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# Giant Mine Remediation Project

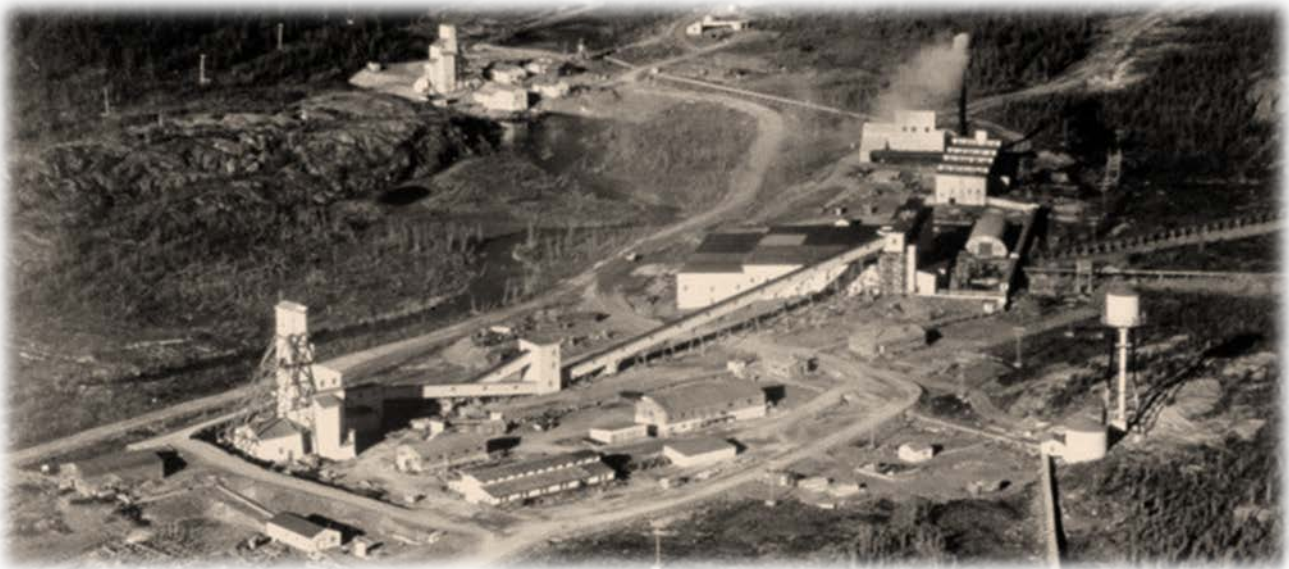
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Report On Long-term  
Funding Options

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May 2017

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# INTRODUCTION

## **A Brief History of Giant Mine**

The Giant Mine is an abandoned gold mine covering approximately 900 hectares within the city limits of Yellowknife, Northwest Territories. The site operated continuously from 1948 to 1999, when the mine operator went bankrupt and Indigenous and Northern Affairs Canada (INAC) assumed responsibility for the site. Both underground and open pit mining were used to extract gold ore. The underground workings extend approximately five kilometres north from the original “A” shaft located near the Giant Mine townsite at the southern margin of the property. The underground mine is 610 metres deep, with numerous openings to the surface from underground. There are eight surface pits from which ore was mined. Ore extraction continued for processing at nearby Con Mine until 2004, after which all operations at the site ceased, and remediation of the contamination resulting from the operation of the mine became the focus.

The overall objectives of the Giant Mine Remediation Project are to minimize health and safety and environmental risks due to the presence of contamination at the site. The main contamination issue is the 237,000 tonnes of arsenic trioxide dust stored underground, and the risk it poses in entering the surrounding environment, including the nearby Great Slave Lake. Other risks include: contaminated surface, soils and infrastructure; tailings ponds; open pits and openings to the underground mine; and deteriorating infrastructure. The Project team is currently undertaking the work required to develop the remediation plan for the site. Ongoing care and maintenance, risk mitigation activities and monitoring are also being conducted to minimize or address human and environmental health and safety risks. The Government of the Northwest Territories has administration and control of the lands making up the Giant Mine site, and is a co-proponent in the Giant Mine Remediation Project.

