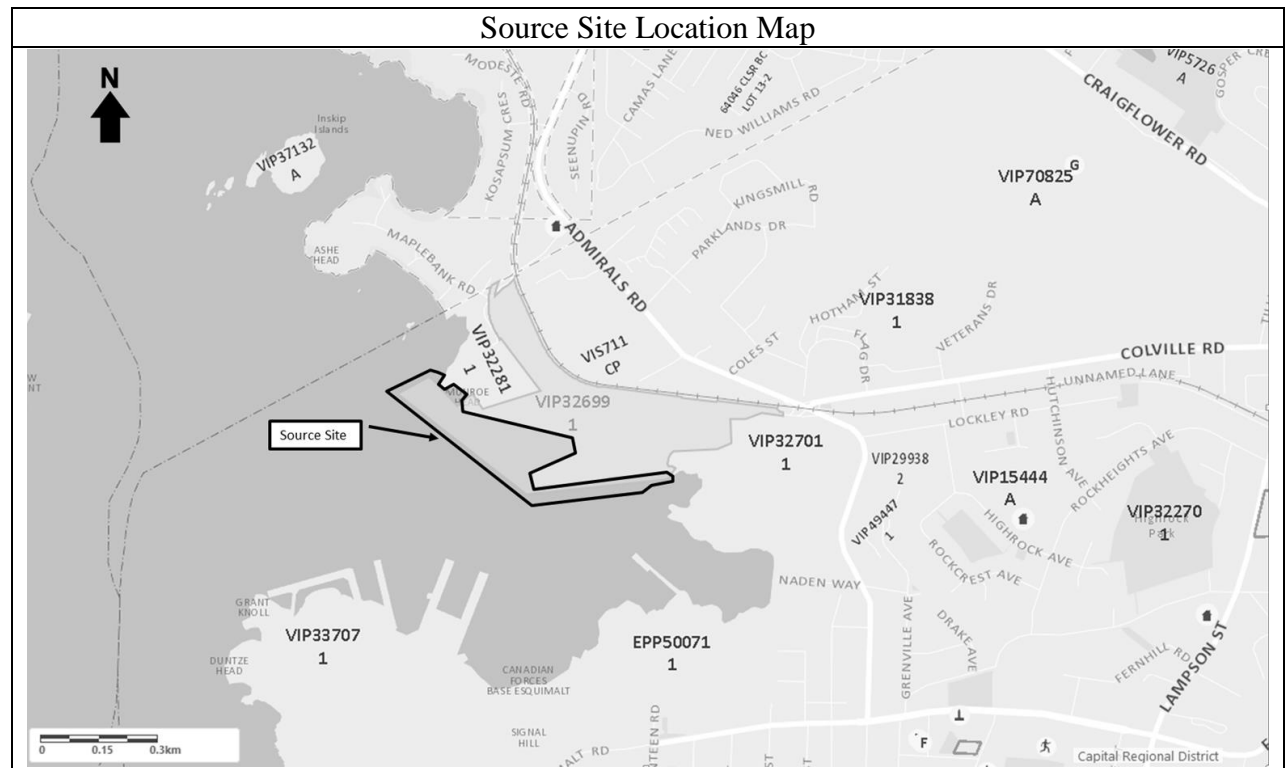
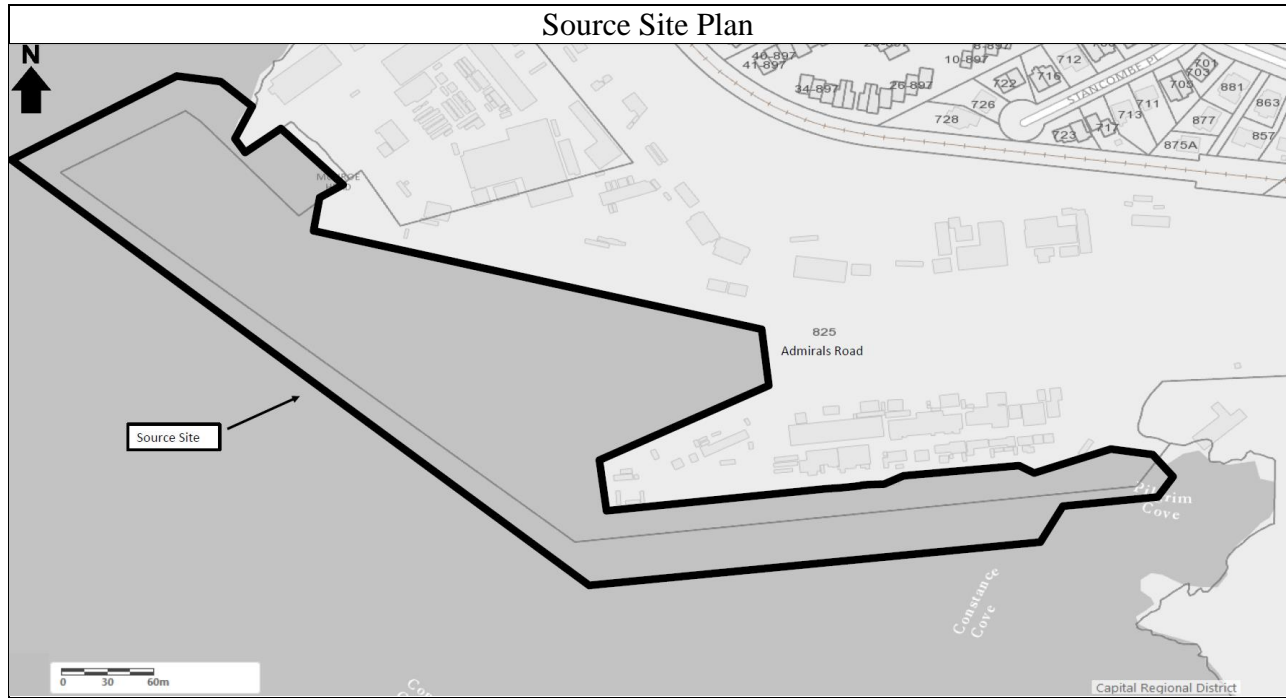
Date (YY-MM-DD) ..... 16-03-18

