

August 30, 2012

Mackenzie Valley Environmental Impact Review Board  
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*Via email: aehrlich@reviewboard.ca*

Attention: Alan Ehrlich  
A/ Executive Director, Mackenzie Valley Review Board

**Re: Response to Alternatives North submission, “*Questions for the Federal Contaminated Sites Action Plan and Treasury Board Secretariat on Perpetual Care*” related to the Giant Mine Remediation Project.**

The following is in response to questions submitted by Alternatives North to Environment Canada, as the Secretariat for the Federal Contaminated Sites Action Plan, (FCSAP) on August 3, 2012, related to the Environmental Assessment for the Giant Mine Remediation Project, EA0809-001 (Mackenzie Valley Review Board Public Registry #490). The Treasury Board Secretariat has been consulted in the preparation of this response.

**1. Please provide any definitions of long-term care and maintenance or perpetual care as developed and applied by the FCSAP and/or Treasury Board Secretariats**

The Federal Contaminated Sites Action Plan (FCSAP) Secretariat and the Treasury Board of Canada Secretariat (TBS) do not have definitions for “long-term care and maintenance” or “perpetual care” per se. However, we use the terms “care and maintenance” and “long term monitoring” in the context of providing guidance to custodial departments on eligible expenses under the FCSAP program.

Prior to remediation work on a contaminated site, care and maintenance activities may be undertaken at abandoned or idled mining properties to maintain the structures and infrastructure on-site when they pose danger to human health and/or the environment. This expense would be eligible under the FCSAP program.

After remediation, long term monitoring may be required to ensure the success of the controls used in the remediation or risk management strategy. For example, long term monitoring may be required to ensure contaminants do not migrate in cases where waste or contaminants are managed in place. As with care and maintenance activities, long-term monitoring activities would vary from site to site. Long term monitoring is eligible under the FCSAP program if it is included as a component of the Remedial Action Plan

and should be for a specific and scientifically supported length of time once risk management work is completed.

**2. Please indicate what proportion and number of remediated federal contaminated sites require long-term care and maintenance or perpetual care, including the need for regular inspections of engineered structures, water treatment, freeze systems, and maintenance of fencing or berms.**

The Federal Contaminated Sites Inventory (FCSI) (<http://www.tbs-sct.gc.ca/fcsi-rscf/home-accueil-eng.aspx>), managed by the Treasury Board Secretariat, includes a listing of all actual or suspected federal contaminated sites, and identifies sites that are funded by the Federal Contaminated Sites Action Plan. Federal departments use a 10-step process for managing federal contaminated sites, with steps 1-6 covering the assessment phase, steps 7 – 9 covering the risk management or remediation phase, and step 10 representing long term monitoring, if required. Not all sites will proceed through all 10 steps and can be closed, for example, when no further action is required after the completion of assessment activities.

There are currently 6,327 active, 4,929 suspected, and 10,998 closed sites in the Federal Contaminated Sites Inventory. Of the active sites, it is estimated that just over 500 are undergoing long term monitoring. This estimate is based on the number of sites that have completed confirmatory sampling and final reporting (step 9), and continue to spend money to undertake long term monitoring at the sites (step 10). We do not have information about the specific long term monitoring activities underway at these sites, as the responsibility for managing contaminated sites rests with custodial departments. In any event, long term monitoring activities at any of these 500 sites varies from site to site. It should be noted that the Giant Mine Remediation Team at AANDC has already considered lessons learned for perpetual care and presented them to the Mackenzie Valley Review Board in the Round Two Information Request response, “*Lessons Learned from Perpetual Care Case Studies and the Relevance to the Giant Mine Project*” which can be viewed using the following link:

- [http://www.reviewboard.ca/upload/project\\_document/EA0809-001\\_Rnd\\_2\\_Responses\\_to\\_Board\\_IRs\\_1329766238.PDF](http://www.reviewboard.ca/upload/project_document/EA0809-001_Rnd_2_Responses_to_Board_IRs_1329766238.PDF)

**3. Please describe the legal and policy framework in place to plan for and manage federal contaminated sites that require long-term care and maintenance or perpetual care.**

There are no legal requirements that specifically apply to the long term care and maintenance of federal contaminated sites. Several federal statutes may apply to contaminated sites management on a site specific basis, such as Section 36.3 of the *Fisheries Act*, various regulations under the *Canadian Environmental Protection Act*, the *Migratory Birds Convention Act* and the *Species at Risk Act*. For example, under Section 36(3) of the *Fisheries Act*, the deposit of deleterious substances into water is prohibited

so this act may be relevant to sites with aquatic components. Similarly, the PCB Regulations (2008) might apply at a site with PCB-amended paints, and the Federal Halocarbon Regulations (2003) may apply at a site with discarded cooling equipment.

