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NOTICE OF INTEREST

ENVIRONMENTAL REHABILITATION OF SOIL
Former island port facility located in Quebec Province
(For resume...)

Requested by :

**Environmental Services
Publics Works and Government Services Canada
Quebec Region**

Project Number: R.002340.008
June 2009



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1.0 BACKGROUND

With a view to sustainable development, Public Works and Government Services Canada (PWGSC) wants to carry out environmental remediation work at a former island port facility located in the province of Quebec using a soil treatment technology rather than taking an excavation, transport and disposal approach.

The study site, covering an area of about 1,546 m², has a rectangular shape, and is about 175 metres long by 5 to 15 metres wide. It is located on the shoreline.

In the environmental characterization work completed to date, an estimated 1,286 m³ soil has been found to contain concentrations of polycyclic aromatic hydrocarbons (PAHs), copper, lead and zinc that exceed the Canadian Council of Ministers of the Environment (CCME) Environmental Quality Guidelines for “residential/parkland” use.

This rehabilitation work will be carried out to bring the site into line with criteria B in the Soil Protection and Contaminated Sites Rehabilitation Policy of the Quebec Ministry of Sustainable Development, Environment and Parks (MSDEP), as well as the CCME guidelines for “residential/parkland” use. Furthermore, the use of the treatment technology must comply with the applicable regulatory requirements (federal, provincial and municipal).

PWGSC is working with the Montreal Centre of Excellence in Brownfields Rehabilitation (MCEBR) on a protocol for an exhaustive environmental characterization of the site aimed at deriving a more accurate assessment of the volumes of soil affected, assessing groundwater quality and conducting laboratory tests and analyses to determine whether one or more treatment technologies are suitable.

The goal of this notice of interest is to: 1- identify technologies that can be used for in situ soil remediation; 2- draw up a list of firms that could meet the requirements of the notice of interest, and 3- identify and describe the laboratory tests and analyses required in order to implement the technologies. Following analysis of the interested firms, three to five technologies will be selected. The selected answer to the **Notice of interest** will be used to round out the exhaustive environmental characterization program, and will therefore lead to the launch of the rehabilitation program.

Note that the environmental rehabilitation work at this site is slated to begin in September 2009 and the work must be completed within a period of one year from the contract award date. Furthermore, all the rehabilitation work must be conducted on the study site.

2.0 DESCRIPTION OF THE CONTAMINATION IDENTIFIED AT THE SITE

The tables in Appendix 1 summarize the results of the preliminary environmental characterization conducted in December 2007.

Please note that no concentrations exceeding level B of the criteria set out in the above-mentioned MSDEP Policy were found for petroleum hydrocarbons C₁₀-C₅₀, monocyclic aromatic hydrocarbons (MAHs) or PCBs (Aroclors and total PCBs). Furthermore, the analytical results for petroleum hydrocarbons C₁₀-C₅₀, MAHs and PCBs are not shown in the results table provided in the appendix. Finally, no particle-size analysis was carried out,

and the stratigraphic description presented hereinafter corresponds to the site technician's observations.

3.0 CONTENT OF EXPRESSIONS OF INTEREST

The expressions of interest shall contain at least the following elements:

Brief description of the technology (maximum 2 pages);

Three examples of applications similar to the present project. These project fact sheets shall specify, without being limited thereto, the soil matrix, the description of contaminants (including their source), the tests and analyses prior to the rehabilitation work, the contaminated soil and treated soil volumes, the results of the rehabilitation work (initial contamination and contamination after rehabilitation), the duration of the rehabilitation work, the reuse of the treated soil/backfill material, the type and size of the treatment equipment/materials used, the client's contact information and the costs (maximum 3 pages);

A description and list of laboratory tests and analyses required to determine whether the technology is suitable (maximum 1 page).

4.0 SELECTION CRITERIA

The expressions of interest will be selected according to the following criteria:

The content of the expression of interest meets the requirements;

All the rehabilitation work must be completed within a period of 1 year from the contract award date;

The treatment technology must comply with the applicable regulatory requirements (federal, provincial and municipal);

Reuse of soils/fill treated in situ;

All the rehabilitation activities must take place at the study site (narrow site, proximity to sea). In other words, all the required treatment equipment must be installed at and used on the study site.

5.0 SCHEDULE

The consultant shall submit the expression of interest by 2 pm on June 10, 2009.

6.0 TECHNICAL AUTHORITY

Should you have any questions concerning this notice of interest, please contact:

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APPENDIX 1– Tables of analytical results

Table 1 – Volume soil in place exceeding the CCME guidelines for « Residential/Parkland » land use

Zon e	Borehol e	Stratigraphic description	Area (m ²)	Interval	Thickness (m)	Contaminan t(s)	Estimate total quantity (m ³)
A	PU-1, PU-2 et PU-15	Silty sand, with some gravel to a silt with some sand and gravel	258	0,0 to 2,0	2,0	PAH	516
B	PU-4, PU-9 et PU-13	Silty sand with gravel or pebble to a gravel with some sand and silt	181	0,0, to 1,0,	1,0	PAH, zinc	181
B	PU-4, PU-9 et PU-13	Silty sand with gravel and pebble to a sandy silt	181	1,00 to 1,50	0,5	PAH	90,5
C	PU-6 et PU-7	Gravel to a gravelly sand	151	0,0, to 0,5	0,5	PAH	75,5
C	PU-6 et PU-7	Gravelly sand to a silt with some sand and gravel	151	0,5 to 2,0	1,5	Copper, lead, zinc	226,5
D	PU-8	Clayey silt	98	0,0, to 2,0	2,0	PAH	196
TOTAL :							1285,5

Tableau 2 - Volume of soil in place exceeding the level B criteria of the MSDEP Policy

Zon e	Borehol e	Stratigraphi c description	Area (m ²)	Interval	Thickness (m)	Contaminant(s)	Estimate total quantity (m ³)
Concentration level higher than the level B criteria of the MSDEP Policy but lower than the level C criteria of the MSDEP Policy							
A	PU-1, PU-2 et PU-15	Silty sand with some gravel to a silt with some sand and gravel	177	0,0 to 2,0	2,0	PAH	354,0
B	PU-4, PU-9 et PU-13	Gravel with some sand and silt to a sandy silt	181	0,0 to 1,5	1,5	PAH	271,5
C	PU-6 et PU-7	Gravel to a gravelly sand	60	0,0 to 0,5	0,5	PAH	30,0
D	PU-8	Clayey silt	98	0,0 to 2,0	2,0	PAH	196,0
Concentration level higher than the level C criteria of the MSDEP Policy							
A	PU-1, PU-2 et PU-15	Silty sand with some gravel to a silt with some sand and gravel	108	0,0 to 1,5	1,5	PAH	162,0
C	PU-6 et PU-7	Gravelly sand to a silt with some sand and gravel	60	0,5 to 1,0	0,5	Copper, lead, zinc	30,0
TOTAL							1043,5