Government of British Columbia Ministry of Sustainable Resource Management and Partnerships British Columbia

REQUEST FOR EXPRESSIONS OF INTEREST FOR A PUBLIC PRIVATE PARTNERSHIP

FOR THE DESIGN, CONSTRUCTION, FINANCING, OPERATION OF

BRITANNIA MINE WATER TREATMENT PROJECT

January 21, 2004



British Columbia

Ministry of Sustainable Resource Management

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1.0 General

1.1 Introduction

The purpose of this Request for Expressions of Interest (RFEI) is to invite expressions of interest from Persons to design, construct, finance, and operate an acid rock drainage water treatment plant at Britannia Mine, Britannia Beach, British Columbia in return for performance payments.

The Britannia Mine is located approximately 48 km north of Vancouver at Britannia Beach, on the east shore of Howe Sound. The Britannia Mine was one of the biggest copper producers in the British Empire, operated from 1904 to 1963 by the Britannia Mining and Smelting Company Ltd. and by Anaconda Mining Company from 1963 until permanent shutdown in 1974. The Crown Grants and freehold rights to the Britannia Mine lands were transferred to Copper Beach Estates Ltd. in 1979.

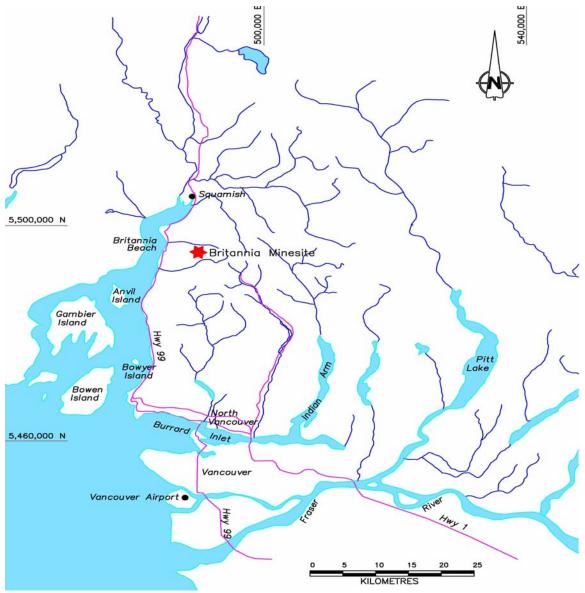
During operation, approximately 80 km of underground workings and five open pits were excavated, with the ore processed in the milling facilities at Britannia Beach. Rocks in the Britannia area, once exposed to air by mining or other excavation activities, are susceptible to bacterial leaching. The resultant acid rock drainage (ARD) flows into Howe Sound. The ARD problems at Britannia, and possible solutions, have been studied extensively over the years, often funded through both federal and provincial initiatives.

In 2001, the Province entered into an agreement with the former mine operators whereby a sum of money was contributed towards remediation purposes in exchange for a provincial indemnity against future liability. Responsibility for managing the Remediation Project was assigned to the Ministry of Sustainable Resource Management (MSRM) early in 2003, with the Ministry of Water, Land and Air Protection (MWLAP) retaining responsibility for the regulatory function under the *Waste Management Act* (WMA).

Expressions of Interest (EOIs) are invited that respond to the requirements of this RFEI, demonstrate an understanding of the desired outcomes, and address the key objectives set out in Section 2.1. All EOIs will be evaluated in strict accordance with the criteria stated in Section 10. The Respondents who submit the highest rated EOIs that best meet the criteria set out in this RFEI, may be selected as the short-listed Proponents at the sole and absolute discretion of the Province, who will be invited to submit detailed proposals in response to a comprehensive Request for Proposal (RFP) to be issued by Partnerships BC (PBC) on behalf of the MRSM.

If, in the sole and absolute discretion of the Province, it is determined that none of the responses sufficiently meets the needs of the MSRM as defined in this RFEI, the MRSM reserves the right not to proceed with the issuance of an RFP. All costs incurred by Respondents in responding to this RFEI are solely to the Respondents' account. Under no circumstances, including the cancellation of this RFEI and/or the decision not to proceed with the RFP process, will the MRSM or PBC be liable for any costs incurred by Respondents; furthermore, *in no way will this document suggest or constitute a contractual arrangement between the Respondents and either the MRSM or PBC.*

1.2 Location Map



2.0 Britannia Mine Water Treatment Plant Project

2.1 Project Objectives

The MSRM believes that there may be cost savings on a life cycle cost basis by proceeding with the development of the Britannia Mine Water Treatment Plant Project (the Project) using a design, build, finance, and operate (DBFO) approach. The MSRM has no preferred technical solution provided that the technology chosen meets the design and discharge criteria and that the Concessionaire assumes all responsibility for the chosen technology.

The objective of this RFEI is to obtain EOIs from firm(s) with the capability to undertake the Project so that the MSRM may determine a shortlist of Proponents who will be

invited to submit detailed technical and financial proposals in response to a comprehensive RFP.

The key objectives related to the Project are:

- The water treatment system will provide suitable treatment for mine water, and environmentally-acceptable disposal of sludge or treatment by-products, if applicable.
- The proposed water treatment solutions will conform to all applicable requirements of authorities having jurisdiction with respect to design, construction, operations and maintenance and oversight.
- The water treatment plant (WTP) will be designed, built and operated in a manner that provides the best overall value to the Province.
- The WTP should be sufficiently flexible to permit upgrading in an affordable manner.

2.2 The Project

The MSRM is undertaking the Britannia Mine Remediation Project to mitigate the effects of historic mining operations at the Britannia Mine. This includes work that is unrelated, or only tangentially related, to the design, construction and operation of the water treatment plant and ancillary infrastructure, as well as work that is specifically excluded from the scope of this RFEI.

The term "the Project" in this RFEI means the entire scope of work as defined in the RFEI, including the design, construction and operation of the water treatment plant and all ancillary infrastructure. The term "WTP" refers to the water treatment plant itself. The proposed WTP will treat the contaminated water from Britannia Mine before it enters Howe Sound. The successful private sector consortia (Concessionaire) will be responsible for the design, construction, financing, and operation of the Project.

The following is a brief summary of the proposed project scope. The MSRM reserves the right to change any or all of the following scope description. A more detailed description of the project scope will be available in the RFP.

2.2.1 Scope Associated with Design, Construction, Commissioning of the Project

- The mine water conveyance system from the 4100 Level portal to the WTP.
- A WTP capable of treating acidic mine waters at a design flow rate of 1,050 m3/hr to meet the discharge criteria specified in Appendix C.
- An outfall system capable of conveying treated water from the WTP to Howe Sound. MSRM is currently completing the design to the level required for the preparation of permit applications. The design and construction of the outfall may be excluded from the scope of the project. Additional information on the outfall, if applicable, will be addressed in the RFP. The MSRM will propose a risk sharing arrangement with respect to the outfall in the RFP.

- Power lines from the existing BC Hydro substation, site power distribution, site lighting, potable water supply, site communications, site grading and drainage, security fencing, and landscaping. More information on the interactions with BC Hydro and the potable water supply will be available in the RFP.
- A system is required for untreated water to bypass the WTP when the volume of water entering the mine workings exceeds both the capacity of the plant and the available storage capacity. The untreated mine water may need to be co-mingled with treated effluent before it enters Howe Sound.
- Procedures for project management, document control, quality control, and quality assurance.
- Procedures to address construction and operational safety, and compliance with both the operational guidelines established by the MSRM with respect to the operation of the WTP, and the *Mines Act*. This includes definitive Hazard and Operability Analysis (HAZOP), or a similar approach.
- Shake down and commissioning of the WTP and all ancillary systems.
- Obtaining permits and approvals from authorities having jurisdiction as required; a preliminary assessment of the required permits is attached as Appendix E. While this is not necessarily complete it provides a preliminary indication to Respondents as to the scope of the permitting requirements.