The *Treasury Board Policy on the Management of Real Property* (2006) (<http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=12042>) provides the overall policy framework for management of federal contaminated sites. The policies do not include specific requirements related to long term monitoring. The policy instructs federal departments, through their Deputy Heads, to ensure that:

6.1.11 Real property is managed in an environmentally responsible manner consistent with the principles of sustainable development...

6.1.12 Known and suspected contaminated sites are assessed and classified and risk management principles are applied to determine the most appropriate and cost-effective course of action for each site. Priority must be given to sites posing the highest human health and ecological risks. Management activities (including remediation) must be undertaken to the extent required for current or intended federal use. These activities must be guided by standards endorsed by the Canadian Council of Ministers of the Environment (CCME) or similar standards or requirements that may be applicable abroad...

6.1.13 The contamination of real property or negative impacts on the environment through the use or permitted third-party use of real property is avoided. In the event of contamination, immediate and reasonable action must be taken to protect the health and safety of persons and the environment, prior to assessing a future course of action.

In order to meet the requirements of these policies, long term monitoring may be required on a case-by-case basis. The CCME *Guidance Document on the Management of Contaminated Sites in Canada* (1997) recommends long term monitoring whenever containment, isolation and *in situ* stabilization techniques are applied ([http://www.ccme.ca/ourwork/soil.html?category\\_id=68](http://www.ccme.ca/ourwork/soil.html?category_id=68)).

**4. Please describe the lessons learned and best practices for the following aspects of perpetual care for remediated federal sites, including any consideration of examples from nuclear waste management:**

- records management and preservation;
- site designation and land use controls;
- long-term funding;
- communicating with future generations (including site markers, monuments or symbols left at the site);
- scenario building;
- transition planning;
- community involvement;



- **examples of or guidance for actual long-term care and maintenance plans.**

Since the FCSAP program is a 15-year program with a specific end date (2020), it is not intended to support perpetual care of contaminated sites. The Giant Mine Remediation Team at AANDC has considered lessons learned for perpetual care and presented them to the Mackenzie Valley Review Board in the Round Two Information Request response, "*Lessons Learned from Perpetual Care Case Studies and the Relevance to the Giant Mine Project*" which can be viewed using the following link:

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**5. Please describe how the FCSAP Secretariat and the Treasury Board Secretariat reviews proposals or plans for the remediation of federal contaminated sites that require perpetual care.**

The FCSAP Secretariat, with support from the Treasury Board Secretariat, provides program oversight and administration. Technical support is provided by three expert support departments (Health Canada, Fisheries and Oceans Canada and Environment Canada) that review risk profiles for contaminated sites using the CCME *National Classification System for Contaminated Sites* (2008). The risk profile determines whether the contaminated site is eligible for remediation funding under the FCSAP program.

The expert support departments work collaboratively to review documents pertaining to contaminated sites management on a case-by-case basis, such as Remedial Action Plans, Human Health and Ecological Risk Assessments, Risk Management Plans, and Long Term Monitoring Plans at the request of the department responsible for the project. When a department managing a project requests that expert support departments review the remediation plans for a federal contaminated site, they would comment on aspects of contaminated sites management such as contaminant delineation, fate and transport of contaminants, human health and ecological risks, receptor characteristics, guideline selection and application, remedial objectives, and remediation technology selection, optimization, and long term monitoring.

**6. Please describe details of how the perpetual care aspects of the Giant Mine Remediation Project have been reviewed and assessed under FCSAP.**

As a party to the Environmental Assessment, Environment Canada has reviewed and provided comments on the Developer's Assessment Report (MVRB Public Registry 461); which can be viewed using the following link:

- [http://www.reviewboard.ca/upload/project\\_document/EA0809-001\\_Environment\\_Canada\\_Technical\\_Report.PDF](http://www.reviewboard.ca/upload/project_document/EA0809-001_Environment_Canada_Technical_Report.PDF).

Environment Canada's comments were formulated with input from its expert support staff dedicated to FCSAP. Environment Canada did not identify any concerns related to the long term monitoring approach that was outlined in the Developer's Assessment Report. An Environment Canada FCSAP Expert Support representative is also a member of the Environmental Management System Working Group for the Giant Mine Remediation Project. This ongoing working group, of which Alternatives North is a member, is establishing refined targets for long term monitoring as remediation proceeds.

**7. Please provide details on whether the lessons learned from other perpetual care sites have been applied to the Giant Mine Remediation Project by the FCSAP and Treasury Board Secretariats.**

This level of site management decision making rests with the custodial department and therefore this question should be directed to Aboriginal Affairs and Northern Development Canada.

The Giant Mine remains one of the highest priority contaminated sites for remediation under the Federal Contaminated Sites Action Plan program.

Sincerely,



by/ Gwen Goodier  
Director Compliance Promotion and Contaminated Sites  
Environment Canada

*Cc: Shirley Jen, Senior Director, Real Property and Materiel Policy Division,  
Treasury Board of Canada Secretariat  
Joanna Ankersmit, Director, Contaminated Sites Program,  
Aboriginal Affairs and Northern Development Canada*