In April 2008, an environmental assessment of the proposed remediation plan was initiated and the approval process was put on hold until the environmental assessment was completed. The process concluded in August 2014 when the final Report of Environmental Assessment was approved by Responsible Ministers (Indigenous and Northern Affairs, Environment Canada, Fisheries and Oceans, and the Government of the Northwest Territories). The Report included 26 Measures, additional requirements for the Project team to incorporate into the project scope.

Measure 6 requires the project to investigate long-term funding options for the ongoing maintenance of this Project and for contingencies, including a trust fund with multi-year up front funding, involve stakeholders and the public in discussions on funding options, and make public a detailed report within three years that describes its consideration of funding options, providing stakeholders with the opportunity to comment on the report. This report represents the considerations of funding options and is being made available to the public to foster discussions about funding the project on an ongoing basis.

DRAFT

## **How The Project Is Currently Funded**

The Giant Mine Remediation Project has been funded through the Federal Contaminated Sites Action Plan (FCSAP) since 2005. It is a 15-year, \$4.54 billion program established by the Government of Canada, and administered jointly by the Treasury Board Secretariat and Environment Canada. The Giant Mine Remediation Project is one of many remediation projects in Canada being funded through this program. The FCSAP program will sunset in 2020. In light of this, and as required by the Environmental Assessment described above, the Giant Mine Remediation Project team is identifying long-term funding options for the remediation phase of the Project, as well as for the long-term maintenance and monitoring of the site that will be required once active remediation has been completed.

## **How This Report is Structured**

This report is presented in two parts. The first part describes the government supply process, which is how funding is provided (supplied) to federal government departments to meet their program requirements, to support commitments the government has made in the budget approved by Parliament. The second part describes the different options available to departments to access public funding, and obtain the authority to spend public funds on specific activities, as well as options for public-private partnerships.

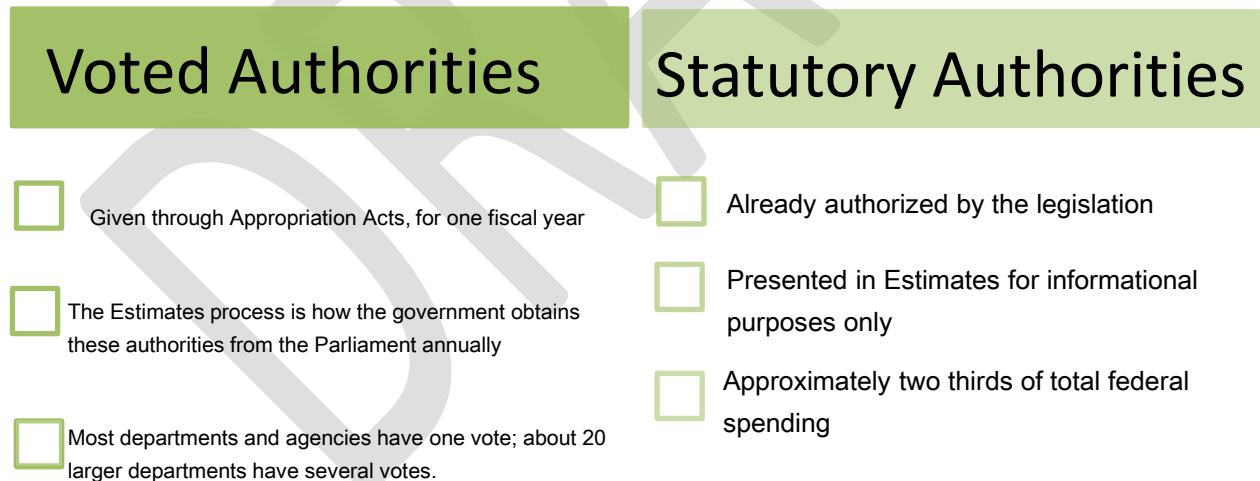
# Part 1: THE SUPPLY PROCESS

The supply process is the steps which departments have to take to obtain funds that are required for any financial obligations to implement programs. Departments can only spend money for purposes authorized by Parliament. This section of the report will be looking at what the supply process is, what the different components are, and how it all fits together.