*Note: this regulation replaces B.C. Reg. 269/95.*

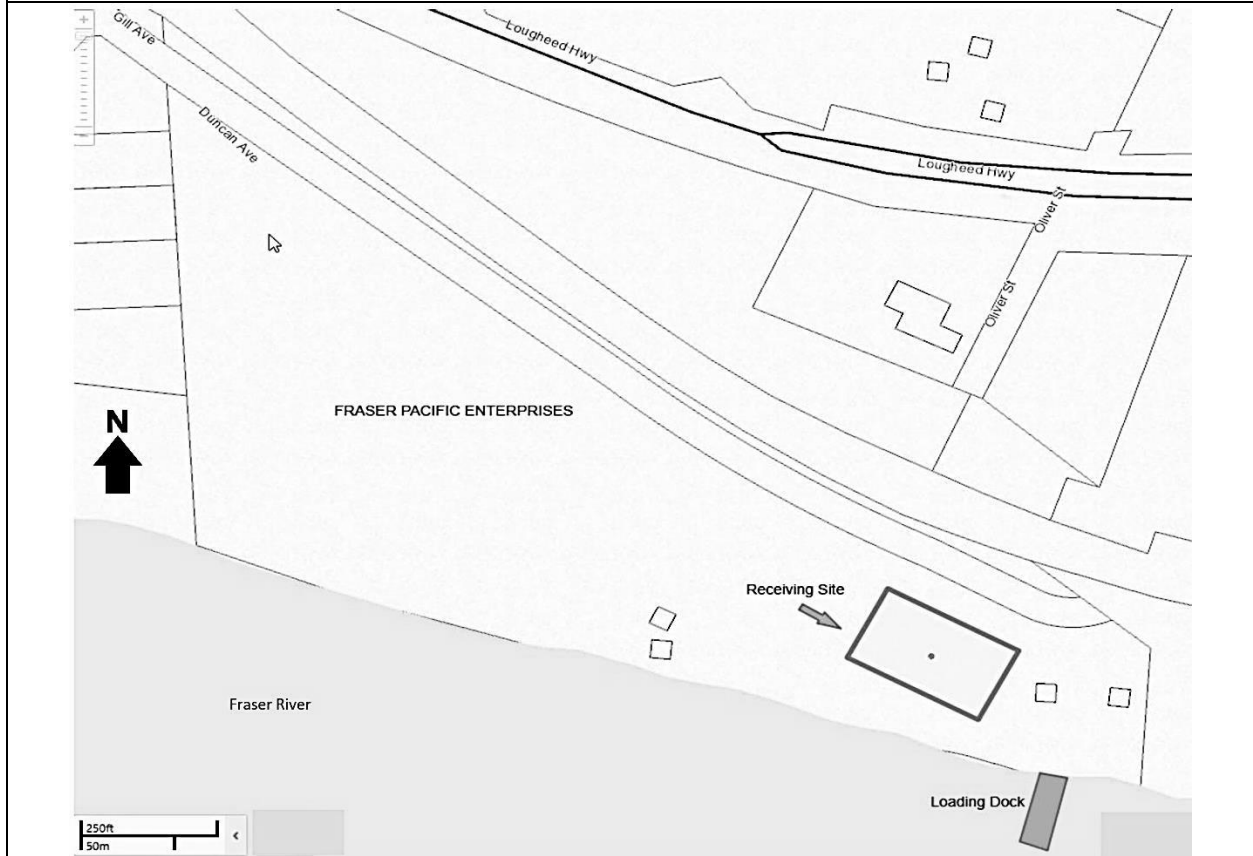
[Provisions of the Waste Management Act, RSBC 1996, c. 482, relevant to the enactment of this regulation: sections 57 and 58]