2.2.2 Scope Associated with Operations of the Project

During the operating phase of the Project it is envisioned that the Concessionaire will be required to perform the following tasks; however, the MSRM reserves the right to change these requirements in the RFP:

- Provide trained personnel to operate and maintain all facilities; provide adequate supplies of chemicals, maintenance and repair supplies.
- Operate the WTP and associated infrastructure/systems when water is available for treatment.
- Maintain the WTP and associated infrastructure/systems in standby condition when not treating water (e.g. sludge re-cycling or disposing of any residuals, if applicable).
- Manage the mine reservoir to maximize the volume of water treated and minimize the volume of mine water that by-passes the WTP. The RFP will contain additional definition of the Concessionaire's responsibilities. The intention is that the Concessionaire will be responsible for matters within its control, but not be responsible for any changes in the mine water reservoir resulting from collapse of the mine workings, natural changes in the reservoir or other matters that are beyond the reasonable control of the Concessionaire.
- Collect and compile data related to snow pack, snow melt, reservoir levels, and use this information to manage the flow of water to the WTP.

- Maintain all permits required to continue operation of the WTP and associated infrastructure/systems.
- Management of the sludge or by-products from the WTP including the ultimate disposal of the sludge or by-products.
- Collect and compile all WTP operational data, including effluent chemistry, pH, and total suspended solids (TSS) parameters in accordance with a schedule that will be developed prior to issuing the RFP.
- Operate the WTP in strict compliance with all Contractual Service Requirements.
- Develop a long term budget for costs required to maintain, repair, and operate the WTP and associated infrastructure/systems.
- Operate the WTP within the operating guidelines for routine operation, as established by the MSRM.
- Perform all sampling in accordance with the operating guidelines
- Make capital expenditures required to maintain the condition of the buildings and WTP facilities and replace any elements of the WTP that may require replacement.
- Perform routine maintenance, repairs and replacements, and annual rehabilitation in accordance with an annual operating and maintenance audit, which will be performed by an independent contractor to the MSRM.
- Perform "extraordinary work" related to the WTP facilities as requested by the MSRM.
- Abnormal circumstances, to be defined in the RFP, will be managed in coordination with MSRM.

The Concessionaire will not be responsible for the collection, compilation or interpretation of environmental data collected with respect to the marine ecosystem in Howe Sound.

The Concessionaire will design and develop the layout of all facilities and structures, including roadways and drainage, taking into consideration the process requirements, adequate space, access for ease of operation, maintenance, safety and construction sequencing and integration of WTP into surrounding site.

2.3 Disposal of Sludge and/or Process By-Products (If applicable)

In addition to the WTP, the MSRM will require the Concessionaire to develop, manage and execute a comprehensive and efficient program to provide a long term management solution for the disposal of any residual sludge, by-products or residues that may result from the water treatment process, depending on the proposed technology. Any sludge and/or by-products must be capable of passing the BC Special Waste Extraction Procedure (SWEP) test, and not be considered as a Special Waste in the Province of British Columbia. Any sludge and/or by-products must be disposed of in compliance with provincial regulations. The MSRM will allow temporary and/or permanent storage in the property it owns at Britannia, subject to the Concessionaire obtaining the necessary regulatory approvals. The availability of land for temporary storage within the BC Hydro right-of-way at the 4100 Level is being investigated by the MSRM. The availability of this land will be confirmed in the RFP.

A Respondent may suggest a technology that produces no sludge and/or by-product; however, for any proposed technology that does produce a sludge and/or by-product, Respondents are expected to present information related to a disposal process in their EOI concerning environmentally acceptable sludge and/or by-products. The Respondent may be expected to explore after market opportunities for the sludge and/or by-products in the RFP.

The MSRM has evaluated several options for the re-use or disposal of the sludge that would be produced from a treatment plant using the High Density Sludge (HDS) process. Disposal sites on the Province's property (Mount Sheer and Jane Basin), as well as off-site locations have been studied and evaluated. The locations on the Province's property are considered to have some long-term geotechnical risks, however, these locations may still be considered for sludge disposal. The potential for the HDS sludge to be re-used as a component of cement kiln feed has been explored. It is considered that it may have potential once the cement manufacturers can conduct a full-scale test with several hundred tonnes of sludge from an HDS plant.

Respondents must not contact landowners regarding potential locations for a long-term disposal or impoundment facility at this stage in the procurement process.

3.0 Commercial and Financial Concepts

The following section provides background information regarding the commercial structure of the DBFO. This information is subject to change and the final details will be available in the RFP document.

3.1 Business Arrangements

The business arrangements may be governed by the following principles:

- The Concessionaire will assume the financial risks relating to design, construction, operation and maintenance costs of the WTP.
- It is projected that the Concessionaire will operate the WTP for an initial twenty year period (the Operating Period); however, the Province is contemplating adopting a thirty year operating term. Respondents are expected to include comments on a thirty year term in their EOIs.
- The Concessionaire may be required to create a Maintenance Fund (e.g. identify sufficient and fully funded rehabilitation reserves) to ensure that the WTP is maintained in good order.

3.2 Business Principles

The principal elements of a potential business arrangement will likely be as follows:

- The Concessionaire will design and construct the WTP.
- The Concessionaire will finance the design, construction, operation and maintenance of the WTP.

- The Concessionaire will be responsible for operation and maintenance, and ongoing monitoring of the effluent quality of the discharge from the WTP.
- The MSRM is prepared to pay the Concessionaire through a performance based payment mechanism, subject to the Concessionaire meeting the Contractual Service Requirements. A proposed payment schedule will be expected from Proponents during the RFP stage.

3.3 DBFO Contractual Arrangement

The MSRM's goal is that capital, operational and life cycle cost savings will be achieved through the application of innovative design and operating procedures. In order to reduce the technical risk to the Province as well as encourage and motivate the private sector to achieve optimum performance, a DBFO contractual arrangement is envisaged that will embody the following principles (to be confirmed in the RFP):

- The Concessionaire, upon financial close, will provide the MSRM with a substantial performance surety in an acceptable form.
- The Concessionaire will receive payments, via a performance based payment mechanism, subject to the achievement of Contractual Service Requirements.

More specific information, including a provision to address and acknowledge the potential for isolated non-compliant occurrences during the commissioning, Substantial Completion and Operational Acceptance periods will be detailed in the RFP.

4.0 Technical Information and Performance Criteria

4.1 General Design Criteria

4.1.1 Design Parameters

The MSRM has established the following design parameters for the treatment of mine waters:

- All effluent must meet the Contractual Service Requirements, which are based on effluent discharge requirements contained in the relevant legislation, being the WMA and *Fisheries Act* (FA); and will be expected to meet the design criteria for dissolved metals, pH and TSS set out in Appendix C.
- Consultations have indicated that the WTP will likely be located at the 4150 Level as shown in Appendix B, but may be located elsewhere, subject to the Respondent's technical design.
- The predictions of the chemical composition of the mine waters contained in Appendix D are the best information available but the Concessionaire must satisfy itself in this regard. The WTP will be expected to meet the discharge criteria stated in Appendix C, while treating mine waters within the range of chemical composition shown in Appendix D.
- The existing mine workings act as a reservoir for the WTP. The storage capacity has been estimated to be at least 300,000 m³. The existing plug

and controls in the 4100 Level adit may be accepted or replaced by the Concessionaire.

- A design capacity for the WTP of at least 1,050 m³/hr.
- The WTP must have sufficient flexibility to be able to operate at flow rates as low as 25% of the design capacity.
- In the event that the reservoir is at capacity, controlled emergency discharges will be permitted to by-pass the WTP, providing that they are mixed with the treated water prior to discharge to the environment. Additional neutralization may be required during these by-pass events to achieve a pH of at least 9.0 in the combined effluent.
- Any sludge or by-product material from the WTP must have chemical and physical characteristics that do not cause it to be classified as a Special Waste in the Province of British Columbia.
- All facilities will be expected to comply with the requirements of the *Mines Act* and any applicable local government regulations of the area.

4.1.2 Effluent Collection and Treatment Criteria

It is the MRSM's goal that the WTP provide the best practicable effluent treatment over the long term. It is understood that processes change over time, at that time when more efficient proven technologies evolve, the MRSM will negotiate compensation with the Concessionaire to design and construct changes to the existing plant in order to accommodate the more efficient processes.

All effluent will be expected to meet the effluent discharge requirements contained in the relevant legislation, being the WMA and *Fisheries Act* (FA).