## Authorities

Expenditure authority from Parliament is provided in two ways: annual Appropriation Acts, or Supply Bills, that specify the amounts and broad purposes for which funds can be spent; and other specific statutes that authorize payments and set out the amounts and time periods for those payments. The amounts approved in Appropriation Acts are referred to as voted amounts, and the expenditure authorities provided through other statutes are called statutory authorities. Each authority has different aspects to it, as shown in Figure 1.

Figure 1: Statutory Versus Voted Authorities



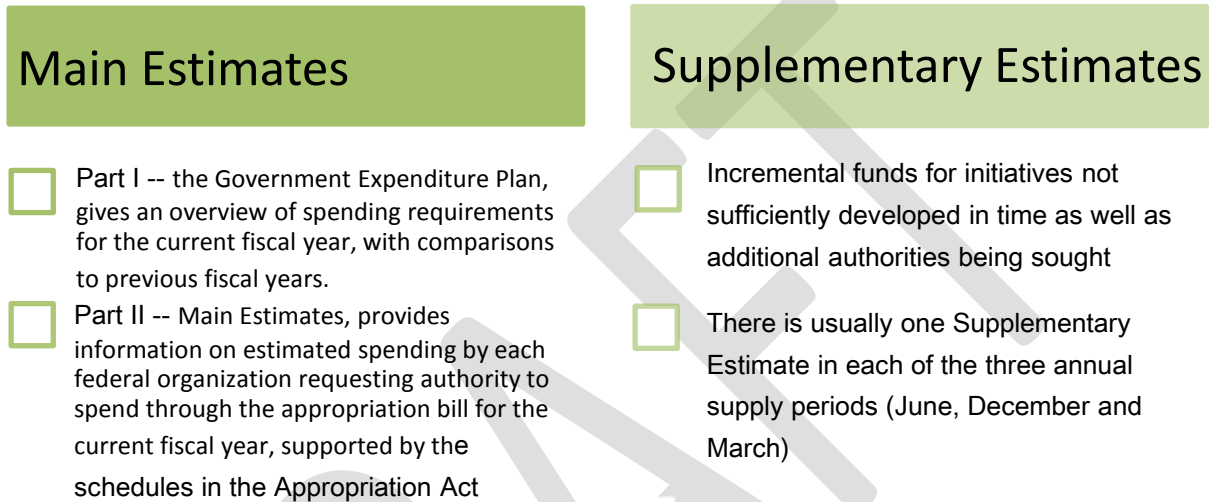
## Estimates

An estimate is a document prepared by the Treasury Board Secretariat from information provided by departments in support of the government's request to Parliament for authority to

spend public funds. It identifies the spending authorities and amounts that need to be included in the appropriation bills. Estimates provide information about the resources required to deliver programs to Canadians.

Figure 2 outlines the two kinds of estimates that happen throughout the fiscal year.