\* Parties 1. and 2., above, have confirmed their agreement to comply with the terms and conditions stipulated in Appendix B to this Contaminated Soil Relocation Agreement.

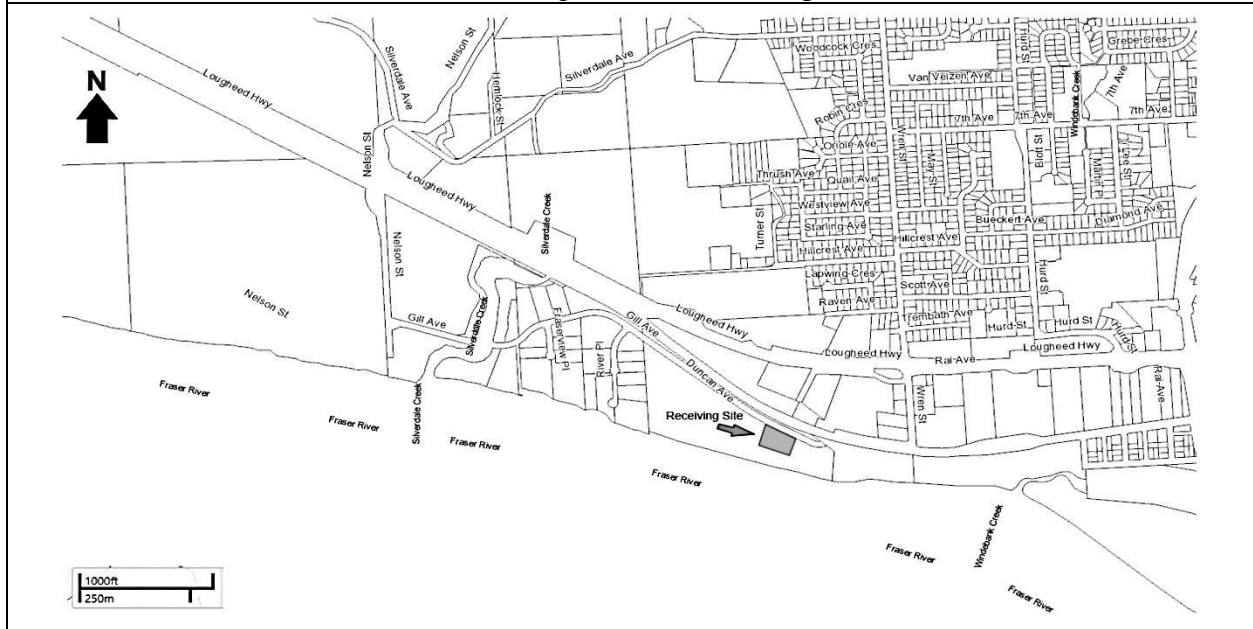
## Appendix A – Maps



## Receiving Site Plan



## Receiving Site Location Map





## **Appendix B – Terms and Conditions**

The following terms and conditions form part of this Contaminated Soil Relocation Agreement.