4.2 Environmental Approvals

The project will require permits and/or approvals from authorities having jurisdiction. A preliminary list of those permits together with their current status and responsibilities is attached at Appendix E. The MSRM is responsible for obtaining permits and approvals that are critical, to be further defined in the RFP, to the viability of the project. These include permits and approvals related to the discharge of the WTP effluent through a marine outfall, and landowner approvals to install the outfall. The MSRM has applied for the effluent discharge permit, and expects to receive it before issuing the RFP. The criteria proposed in the permit application are described in Appendix C. Effluent will be expected to meet the criteria contained in the discharge permit, once it is approved. The MSRM is initiating other permit applications in the first quarter of 2004.

Outfall construction is expected to require approvals under the *Fisheries Act* and the *Navigable Waters Protection Act*. Outfall construction may also require approval under the *Canadian Environmental Assessment Act, 1999*. MSRM will be preparing permit applications to expedite the approval process and provide definition to the requirements under these Acts.

The Concessionaire will also be responsible for all permits and approvals that entail the design of specific facilities. These include demolition and construction permits from MEM, and all other permits that would normally be obtained during the construction

phase. In the event that the Concessionaire wishes to store sludge or by-products, it will be responsible for obtaining these permits under the WMA and the *Mines Act*.

4.3 Treatment Process Technology

To be acceptable, the Respondent should be able to demonstrate that the ARD water treatment technology is proven and capable of processing similar volumes of acidic, metal-contaminated water to produce effluent which consistently meets or improves upon the Average Monthly Values in Appendix C.

A single plant example meeting all these criteria and achieving all the requirements specified in this RFEI is preferable to a combination of plant examples meeting volume and climatic criteria while achieving the Average Monthly Values. Names and contact information of independent references will be provided by Respondents to verify installation and claims of performance. The Province reserves the right to disqualify any technology at any time if, in its opinion, the submitted performance representations cannot be independently verified. Experimental or unproven technology will not be accepted.

Respondents will state their preferred process technology in their EOI, and must also include sufficient information to clearly demonstrate that it is proven and capable of processing similar volumes of acidic, metal-contaminated water to a similar standard.

Technology accepted through this procurement process may be subject to final approval by regulatory authorities.

5.0 Background Information

In 2003, the Province acquired title to a majority of the subject property and the Province now owns the majority of the mineral claims and mine workings as well as associated surface rights. Other lands in the area are owned by Britannia Bay Properties Ltd. (BBPL) and the Britannia Beach Historical Society (BBHS).

The studies and investigations performed by the MSRM and the Britannia Mine Remediation Project team have addressed the three main areas of environmental concern:

Mining and Mine Hydrology: These investigations have addressed the condition of the existing mine workings, focusing upon the workings that are intended to be used as the storage reservoir for mine water to be treated in the WTP. This program provided the basis for the estimating the capacity of the reservoir, the storage requirements, and the annual flow through the mine workings, which in turn determined the required capacity of the WTP. This work was primarily performed by SRK Consultants and Klohn-Crippen.

Water Treatment: These investigations included a pilot plant test of the high density sludge (HDS) technology, site selection studies for the WTP and outfall, studies of sludge disposal options, and a feasibility study of a WTP, based upon application of the HDS technology. The relevant engineering studies were primarily undertaken by AMEC E & C Canada Ltd.

Several pilot plant-type testing programs have been conducted on the Britannia mine waters. These test programs conducted using the High Density Sludge (HDS) technology, have provided the basis for the development of acceptable concentrations of metals in the WTP effluent.

The first program, conducted under the sponsorship of Environment Canada, evaluated several neutralizing agents. The second program, sponsored by MWLAP in 2001, used only lime as the neutralizing agent. This second program included pilot test runs with both the "run of mine" water and a "spiked" sample developed to simulate a higher metal loading indicative of the metal loadings that might occur when the mine workings are used as a reservoir. Both test programs were performed by Canada Environmental and Metallurgical Inc.

Contaminated Sites: These investigations assessed the extent of the surface contamination, the quality and quantity of contaminated groundwater, and surface water runoff. The contaminated sites investigation was conducted primarily by URS Corporation.

6.0 Information Sources

6.1 The Web Page and Electronic Data Room

Information regarding the Britannia Mine Remediation Project generally will be available at <u>www.britanniamine.ca</u>. This website will contain a link to an electronic data room specifically for the Project which will contain this RFEI, any addenda hereto as well information relating to the Project, all under the heading **WTP_Request for Expression of Interest**. In addition, the electronic data room will contain lists of all reports and studies relating to the Remediation Project which are in the possession of MSRM, as well as copies of those reports and studies which MSRM believes are relevant to the Project. If a Respondent wishes to obtain a copy of any report listed in the electronic data room, a copy of which is not set out in full, such Respondent may request a copy from the Contact Person. Additional relevant information will be posted to the electronic data room from time to time, including the questions of respondents, answers to those questions and any revisions to solicitation documents. The website for the Remediation Project will be public, so no password is required. The electronic data room will also be public, but MSRM reserves the right restrict access during the RFP stage.

6.2 Reliance on Information

All information posted on the website for the Remediation Project generally or specifically in the electronic data room for the Project or which is provided pursuant to any request for information made by a Respondent has been obtained from sources which are believed to be reliable and is made available to the Respondents in good faith. However, no representation, express or implied, is made as to the accuracy or completeness of such information or that such information is suitable for the purposes of any Respondent, and MSRM and MWLAP and PBC expressly disclaim any and all liability for any errors or omissions in such information or which may be contained in any oral or written communication transmitted or made available to any Respondent. The submission of an EOI by a Respondent will confirm the agreement of such Respondent to the disclaimer of liability contained in this paragraph.

6.3 Partnerships BC Business Directory

The PBC Business Directory, an online directory for all PBC projects, provides an opportunity to interact for persons seeking business arrangements or who may be interested in participating in PBC projects ("Business Directory"). Any business may place information in the online Business Directory such as contact details, brief

description of organization, nature of services offered and relevant expertise. Further, any business may access the Business Directory online to seek organizations for potential business arrangements. Such placements do not, however, assure the formation of a consortium, joint venture, partnership or other business arrangement and do not assure participation in any PBC project, including the Britannia Mine WTP Project. Placement of information on the Business Directory is optional and is not part of the Selection Process.

The Business Directory can be accessed as follows:

http://www.partnershipsbc.ca/business/bu_directory.asp

Users of the Business Directory are responsible to verify the accuracy, reliability, relevance and sufficiency of all information in the Business Directory and the status, standing, capabilities or experience of any listed Person. The MSRM and PBC do not review, verify or approve the information in the Business Directory and therefore are not responsible for, and do not make any representation with respect to, such information. Continuous access to or operation of the Business Directory is at the sole and absolute discretion of the MSRM and PBC. Either the MSRM or PBC may refuse or choose not to post any information on the Business Directory.

7.0 Conflict Of Interest

7.1 No Use of or Inclusion of Restricted Parties

Restricted Parties:

- (a) are not eligible to advise any Respondent in the RFEI Selection Process; and
- (b) must not participate as an employee, advisor, consultant or member of any Respondent.

The Province may, at its sole and absolute discretion, disqualify a Respondent who uses in any manner or who includes in its EOI a Restricted Party. The onus is on the Respondent to ensure that it does not use or include any Restricted Party.

7.2 Who are Restricted Parties

At this RFEI Stage, the Province has identified the following Persons as Restricted Parties because of their direct and recent or current involvement in the RFEI Selection Process or the planning or implementation of the WTP:

- JR Huggett Co
- Libra Project Services Inc
- Golder Associates Ltd and affiliated companies
- Clark, Wilson
- SRK Consulting Ltd
- Klohn-Crippen Consultants Ltd
- ORION Facilitated Planning Inc
- Laurion Consulting Inc.

This is not an exhaustive list of Restricted Parties. Additional Persons may be added to the list at any stage of the Selection Process. Neither the Province nor any of its employees, advisors and representatives is liable to any Respondent for any claims, whether for costs of preparation of the EOI, loss of anticipated profit, loss of opportunity or any other matter whatsoever, for any use or reliance on this list or use or inclusion of Restricted Parties in any submission for the Selection Process.