**Figure 2: Main Versus Supplementary Estimates**



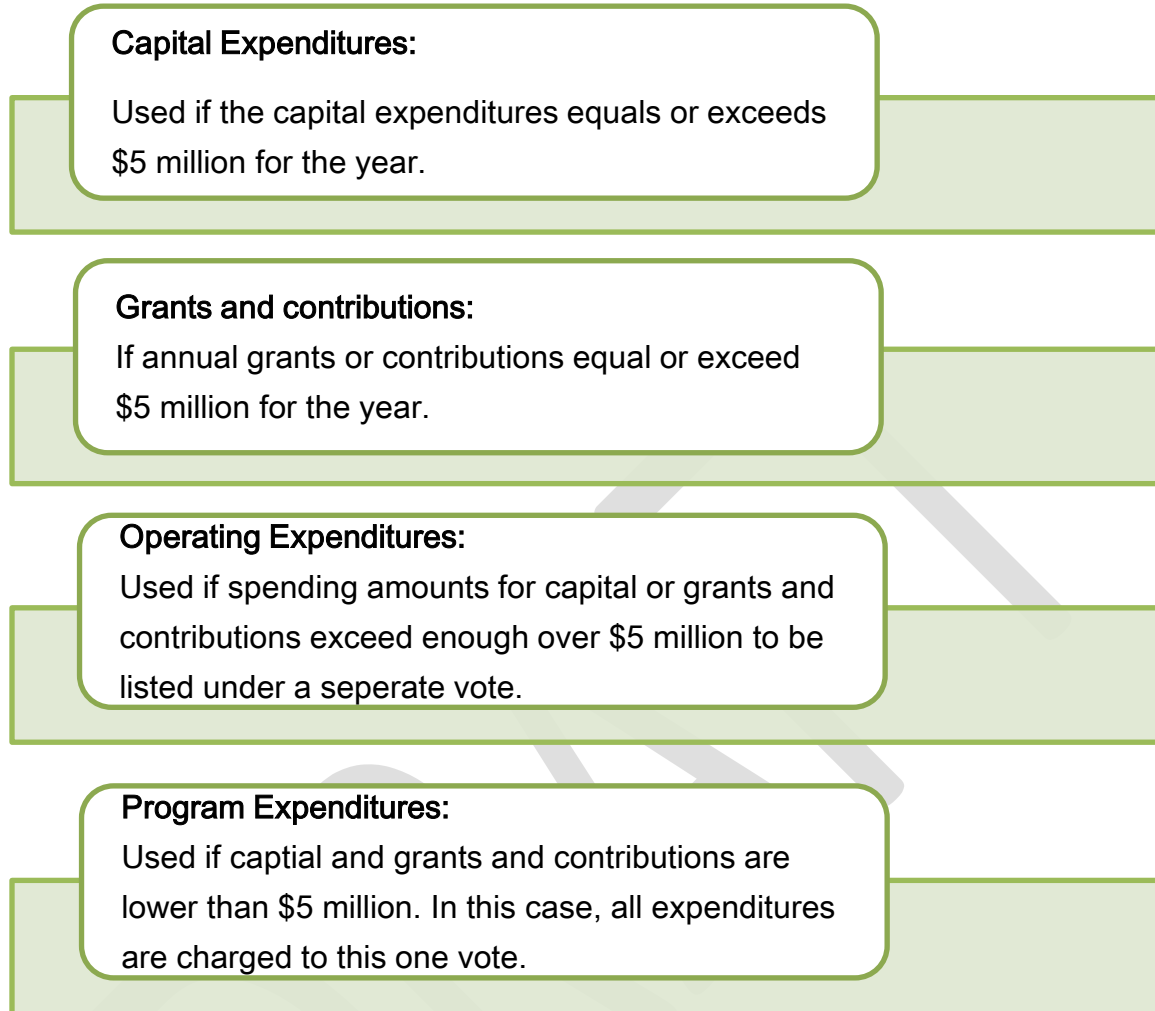
Every February, near the end of the fiscal year, Main Estimates' lay out planned-spending for the upcoming fiscal year, however they can only include decisions that were approved by the House of Commons prior to December. Supplementary Estimates is another way to obtain funds for initiatives that were not sufficiently developed in time for the Budget. The Budget is tabled every year in Parliament during the month of February or March, which coincides with when the Main Estimates are approved. Even though the government's spending plans are set out in the Budget, they are not generally reflected within the Main Estimates.

## Votes

A vote is an individual item in the Estimates indicating the amount of funds required by the government for a particular activity or program. The four most common types of votes are detailed in Figure 3.



Figure 3: The Four Most Common Votes



## Parliamentary Reporting and Supply Cycle

Figure 4 shows the basic cycle that the government goes through every fiscal year (April 1 to March 31) in order to get authority for funds to use on projects and programs.

Figure 4: Parliamentary Reporting and Supply Cycle



## Summary

The funding that is currently provided to the Giant Mine Remediation Project follows the annual appropriation process, through the approval of the Federal Contaminated Sites Action Plan (FCSAP) program. The next part of the document looks at what options are available when seeking the authorities described in Part 1.

## Part 2: LONG-TERM FUNDING OPTIONS

### Criteria for Funding Options

There are several different criteria to consider when determining what funding approach is most suitable for a specific need. These are described in Table 1 below.