1. The soil must be fully contained in a soil containment facility maintained as described in the following document(s):

*Construction Work Plan Rev. 4, Esquimalt Graving Docks Waterlot Phase II Remediation Project, Stephen Pinto / Quantum Murray, December 2015*

2. Performance verification must be undertaken as specified in the following plan (attached):

*Performance Verification Plan, Soil Containment Facility, 31870 Duncan Avenue, Mission BC, Michael Sloan, SLR Consulting (Canada) Ltd, March 18, 2016*

or as agreed to by the Director in response to an acceptable request for modification.

3. Up-to-date records of performance verification actions and results must be maintained by the responsible person(s) or their agent. The records must be available for inspection by the Director.
4. If requested by a Director, the responsible person(s) must provide a signed statement on whether the terms and conditions set out in this Contaminated Soil Relocation Agreement are being met. This may include providing a signed statement by an Approved Professional.

18 March 2016

Alan W. McCammon, Delegate of Director  
BC Ministry of Environment  
200 - 10470 152nd Street  
Surrey, BC V3R 0Y3

Project No.: 202.01558.00000  
SITE No.: 18852, 4775

Dear Mr. McCammon,

**RE: PERFORMANCE VERIFICATION PLAN  
SOIL CONTAINMENT FACILITY, 31870 DUNCAN AVENUE, MISSION, BC**

In support of a Contaminated Soil Relocation Agreement to receive contaminated dredged sediments (soil) at the subject receiving site (SITE ID 4775) from 825 Admirals Road, Victoria BC (SITE ID 18852), this Performance Verification Plan sets out the facility features and actions that will be in place to ensure that the soil will be fully contained in accordance with *Administrative Guidance 7 - Completing and Submitting an Application for a Contaminated Soil Relocation Agreement*. The soil will be contained after off-loading from barge shipments to the subject site during the period required before placement in trucks for further transport to an authorized disposal facility.

**Containment Facility**

The containment facility will consist of the following:

- a 40x40 m area on a paved surface enclosed by concrete blocks approximately 2 m high;
- a 12 mil low-density polyethylene liner at the base of the facility to contain leachates from the soil; and
- a leachate storage system that manages all contained leachates for discharge to an authorized facility.

**Performance Verification**

The following actions will be carried out to verify initial and ongoing performance of the containment facility:

- before placement of any materials in the facility, a licensed qualified professional supplied by Armstrong Environmental Services (AES) Inc. will provide a signed Statement of Assurance to the Director that the containment facility has been satisfactorily completed to their design specifications and will fully contain the received soil;
- after placement of materials in the facility, AES Inc. will inspect the facility weekly at minimum while in use and address any performance or maintenance deficiencies;

- AES Inc. has prepared and will implement a spill prevention and response plan for the subject receiving site to mitigate environmental impacts of the on-site soil handling; and
- all records related to these activities will be maintained by Quantum Murray and/or AES Inc., respectively, and will be available upon request.

### Closure

With the implementation of these performance verification measures, the soil received at the subject receiving site will be fully contained in accordance with *Administrative Guidance 7*.

Yours sincerely,  
**SLR Consulting (Canada) Ltd.**



**Michael Sloan, M.Sc., P.Eng., CSAP**  
Senior Environmental Engineer

cc Bill Morgan, Quantum Murray, 100 – 3600 Viking Way, Richmond BC V6V 1N6  
Jim Armstrong, AES Inc., 172-8737-212<sup>th</sup> Street, Langley BC, V1M 2C8

MS/cm

N:\Nanaimo\Projects\PWGSC\202.01558 QMLP - Fraser Pacific Ent - CSRA\Deliverables\CSRA Submission  
Package\Source\160315 QM-CSRA Performance Verification Plan - DRAFT.docx