8.0 Rules of Procedure

8.1 Contact Person

All communications or enquiries about this RFEI must be made by email, in writing, or facsimile to the Contact Person:

Sue-Anne Fimrite Project Consultant Partnerships BC Suite 1250 – 999 West Hastings Street Vancouver, BC V6C 2W2

Email: sueanne.fimrite@partnershipsbc.ca

Fax: 250-356-2222

Deliveries of communications or enquiries at the office of the Contact Person will be accepted weekdays from 9:00 am to 5:00 pm local time and must clearly state "Britannia Mine WTP RFEI Enquiry". Communications or enquiries to and responses from the Contact Person may be recorded and may, at the Project Team's discretion, be distributed to all Respondents. The Project Team reserves the right not to respond to any enquiry or communication made by a Respondent, or to keep in confidence enquiries and communications from an individual Respondent, and responses given, that relate to a particular technical or financial approach to the WTP.

The Province is not responsible for any error that may occur from submission of communications or enquiries.

8.2 No Unauthorized Contact

All communication on matters related to the Project or the RFEI Selection Process must be directed in writing to the Contact Person. Respondents must not attempt to, or actually, communicate directly or indirectly on matters related to the Project or the RFEI Selection Process with any representative of any Restricted Party, the Province or any other government employees who are involved in the Project or the RFEI Selection Process under the penalty of peremptory disqualification from the procurement process.

Information offered from sources other than the Contact Person with regard to the content, intent or interpretation of this RFEI or the Background Information Website is not official, may be inaccurate and should not be relied on in any way by any Person for any purpose.

8.2.1 No Lobbying

Respondents, any member of a Respondent or Respondent's consortium will not engage in any form of political or other lobbying whatsoever with respect to the Project or to influence the outcome of the procurement process. In the event of any such lobbying or communications, PBC, at its sole and absolute discretion, may at any time, but not be required to, reject any EOI submitted by that Respondent without further consideration and either terminate that Respondent's right to continue participating in the RFEI stage and subsequent stages of the procurement process, or impose such conditions on that Respondent's continued participation in the procurement stage as PBC, at its sole discretion, may consider in the public interest or otherwise appropriate.

8.3 Clarification of RFEI

Each Proponent should review the entire RFEI, including any and all addenda, prior to submitting an EOI. Any request for clarification of issues related to the RFEI must be transmitted to the Contact Person not less than 10 days prior to the Submission Time.

8.4 Registered Proponents

Any Person who wishes to become a Respondent is required to complete the Cover Letter (Section 11.1 - Schedule A) and return it to the Contact Person. Only Respondents may submit an EOI submission, attend the Information Meeting and receive addenda to this RFEI. Cover Letters will be accepted at the Information Meeting.

8.5 Addenda

Written addenda are the only means of varying, clarifying or otherwise changing any of the information contained in this RFEI. The Province reserves the right to issue addenda up to five (5) business days before the EOI Submission Time. The addenda will be posted to the Britannia Mine RFEI electronic data room and a notification will be sent to all Respondents. Respondents not acknowledging in writing receipt of all addenda, may have their EOI rejected.

8.6 Respondent's Contact Person

Respondents must submit, with their Cover Letter an Expression of Interest Form (Section 10.2 – Schedule B) containing contact information on the Respondent's Contact Person.

8.7 Cost of Preparing Expression of Interest

Respondents are solely responsible for all costs they incur in the preparation of their EOIs.

8.8 Clarification of Expressions of Interest

The Province reserves the right but not the obligation to request clarification of an EOI or request further information from any or all Respondents. In addition, if, in the opinion of the Province, any EOI contains a minor defect or irregularity or fails in some way to comply with any requirement of this RFEI in a way that, in the opinion of the Province, can be remedied without providing an unfair advantage to one or more Respondents, the Contact Person may request clarification from the Respondent.

The Province, upon receipt of appropriate clarification, may waive the minor defect or irregularity and accept the EOI. Failure by a Respondent to provide a written response that, in the opinion of the Province, properly clarifies its EOI within the time specified in the request for clarification may result in disqualification of the EOI.

8.9 Notification of Success at this RFEI Stage

A written notice in the form of a letter to the Respondent's Contact Person is the only valid form of notification of success at the RFEI stage and, upon the execution of a confidentiality undertaking by the Proponent, eligibility to proceed to the RFP stage.

8.10 Reservation of Rights

The Province reserves the right, in its sole and absolute discretion, to:

- modify, cancel or suspend the Selection Process or any or all stages of the Selection Process at any time for any reason;
- accept or reject any EOI based on the Evaluation Criteria as determined in the sole and absolute discretion of the Province;
- not accept any EOI; and
- reject or Disqualify all or any EOI without any obligation, compensation or reimbursement to any Person.

8.11 Limitation of Damage

Each Respondent, by submitting an EOI, agrees that:

- in the event any or all EOIs are rejected or disqualified or the WTP or Selection Process is modified, suspended or cancelled for any reason (including modification of either or both the RFEI or the RFP), neither the Province, or its employees, advisors or representatives will be liable, under any circumstances, for any claim or to reimburse or compensate any Person in any manner whatsoever, including but not limited to, costs of preparation of the EOI, loss of anticipated profits, loss of opportunity or for any other matter; and
- the Respondent waives any claim for loss of profits or loss of opportunity if the Respondent is rejected or disqualified or is not successful in the Selection Process.

8.12 Freedom of Information and Protection of Privacy Act

All documents and other records in the custody of or under the control of the Province are subject to the *Freedom of Information and Protection of Privacy Act* and other applicable legislation. Except as expressly stated in this RFEI and subject to this Act or other applicable legislation, all documents and other records submitted in response to this RFEI will be considered confidential.

8.13 Disqualification

Expressions of Interest may be disqualified at the sole and absolute discretion of the Province if:

- A Restricted Person is acting as an advisor or member of the Respondent's team;
- The Respondent makes contact with any Person who the Respondent is prohibited by the RFEI from contacting;
- they do not comply with the requirements of this RFEI unless they can be remedied or clarified under Section 7.6; or
- they include a false or misleading statement or claim.

9.0 Process and Schedule

9.1 Process

The Respondent will submit its EOI on the basis of the requirements of the RFEI, and the Respondent's further investigations. EOI submissions should include all of the information requested in the RFEI in the format shown in Section 9.4.

9.2 Schedule

Proponents are requested to comment in their responses to this RFEI, on the Preferred Schedule and in particular, to provide their estimated time to design and construct the WTP, up to commencement of commissioning.

The Concessionaire will have a specified time period that will be defined in the Agreement to design and construct the WTP. The Concessionaire will have an additional specified time period from the date the WTP is commissioned to achieve Operational Acceptance by the MSRM, whereby the WTP meets all Average Monthly Values for the discharge criteria for effluent contained in Appendix C, while operating at the design capacity over 30 consecutive days.

9.2.1 Preferred Schedule:

ISSUE REQUEST FOR EXPRESSIONS OF INTEREST:	January 2004
INFORMATION MEETING	February 5, 2004
CLOSING DATE FOR SUBMISSION OF RFEI RESPONSES:	March 5, 2004
ISSUANCE OF REQUEST FOR PROPOSALS:	April 2004
PROPONENT'S MEETING	May 2004
CLOSING DATE FOR SUBMISSION OF PROPOSALS:	June 2004
NOTIFICATION OF SELECTION OF PROPONENT:	September 2004
SIGNING OF AGREEMENT:	September 2004
TARGET DATE FOR OPERATIONS COMMENCE AT WTP	September 2005

9.3 Information Meeting

The Project Team will convene an information meeting in Vancouver BC to which all Registered Proponents will be invited. The Project Team may, at its own discretion, including in response to a request of a Respondent, convene further information meetings. Attendance at any of these meetings is optional. Any additional information or clarification that the Project Team decides is required will be covered by written addenda.

A summary of minutes taken during the Information Meeting will be posted in the electronic data room along with Respondent's questions and answers.

The information meeting will be held at:

Location:	Delta Vancouver Suites,
	550 West Hastings, Vancouver

Date: February 6, 2004

Time: 09:00 am to 12:00 pm

Please RSVP to the Contact Person via email by February 3rd, 2004 including company name, with an email address, and expected number of participants.