Table 1: Evaluation Criteria for Giant Mine post-2020 Funding

Evaluation Criteria	Description
Multi-year	An overall amount of approved funding, without a defined period of time, which is drawn down annually (similar to a line of credit).
Stable	Funding is committed for at least five years to protect against swings in the economy and shifts in policy.
Flexibility	Allows for a portfolio management approach (i.e. the ability to lapse, re-profile, or re-allocate funds outside of an annual budget cycle), which will assist in managing uncertainties during project implementation.
Life cycle	Funding is allocated for the full life cycle of site.
Managing and Reporting Efficiency	Optimize the resources required to seek, manage and report on funding.
Contingency	Process for allocating funding in the event of emergency or other unforeseen circumstance.
Flexible eligibility criteria	Ability to increase scope of remediation when needed.
Stakeholder / Third-party expert involvement	Local stakeholder involvement in funding process and associated decisions.

### Funding Options

#### Federal Contaminated Sites Action Plan

As mentioned above, FCSAP is the funding method currently being used by INAC for the Giant Mine Remediation Project. It is an example of a Fixed Multi-Year Program or Government

funding through appropriations. The plan was implemented in 2005, and will be ending in 2020. FCSAP’s main initiative was to assess and remediate contaminated sites across Canada. It has been successful with smaller / less contaminated sites, but is not the best funding option for mega projects such as Giant because of the mine’s long-term maintenance needs.

Table 2 compares the pros and cons of continuing to use FCSAP.

**Table 2: Pros and Cons to FCSAP**

PROS	CONS
<ul style="list-style-type: none"> <li>• <u>Stable funding</u>: if FCSAP is continued past 2020.</li> <li>• No need to create separate submission to seek approval; information will be provided to others to seek approval.</li> <li>• Good understanding of program administration and requirements.</li> </ul>	<ul style="list-style-type: none"> <li>• <u>Multi-year funding</u>: lack of it makes planning and procurement difficult. Commitments cannot be made in case priorities shift from year to year.</li> <li>• <u>Flexible eligibility criteria</u>: difficult to adjust to changing circumstances.</li> <li>• <u>Contingency</u>: difficult to risk-manage funds</li> <li>• <u>Managing and Reporting efficiency</u>: large reporting requirements pose an administrative burden and potential delays.</li> <li>• <u>Life cycle</u>: funding not guaranteed for the life-cycle of a specific site due to fixed program duration.</li> <li>• <u>Flexibility of expenditures</u>: lack of flexibility due to other sites competing for funds.</li> <li>• Misalignment between federal budget cycle and cycle of contaminated site assessments.</li> </ul>

## Fixed Multi-Year Program

A Fixed Multi-Year Program is presented in the form of a Cabinet submission by one or more department(s) with a defined beginning and end, organized by phases. The funds are accessed by the department(s) through an annual budget appropriation and the program can be renewed or have additional phases that extend the end date if needed. FCSAP is a good example of a Fixed Multi-Year Program, but a new option could be redesigned based on lessons learned from the FCSAP experience to minimize the challenges identified in Table 2.

**Table 3: Pros and Cons of Fixed Multi-year Program**

PROS	CONS
<ul style="list-style-type: none"> <li>• <u>Stable funding</u>: funding phases are associated with fixed time-periods that cannot be altered by external influences such as a change in government.</li> <li>• It can be designed to minimize challenges brought on by FCSAP. The following can be implemented if needed:               <ul style="list-style-type: none"> <li>○ Multi-year funding</li> <li>○ Flexibility of expenditures</li> <li>○ Managing and Reporting efficiency</li> <li>○ Flexible eligibility criteria</li> <li>○ Contingency</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <u>Life cycle</u>: there may not be funds available should the project duration change.</li> </ul>

## Rolling Multi-Year Program

A Rolling Multi-Year Program is a program fund in the form of a Cabinet submission by one or more department(s) that has a defined beginning but no end date. The work is reviewed and assessed at regular intervals, typically the end of pre-defined phases, to direct and approve of any changes being considered. The authority to spend funding on a specific phase would be granted before the next phase started, and could include conditions based on performance during the previous phase.