9.4 Pilot Plant Tests

Subject to certain conditions, which are outlined below, MSRM will supply "run of mine" water from the 4100 Level adit to any Respondent who may wish to conduct further bench-scale or pilot-scale testing. Respondents wishing to receive samples of this water must advise the Contact Person in advance, stating the volume of water required, and the planned duration of the testing program. MSRM makes no assurances or warranties that the water supplied will be similar to the mine water to be treated in the future.

MSRM will also make space available in the foreshore parking lot to the west of the B C Mining Museum in the event that a Respondent wishes to establish a temporary pilot plant test facility. MSRM will arrange for the delivery of up to 5,000 litres/day water to the facility at no cost to the Respondent. The Respondent will be responsible for the supply of storage tanks for a minimum of three (3) days supply of untreated water, tanks for the storage of treated water, temporary power and any other services required. The Respondent will be required to enter into an agreement with MSRM to ensure that the Respondent is fully responsible for all aspects of the pilot test program, including the removal of all facilities, supplies, waste products and debris at the completion of the pilot test program. The Respondents will be permitted to discharge treated water into MSRM's discharge line. Respondents will not be permitted to discharge water directly into Howe Sound.

Provision of the water for the purposes of on-site pilot plant testing is subject to the Respondent providing complete information on the chemicals to be added during the pilot test and the expected concentrations of these chemicals in the treated water. In the event that MSRM, at its sole discretion, concludes that the treated water is not suitable for discharge into its existing water management system, the Respondent will be responsible for the disposal of the treated water at an off-site disposal facility that is currently permitted to accept such waste waters.

Except for the supply of mine water, and allowing use of the existing water discharge system to discharge acceptable treated water, the Respondent will be totally responsible for any testing program.

Insurance acceptable to MSRM will be required for pilot plant testing activities; please contact the Contact Person if the Respondent wishes to conduct these tests.

9.5 Submissions of Expression of Interest

The submission should contain the information outlined below and should comply with the following table of contents. Material in any other format may not be considered.

1.0 COVER PAGE

Identify all Respondent members.

- 2.0 TABLE OF CONTENTS
- 3.0 DESCRIPTION OF RESPONDENT

Provide a description of the Respondent, including a description of Respondent members and the anticipated legal relationship among the Respondent members (e.g. partners, shareholders and consultants) with respect to the design/construction elements.

- 4.0 DECLARATION LETTER(S)
- 5.0 FINANCIAL CAPACITY AND STABILITY of the RESPONDENT
- 6.0 PROJECT UNDERSTANDING

Provide a description of the technology proposed, funding arrangements, and a clear demonstration that the technology is proven to meet the criteria required by RFEI. This must include both the technical and economical viability of the proposed technology.

7.0 RESPONDENT ORGANIZATION/STRUCTURE

8.0 RESPONDENT CONTACT

Provide a Contact Person for all future communications between PBC and the Respondent. Please identify the Person's name, title, organization, address, E-mail, telephone number and fax number.

- 9.0 KEY MEMBER/PERSONNEL ROLES
- 10.0 PREVIOUS WORKING RELATIONSHIPS
- 11.0 RELEVANT DEMONSTRATED EXPERIENCE

Provide project cases where key team members were involved in the design, construction, or operations management of water treatment plants. The project cases must be within the last five years and the specific role of team members must be indicated.

- 12.0 QUALITY MANAGEMENT APPROACH
- 13.0 RESUMES

9.5.1 Submission Location and Submission Time

The Submission Location for EOIs is:

Sue-Anne Fimrite

Project Consultant Partnerships BC Suite 1250 – 999 West Hastings Street Vancouver, BC V6C 2W2

EOIs must be submitted by hand or courier to the Submission Location before the Submission Time. Expressions of Interest submitted by post, facsimile, or email will not be considered. Deliveries of EOIs at the Submission Location will be accepted weekdays from 9:00 am to 5:00 pm Pacific Standard Time.

The Submission Time is no later than 2:00 pm Pacific Standard Time on March 5, 2004.

EOIs received after the Submission Time will not be considered, and will be returned unopened.

9.5.2 Expression of Interest Requirements

Each EOI **should:**

 be loose-leaf or in 3-ring binder(s) on single sided 8.5" x 11" paper and every page should be numbered;

- be in text of 1.5 X spaced and not smaller than 11 point typeface where practical;
- include one original and ten (10) copies of the entire EOI;
- include the name of the Respondent and a return address on the exterior of the sealed container; and
- be clearly marked "Britannia Mine WTP Expression of Interest" on the exterior of the container.

Each Expression of Interest **must**:

- be in English;
- be enclosed in one sealed container;
- be addressed to the Contact Person;
- be received (by hand or courier) at the Submission Location by the Submission Time;
- include a properly executed EOI Cover Letter (Schedule A);
- include the completed EOI Contact Details Form (Schedule B); and
- include an authorization in favour of the MSRM authorizing the MSRM and its advisors to make such enquiries as the MSRM deems appropriate of any reference provided by the Respondent as well as any Person involved with the services referenced by the Respondent in the EOI in relation to past relevant projects undertaken by the Proponent.

The Province may reject an incomplete EOI at its sole and absolute discretion.

Each EOI may include additional materials and brochures; however, the Province is not obliged to, and may not, consider such information.

9.6 Submission of EOI

No financial deposit is required with the submission of the EOI.

9.7 Deposits for Short Listed Proponents

9.7.1 Short-listed Proponent

All short listed Proponents will be required to provide a deposit of \$50,000 within 5 working days of being notified. They will have three (3) business days to withdraw from the competition after receipt of the RFP without loss of the deposit. The \$50,000 deposit is not refundable after the three (3) business days if a valid proposal is not submitted.

9.7.2 Proponent who is successful in the proposal call process

The Preferred Proponent will be required, upon selection, to replace its \$50,000 deposit with a new deposit of \$100,000 within five (5) business days of notification. The \$100,000 deposit delivered by the Preferred Proponent will be held as security for the obligation of the Proponent to execute the Agreement

complete with appropriate contract security or bonding requirements as well as insurance requirements of the WTP.

All refundable deposits will be returned, with the exception of the Preferred Proponent's, after the successful award of the contract.

10.0 Selection Procedure

10.1 Process Conditions

This RFEI and the RFEI documents do not create a tender process. This RFEI is not an invitation for an offer to contract and it is not an offer to contract made by the Province. By this RFEI, the Province reserves to itself the right to consider and analyse the EOIs, select short-listed Proponents, issue the RFP for detailed proposals, and sign an agreement with the Preferred Proponent.

Without limiting the generality of the foregoing, the Province reserves the right to:

- reject any EOI, whether or not complete and whether or not it contains all the required information;
- require clarification of any EOI;
- request additional information on any EOI;
- reject any or all EOI's without any obligation, or any compensation or reimbursement to the Respondents;
- refuse to issue an RFP;
- re-advertise for new submissions or call for tenders for this work or for work of a similar nature.

The Province may, in its sole and absolute discretion, independently verify any information in any submission. The Province reserves the right to debrief both successful and unsuccessful Respondents after the announcement of the Proponents qualified under the RFEI and prior to the issuance of the RFP.

10.2 Qualifications

A Professional Engineer registered to practice engineering in British Columbia will stamp all design drawings and specifications.

10.3 Changes in a Proponent

If there is an addition, deletion, or change in the members comprising a Respondent, in the key personnel positions of a Respondent or a change of effective control in any Respondent member after an EOI has been submitted, the Respondent must notify the Contact Person in writing, within five working days of any such change. The Province reserves the right to terminate any candidacy of a Respondent if, in its opinion, the change materially negatively affects the ability of the Respondent to carry out the scope of the WTP project.

10.4 Evaluation Process

10.4.1 Evaluation Methodology

The Evaluation Team will evaluate EOIs with the intent to select three Respondents to be invited to the RFP stage. The evaluation of the EOI submissions will be based on the content of the submissions, and any clarifications and/or further information requested, provided in writing in response to questions asked by the Contact Person and from Respondent interviews.

No assumptions should be made that information regarding a Respondent or it's members or experience, expertise and performance on other projects is known to the Province other than the documentation and responses submitted by the Respondent.

The Province will select Respondents who, in its sole and absolute discretion, demonstrate the greatest combination of qualifications, experience, vision and commitment to develop the WTP.