**Table 4: Pros and Cons of Rolling Multi-year Program**

PROS	CONS
<ul style="list-style-type: none"> <li>• <u>Stable funding</u>: funding phases are on a fixed time-period and cannot be altered by external influences (e.g. Government change).</li> <li>• <u>Life cycle</u>: funding for the perpetual care of Giant Mine can be made available.</li> <li>• Can be designed to minimize challenges like the ones encountered in FCSAP. The following can be implemented if needed:               <ul style="list-style-type: none"> <li>○ Multi-year funding</li> <li>○ Flexibility of expenditures</li> <li>○ Managing and Reporting efficiency</li> <li>○ Flexible eligibility criteria</li> <li>○ Contingency</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <u>Stakeholder / Third-party expert involvement</u>: more time will be required to engage with central agencies to discuss and define program funding details.</li> <li>• Possible pushback from other government departments with remaining liabilities that will be left out.</li> <li>• Alignment needs to be planned or coordinated between planned activities, funding submissions, and the availability of funding through the supply process (see Figure 3).</li> <li>• There is a limited time period to achieve this prior to the end of the current funding source (FCSAP).</li> </ul>

## Specific Program Envelope

A Specific Program Envelope is defined through a single department Cabinet submission and might also require a submission to Treasury Board for expenditure authority. Depending on the scale of the program and its projects, multiple submissions might be required. A department operates a funding envelope targeted towards specific program e.g. Northern Contaminated Sites.

**Table 5: Pros and Cons of Specific Program Envelope**

PROS	CONS
<ul style="list-style-type: none"> <li>• <u>Stable funding</u>: funding is associated with fixed time-periods and cannot be altered by external influences (e.g. Government change).</li> <li>• Can be designed to minimize challenges like the ones encountered in FCSAP. The following can be implemented if needed:               <ul style="list-style-type: none"> <li>○ Life cycle</li> <li>○ Multi-year funding</li> <li>○ Flexibility of expenditures</li> <li>○ Flexible eligibility criteria</li> <li>○ Contingency</li> </ul> </li> <li>• <u>Managing and Reporting efficiency</u>: external delays are minimized because the funding requests are coordinated and sent by a single department instead of multiple ones.</li> </ul>	<ul style="list-style-type: none"> <li>• <u>Stakeholder / Third-party expert involvement</u>: more time will be required to engage with central agencies to discuss and define program funding details.</li> <li>• Possible pushback from other government departments with remaining liabilities that will be left out.</li> <li>• Tolerance for multiple funding sources for the same activity (i.e. remediation of contaminated sites) is unknown.</li> <li>• Alignment needs to be planned or coordinated between planned activities, funding submissions, and the availability of funding through the supply process (see Figure 3).</li> <li>• There is a limited time period to achieve this prior to the end of the current funding source (FCSAP).</li> </ul>

## Public-Private Funding

A Public-Private Partnership is when government and industry share the financial cost of a project. The private sector partner recovers their investment from an external revenue stream (e.g. selling water treated to customers). It requires strong commitments and highly detailed contracts between both participants. This type of funding has become popular for certain projects where specific performance is required. An example of a successful public-private partnership is the Britannia Mine Water Treatment Plant in British Columbia.

Table 6: Pros and Cons of Public-Private Funding

PROS	CONS
<ul style="list-style-type: none"> <li>• <u>Stakeholder / Third-party expert involvement</u>: can be included in funding process and associated decisions</li> <li>• <u>Managing and Reporting efficiency</u>: resources required and managing / reporting on funding can be optimized</li> <li>• <u>Contingency</u>: funding can be made available for contingencies</li> </ul>	<ul style="list-style-type: none"> <li>• May not be suitable for the overall project, if there is insufficient guarantee for a private entity to ensure a return on their investment.</li> <li>• There is a limited time period to achieve this prior to the end of the current funding source (FCSAP).</li> <li>• <u>Life cycle</u>: no life cycle funding guaranteed</li> <li>• <u>Stable funding</u>: not protected from external influences (e.g. Government change)</li> </ul>



## Trust Fund

A trust fund for a remediation site can be seeded with funds from government, industry, levies, non-government organizations, and typically is funded through some combination of the above. A trust fund is generally used when the longevity or solvency of the entity responsible for the remediation cannot be relied on (e.g. a commercial entity that could go bankrupt before the remediation activities are completed). It is designed to be self-sustaining and, with clear governance and objectives, can continue to deliver on stated goals for long periods of time.