If an EOI is determined to be unclear or deficient in some aspects but these deficiencies are capable of being clarified or remedied, the Contact Person may prepare a list of questions for the Respondent, to provide the Respondent with an opportunity to clarify or remedy its EOI. If these clarifications and amendments do not overcome the deficiencies, the Province may, at its sole and absolute discretion, decide to reject the EOI.

Pass/FailThose criteria stipulating mandatory requirements.
Submissions that do not meet the requirements of any of
these criteria will be subject to disqualification.Rated CriteriaEOI submissions will be awarded points based on their
relative merit using the scoring matrix.

EOIs will be evaluated using two different types of criteria:

10.5 Pass/Fail Criteria

All Submissions will be reviewed on a pass/fail basis from three perspectives:

- Submission Completeness
- Financial Capacity
- Use of Demonstrated Technology

10.5.1 Submission Completeness

The following table summarizes the submission completeness assessment:

SUBMISSION COMPLETENESS REVIEW		
Declaration Letters PASS FAIL		
Financial Submission including:		
 Letter from Financial Institution 		
 Financial References 		
 Evidence to support capacity to invest equity 		
Technical Submission including	PASS	FAIL
 Description of Respondent 		
 Experience and Expertise of Respondent 		
 Project Understanding 		
Use of Demonstrated Technology	PASS	FAIL
 Evidence that the technology has been used in commercial service to treat acidic, metal- contaminated mine water in high volume applications, and has met the requirements for concentrations of dissolved metals and chemical stability of any sludge or by-product (if applicable) listed in Appendix C. 		

10.5.2 Financial Capacity

EOIs must demonstrate that the Respondent has the financial capacity to fulfil its intended role. This will be a pass/fail determination by the Province.

This will be assessed by examining the Respondent's:

Letter from a financial institution

Letter from a recognized financial institution representing that the Respondent or its Prime Members have the financial capacity to undertake a project of this size.

Capacity to invest equity

The Submission must also indicate the ability of the Respondent to demonstrate financial capacity to invest at least CDN \$2 Million of equity capital in the WTP.

FINANCIAL CAPACITY	Pass	Fail
Letter from a recognized Financial Institution	YES	NO
Capacity to Invest Equity	YES	NO

10.6 Rated Criteria

10.6.1 Scoring Matrix

SUBJECT	TOTAL SCORE
a) Proponent Organisation/Structure	20 Points
b) Relevant Demonstrated Experience	30 Points
c) Project Understanding	50 Points

10.6.2 Rated Criteria

10.6.2.1 Proponent Organisation/Structure

EOIs must demonstrate an effective Respondent organisation. Key areas that will be evaluated include:

- roles of Proponent members;
- organisation structure;
- management (including the transition strategy through project phases);
- lines of responsibility and reporting relationships; and
- completeness of all skill sets required.

Submissions should provide a description of the Respondent, including a description of all Respondent members and the proposed legal relationship among Respondent members (e.g. partners, shareholders, consultants) with respect to the project elements.

EOIs should demonstrate the completeness and appropriateness of the Respondent members organizing to create a team capable of successfully completing the WTP. The Respondent should include team members who will be collectively responsible for all areas of the WTP and submissions should describe how the Respondent members plan to co-ordinate their efforts, in order to meet the MSRM's requirements. This section should also specify aspects of the specific roles necessary for the WTP and the experience and qualifications of Respondent members.

The Respondent's understanding of the scope and nature of the WTP will be evaluated with reference to the organization of the Respondent. Submissions should include, but not be limited to:

- corporate make-up and responsibilities of Respondent members, clearly showing the entity that will be ultimately responsible to the Province;
- management structure showing reporting relationships and control, and demonstrating the changing roles of the key personnel during the various phases of the project;

• key personnel, showing the names of individuals holding key managerial positions, and delineating their responsibilities and authorities.

10.6.2.2 Relevant Demonstrated Experience

Submissions should demonstrate a Respondent's clear record of success in the areas of expertise required for this WTP and a record of success on projects of similar nature, size, scope and complexity.

Key areas that will be evaluated include:

- experience and expertise of the Respondent members in the design of facilities to treat acidic mine waters;
- construction of water treatment facilities;
- experience and expertise of key project personnel;
- references from clients (names and telephone numbers) who can substantiate the experience of companies and individuals
- operation and maintenance experience of water treatment facilities; and
- DBFO experience.

Descriptions of previous projects provided in the EOI should include for each project:

- the name of the project;
- scheduled and actual completion date;
- the prime members involved;
- a description of the project in a manner that demonstrates the relevant skills;
- the Respondent members and/or key individuals involved;
- original budget, final cost, and claims settled and outstanding;
- environmental management;
- adherence to environmental regulations;
- communications management and public relations;
- contract type (e.g. traditional procurement, EPCM, DBO, DBFO, etc); and
- an independent client contact Person or organization that can verify the information provided, particularly effluent quality achieved (name, title, organisation, address, phone number and fax number).

10.6.2.3 Project Understanding

The primary project challenge is to deliver satisfactory effluent quality, at the lowest life cycle cost solution, using proven cost effective technology. Submissions must demonstrate a clear and coherent understanding of the challenges to be faced in implementing the WTP.

Key areas that shall be evaluated include:

- Clear and coherent understanding of the challenges associated with the Project;
- cost effective technology, in commercial service, proven to treat similar volumes and quality of mine water resulting in effluent meeting the discharge criteria in Appendix C;
- consistent delivery of water treatment sludge or by-products that passes the BC Special Waste Extraction Procedure (SWEP) test, and would not be considered as a Special Waste in the Province of British Columbia.;
- information related to management and disposal of sludge and/or byproducts;
- the planned schedule for design, construction and commissioning of the WTP;
- quality and aesthetics of proposed WTP created for the Province;
- potential for Hydraulic Capacity of plant; and
- any other relevant factors.

Respondents are encouraged to provide the Province with feedback regarding the proposed term of the contract (e.g. 20 year vs. 30 year operating period). This feedback will not be evaluated as part of your submission.

10.7 Evaluation Summary

The following summary is provided as a convenient checklist and is in no way contradictory to the previous detailed evaluation sections. Proponents should ensure that their submissions address all of these issues:

A REQUEST FOR EXPRESSIONS OF INTEREST A DBFO PROJECT FOR THE BRITANNIA MINE WATER TREATMENT PLANT

Evaluation Criteria	Points Allocation
Submission Completeness and Financial Capacity	Pass/Fail
Proponent Organization and Structure	20 points
Proponent Structure	
- Clear reporting relationships and responsibilities	
 Transition strategy though project phases 	
 Proponent Completeness 	
- All required skills	
 Roles and Responsibilities of Key Managers 	
Demonstrated Experience Evaluation	30 points
Corporate experience	
 Experience and expertise of proposed key personnel 	
Specific Areas of evaluation include:	
 Design, construction and finance of similar mine water treatment facilities 	
 Operation and maintenance of similar mine water treatment facilities 	
 Public-private partnership experience 	
Project Understanding	50 points
 Cost effective technology, in commercial service, proven to treat similar volumes of water producing an effluent quality that meets or improves upon the discharge criteria in Appendix C 	
 Sludge and/or by-products disposal 	
 Proposed design and construction schedule 	
 Clear and coherent understanding of the challenges 	
 Quality and aesthetics of proposed WTP 	
Other issues which are specific to the Submission	

Submissions with the highest number of points will be recommended by the Evaluation Team to proceed into the RFP process.

Upon completing evaluation in accordance with the evaluation criteria, the Evaluation Team will present its evaluation rationale and recommendations for approval by the MSRM.