Table 7: Pros and Cons of a Trust Fund

PROS	CONS
<ul style="list-style-type: none"> <li>• <u>Life cycle</u>: funding for the perpetual care of Giant Mine can be made available.</li> <li>• <u>Stable funding</u>: funding is protected from external influences (e.g. Government change).</li> <li>• <u>Stakeholder / third-party involvement</u>: can be an important part of the governance of funds.</li> <li>• Managing and reporting efficiency: can be optimized.</li> <li>• <u>Contingency</u>: funding can be made available for contingencies.</li> </ul>	<ul style="list-style-type: none"> <li>• <u>Managing and Reporting inefficiency</u>: resources required and managing / reporting on funding could be complex</li> <li>• There is a limited time period to achieve this prior to the end of the current funding source (FCSAP).</li> <li>• Not a very common funding option so could be difficult to get approved.</li> <li>• Funding would be required in a lump sum, increasing net cost</li> <li>• Management fees and other costs</li> <li>• Risk of trust holder going insolvent/out of business</li> </ul>

## CONCLUSION

Current funding for the remediation of the Giant Mine is provided through annual appropriations from the Federal Contaminated Sites Action Plan program, which will continue until 2020. A new source of funds will be required to complete the remediation of the Giant Mine site, and it has been estimated that post-remediation care, maintenance, and monitoring costs will be on the order of \$1-2 million per year, for a significant period of time. While these costs may decrease over time as the site reaches steady state and monitoring and maintenance requirements decrease, there is a need for ongoing sources of funds for the Giant Mine Remediation Project for at least the next 50 to 100 years.

Seeking a funding approach from outside the supply process, while unconventional, may be appropriate when more conventional funding is a poor fit for a project, or when an unconventional approach is demonstrably better for the specific circumstances. Some of the examples where third-party administered trust arrangements were appropriate involved the creation of assurance funds from multiple sources, aggregate financing from multiple payors, or funding a portfolio of projects, or combinations thereof. In some cases, the approach was appropriate because of a meaningfully high risk of the insolvency, incapacity, or disappearances of the payor or payors.

In this case, with both a single payor and a single project, and where that payor is a senior order of government at the lowest risk of incapacity or insolvency, it would require a very compelling case to overcome the negative aspects of third-party trust financing, specifically a clear indication that the Government of Canada would be unable to provide funding to the Giant Mine Remediation Project as required through the supply process. The likelihood of a private bank or trust company remaining solvent in a situation where the government was not is extremely low.

As required by the Environmental Assessment, this report describes the results of the Project Team's initial investigation into long-term funding options for the ongoing maintenance of this Project and for contingencies, including a trust fund with multi-year up front funding, and the consideration of the criteria that will be assessed against the different funding options available

for the Giant Mine in the context of the government supply process. The next step is to providing stakeholders with the opportunity to review the report and provide comments to facilitate further public discussions on funding options.

Comments on this report can be provided to the Giant Mine Remediation Project Team via email at: [GiantMine@aandc-aadnc.gc.ca](mailto:GiantMine@aandc-aadnc.gc.ca) (please include “Measure 6 Report Comments” in the subject line), or by mail at: P.O. Box 1500, Yellowknife, NWT X1A 2R3, via telephone at 1-867-669-2426, or by scheduling an in person by appointment with the Deputy Director by contacting the Giant Mine Remediation Project Office.

## REFERENCES

Taylor, Amy and Duncan Kenyon, *Giant Mine Perpetual Care Funding Options*, March 2012,  
Pembina Institute

Government of Canada. *Federal Contaminated Sites Action Plan (FCSAP)*. n.d.  
<[www.federalcontaminatedsites.gc.ca](http://www.federalcontaminatedsites.gc.ca)>.

—. *Frequently Asked Questions - Funding Approaches*. n.d. <[www.aadnc-aandc.gc.ca](http://www.aadnc-aandc.gc.ca)>.

—. *Giant Mine Remediation Project*. n.d. <[www.aadnc-aandc.gc.ca](http://www.aadnc-aandc.gc.ca)>.

Treasury Board of Canada Secretariat. *Estimates and the Parliamentary Supply Process*. n.d.  
<[sencanada.ca](http://sencanada.ca)>.