11.0 Submission Forms

11.1 Schedule A: FORM OF COVER LETTER

PLEASE NOTE: If the Proponent is a group of a number of firms (consortium), a copy of this Cover Letter must be submitted for each Respondent

[Respondent's Letterhead]

Attention: *Britannia Mine Water Treatment Plant* c/o **Sue-Anne Fimrite** Project Consultant Partnerships British Columbia Suite 1250 – 999 West Hastings Street Vancouver, British Columbia V6C 2W2

RE: The Britannia Mine Water Treatment Plant Project

The undersigned (the Respondent), confirms that it has carefully examined the RFEI and, having full knowledge and understanding of the contents of the RFEI, including all addenda, confirms, acknowledges and agrees that:

- (a) it has carefully read, examined and understood the entire RFEI, including any and all addenda issued by you;
- (b) it agrees to all of the terms and conditions of the RFEI including any and all addenda issued by you;
- (c) it agrees to be bound by all commitments, statements and representations made in its EOI;
- (d) it waives any further right to amendment or clarification of any aspect of the RFEI;
- (e) the persons signing on its behalf have full authority to represent the Respondent in any and all matters related to its EOI; and
- (f) it acknowledges that in order to receive the RFP it will be required to execute a confidentiality undertaking; and
- (g) it authorizes you and your advisors to make such enquiries as you deem fit regarding the Respondent's creditworthiness and as to its performance on any project or assignment referenced in the Respondent's Expression of Interest and any reference referred to in such Expression of Interest is authorized to divulge to you any information regarding the Respondent which may be relevant to your assessment of the Respondent in relation to the Britannia Mine Remediation Project.

A REQUEST FOR EXPRESSIONS OF INTEREST A DBFO PROJECT FOR THE BRITANNIA MINE WATER TREATMENT PLANT

INDIVIDUAL

COMPANY

Name of Individual

Signature

Name of Company

Authorized Signature of Company

Witness

Witness

11.2 Schedule B: Expression of Interest Form

GENERAL CONTACT INFORMATION

Name Of Respondent

COMPANY/FIRM INFORMATION

RESPONDENT'S CONTACT PERSON

Legal Name (incorporation/registration name)

Type of Entity (type of corporation, partnership, etc) Name

Company or Firm

Jurisdiction of Incorporation / Registration

Address

Telephone

Fax Number

Email Address

Registered Address

Primary Business (e.g. engineering, construction, finance, operations, legal, etc)

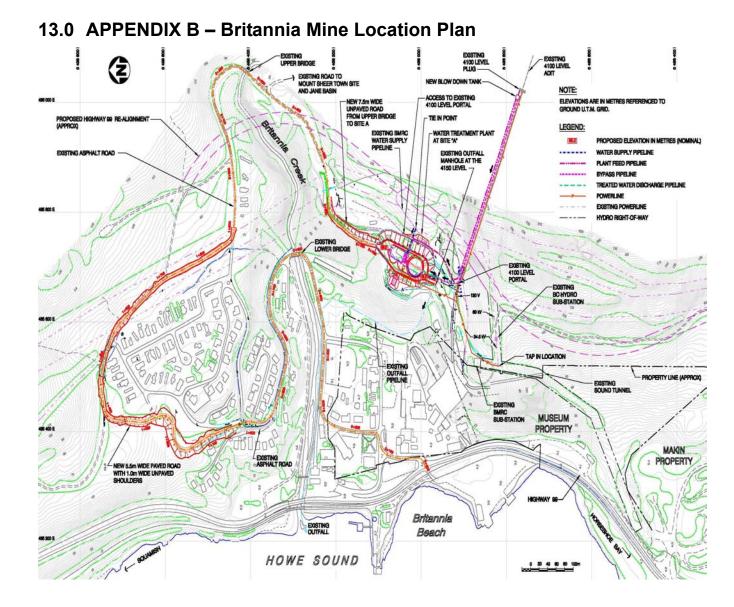
12.0 Appendix A – Definitions

For the purposes of this RFEI, the expressions set forth below have the following meanings:

"Abnormal Circumstances"	 generally means circumstances of a significant nature and for periods of time sufficiently long to disrupt the treatment process of mine water, which are beyond the control of the operator, for which no provision is made in the annual operating budget (including the Maintenance Fund) for the facilities and which impair the service provided by the facilities including, without limitation: the presence of abnormal or toxic substances in the untreated mine water which exceeds the design treatment parameters of the WTP; effluent characteristics exceeding the design parameters of the Mine Water Collection, and WTP; Force Majuere damage to the facilities caused by the Province, its servants, agents, employees or contractors (excluding the operator). 	
"Agreement"	means the legal document or documents setting forth the rights and obligations between the Proponent who is successful in the proposal call process, and Her Majesty The Queen in Right of the Province of British Columbia as represented by the Minister of Sustainable Resource Management for the design, construction, finance, operation, and maintenance of the WTP.	
"Average Monthly Values"	means the simple arithmetic average values determined from 24-hour flow proportioned composite samples for all parameters.	
"Concessionaire"	Successful private sector consortia that executes the Agreement	
"Contact Person"	contact information provided under Section 8.1	
"Contractual Service Requirements"	means the requirements to be specified in the Agreement including, but not limited to, all permits, licenses, and directions of authorities having jurisdiction. The effluent limits may be more stringent than those permitted in the discharge permit.	
"EOI"	means an expression of interest made in response to this RFEI.	
"Evaluation Team"	means the Ministry of Sustainable Resource Management personnel, community representatives and consultants chosen to evaluate the <i>EOI</i> 's.	

- **"HAZOP"** a structured hazard and operability study for evaluation of a complex process for the purpose of finding problems associated with the operability and safety of the process.
- "Hydraulic Capacity" means the maximum volume of water that can physically flow through the WTP without overflows, spillage, or damage to the WTP.
- "Maintenance Fund" refers to the fund established and funded by the Concessionaire, which will be used to ensure that the WTP will be maintained throughout the Operating Period and transferred to the Province in good order at the end of the Operating Period.
- "Operational Acceptance" means the acceptance by the MSRM that the WTP has operated for 12 consecutive months, in addition to the 24 month period of planning and construction, whereby meeting all Average Monthly Values for effluent quality.
- "Operating Agreement" Legal Agreement relating to the operations and maintenance of the WTP. The term of the Operating Agreement will be equal to the Operational Period.
- "Operating Period" means the operating period, which will initially be set at 20-years. The Operating Period is subject to change and will be confirmed in the RFP process.
- "Outfall" means the system, equipment and location at which treated effluent from the WTP is discharged in an environmentally acceptable manner into the ocean;
- "Person" means an individual, corporation or other body corporate, partnership, joint venture, association, foundation, society, trust or unincorporated organization and any trustee or legal representative thereof.
- "Preferred Proponent" means any entity, including the company, firm, consortium of any legal entity selected during the RFP process to negotiation the Operating Agreement.
- "Project Team" means, the Ministry of Sustainable Resource Management personnel, community representatives and consultants involved in the Britannia Mine Water Treatment Plant Project.
- "Proponent" means any entity, including a company, firm, consortium or any legal entity, which has been invited to the RFP stage.
- **"Respondent"** Means any entity, including a company, firm, consortium of any legal entity, which returned a Cover Letter (Section 11.1 Schedule A) to the Contact Person, and plant to submit an EOI in response to this RFEI.
- "Respondent's Contact Are those Persons identified by the Respondent as per

Person"	the Expression of Interest Form (Section 11.2 – Schedule B)
"Restricted Parties"	Those Persons (including their former and current employees) who (a) had, or currently have, direct participation or involvement in the Selection Process, or (b) in the planning or implementation of the Water Treatment Plant project beyond the feasibility level studies, or (c) have specialized knowledge related to the mine water reservoir or outfall, and who may therefore provide a material unfair advantage or confidential information that is not, or would not reasonably be expected to be, available to other Proponents.
"RFEI"	means this Request for Expressions of Interest for the Project issued by PBC on behalf of the MSRM;
"RFP"	means the Request for Proposals that is, the documentation issued by Partnerships BC on behalf of the MSRM requesting the submission of proposals and detailing the project requirements;
"Selection Process"	means the process pursuant to which the Province solicits EOIs, develops a short list of Proponents to whom the Province will submit the RFP and selects the Proponent with whom the Province will enter into the Agreement for the WTP.
"Special Waste"	as defined in the Special Waste Regulation under the Waste Management Act
"Submission Time"	The Submission Time is no later than 2:00:00 pm Pacific Standard Time on March 5, 2004.
"Substantial Completion"	will be deemed to have occurred when the WTP has been in full use, meeting the required effluent quality for a period of 90 consecutive days, and free of any deficiencies affecting the safety of operations or workers;
"Project"	means the structures and equipment to be built according to the project agreement, including all of the collection system, works, plant, outfall/effluent disposal, and equipment used in connection with the collection and treatment of surface and groundwater run off from the mine workings of the Britannia Mine and water and sludge treatment and handling together with all accretions, replacements and modifications made thereto from time to time. The Project includes the design, construction, finance, and operation of the Britannia Mine WTP.



REQUEST FOR EXPRESSIONS OF INTEREST

14.0 Appendix C – Discharge Criteria

14.1 Effluent Discharge to Howe Sound

Proposed Requirements for WMA Discharge Permit

The minimum requirements for all treated water discharged from the WTP to receiving waters of Howe Sound are:

<u>Parameter</u>	<u>Limit</u>
dissolved copper	≤ 0.1 mg/L,
dissolved iron	≤ 0.1 mg/L,
dissolved zinc	≤ 0.2 mg/L,
dissolved aluminium	≤ 1 mg/L,
dissolved manganese	≤ 0.4 mg/L,
dissolved cadmium	≤ 0.01 mg/L,
total suspended solids	≤ 30 mg/L,
pH range	6.5 to 9.5, and
96HRLC50 fish bioassay	100% survival (non-acutely toxic)

These requirements, which are not to be exceeded, are based upon the levels proposed in *Waste Management Act* discharge permit application PE-17469. The point of measurement will be at the discharge from the WTP into the pipe leading to the Outfall in Howe Sound, before the introduction of untreated mine water from controlled bypass events. The MWALP is considering the application and will determine the final conditions including discharge levels for the permit.

14.2 Design Discharge Criteria

The above parameters are the upper limits of a permissible discharge, and are not allowable average values. The MSRM has established the following as the Average Monthly Values that it expects the WTP to be able to meet on a monthly basis when the volume of water treated is less than or equal to the design capacity.

<u>Parameter</u>	<u>Limit</u>
dissolved copper	≤ 0.02 mg/L,
dissolved iron	≤ 0.01 mg/L,
dissolved zinc	≤ 0.03 mg/L,
dissolved aluminium	≤ 0.5 mg/L,
dissolved manganese	≤ 0.2 mg/L,
dissolved cadmium	≤ 0.001 mg/L,
total suspended solids	≤ 10 mg/L,
pH range	6.5 to 9.5, and
96HRLC50 fish bioassay	100% survival (non-acutely toxic)

14.3 Discharge of Sludge or WTP By-products

As a general principle, the MSRM wishes to encourage reuse or recycling of any WTP by-products. For example, initial enquiries have indicated that an HDS sludge may be suitable for use in cement manufacturing. By-products from other technologies may be saleable for other purposes. Respondents are advised that this is a principle only and does not form a part of the evaluation criteria for the RFEI. The Province may include this principle as an evaluation criterion in the RFP.

The MSRM requires that any material that is destined to a landfill or similar impoundment facility must be able to pass the BC Special Waste Extraction Procedure (SWEP).

15.0 Appendix D – Predictions of Mine Water Chemistry

Mine water chemistry at Britannia Mine has been monitored for many years. However, these data represent the chemistry of water flowing through the mine workings in an unimpeded manner, and do not necessarily reflect the effects of storage. The effect of storage was assessed through a "plug test" conducted in 2002, and has been reported by SRK Consulting. The following tables, modified from the SRK report, present a summary of the projected variations. The information is provided solely to acquaint the Proponents with the range of water chemistry parameters that may be expected during operation of the plant. The Proponents must refer to the complete reports for background and qualifications on these figures. Neither the MSRM, nor its agents or consultants are liable for any interpretations or conclusions drawn from this information.

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BRITANNIA MINE REMEDIATION

GEOCHEMISTRY AND WATER QUALITY OF THE MINE WORKINGS

Water Type or Mixture	рН	Total Acidity	Sulphat e	Са	Mg	Al	Cd	Cu	Fe	Zn
	s.u.	mgCaCO₃/ L	mg/L	mg/L	mg/L	mg/L	Mg/L	mg/L	mg/L	mg/L
Average Water Chemistry Prior to 2002 Plug Test	3.6	294	1427	334	65	30	0.11	27	11	23
Sample Collected Two Months After the 2002 Plug Test	3.4	338	1830	391	99	41	0.13	30	7.1	24

Table 1 (Modified from Table 4.5)

Expected Concentrations in the 4100 Drainage During Flow-Through Conditions

Notes: *Weighted average of the historical 2200 and 4100 data.

Statistical Summary of Water Chemistry During the 2002 Flug Tests											
	pН	Total Acidity	Sulphat e	Са	Mg	AI	Cd	Cu	Fe	Mn	Zn
	s.u.	mgCaCO₃/ L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Averages											
Time Weighted	3.36	451	1889	401	116	52	0.116	38	33	8.1	24
Volume Weighted	3.36	415	1859	403	114	49	0.115	40	22	8.0	24
Statistics											
Standard Deviation	0.19	216	343	42	33	16	0.012	11	36	2.7	2.2
Median	3.30	473	1970	400	110	52	0.114	38	16	7.9	24
10 th Percentile	3.20	195	1454	351	70	26	0.103	25	2.6	4.6	22
90 th Percentile	3.70	686	2320	458	165	73	0.126	55	63	12	27
Maximum	3.90	1240	2780	496	193	91	0.163	66	206	14	29

TABLE 2 (Modified From Table 4.6)Statistical Summary of Water Chemistry During the 2002 Plug Tests

TABLE 3 (Modified from Table 4.8)

Predicted Average Annual Concentrations in Mine Drainage during Dry, Typical and Wet Years Assuming Various Storage Scenarios

Event	pН	Total Acidity	Sulphate	Са	Mg	AI	Cd	Cu	Fe	Zn
	s.u.	mgCaCO₃/ L	mg/L	mg/L	mg/L	mg/L	Mg/L	mg/L	mg/L	mg/L
Wet	3.4	380	1763	387	102	44	0.12	36	18	24
Typical	3.5	346	1659	370	89	39	0.12	32	14	24
Dry	3.6	302	1456	339	68	31	0.11	28	12	23

16.0 Appendix E – Preliminary Assessment of Required Permits

The following is a preliminary list and status of the required permits. More detail will be available in the RFP:

Type of authorization	Decision maker	lssue	Responsible Party	Status	Estimated time to obtain
Permit	MEM	Mines Act permit for mine storage of ARD	SRM application	SRM to initiate in 1Q2004.	90 days
Effluent Discharge Permit	MWLAP	WMA effluent discharge permit for WTP	SRM application	Application submitted June 2003	prior to RFP
Outfall Permit	DFO	New outfall requires Navigable Waters Protection Act permit	SRM application	SRM to initiate in 1Q2004.	60 days
Outfall Approval	LWBC	Outfall requires License of Occupation.	SRM application	SRM to initiate in 1Q2004.	60 days
Outfall Approval	DFO	Effects of outfall on marine habitat.	SRM application	SRM to initiate in 1Q2004 if required by DFO	90 days
Outfall Approval	DFO/EC	Requirement for CEAA	SRM	SRM to consult DFO/EC	Undetermined
Construction Permit	МЕМ	Demolition and construction activities associated with WTP plant and upland portion of outfall will require conformance with the Mines Act.	Contractor application	MEM has confirmed jurisdiction on mine site with respect to demolition and construction. Selected Proponent must submit designs for review.	60 days
Agreement	Land Owners	South outfall site requires access through private lands	SRM application	SRM to initiate in 1Q2004.	60 days
Agreement or Approval	BCR	Outfall line crosses BCR right of way.	SRM application	SRM to discuss and define issues in 1Q2004. Selected Proponent to be responsible for implementation.	60 days
Agreement or Approval	МоТ	Outfall line crosses Highway 99.	SRM application	SRM to discuss and define issues in 1Q2004. Selected Proponent to be responsible	60 days

Type of authorization	Decision maker	lssue	Responsible Party	Status	Estimated time to obtain
				for implementation.	
Agreement or Approval	BCHydro	Authorization to encroach on BC Hydro right of way for interim sludge storage.	SRM application	SRM to discuss and define issues in 1Q2004. Selected Proponent to be responsible for implementation.	60 days
Permit	MWLAP	WMA refuse permit for the discharge of WTP sludge	Contractor application	Need depends on Proponents solid waste disposal strategy.	200 days