

# **Evaluation of INAC's Contaminated Sites Management Policy and Programming**

**Final Report**

**Evaluation, Performance Measurement and Review Branch  
Audit and Evaluation Sector  
Indian and Northern Affairs Canada**

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# Executive Summary

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The purpose of this evaluation is to assess the degree to which INAC is meeting the objectives as stated in its Contaminated Sites Management Policy (2002) and to ensure programming under this policy continues to be relevant and are achieving results in a cost-effective manner. The department is committed to managing contaminated sites in a cost-effective and consistent manner in order to reduce and eliminate, where possible, risk to human and environmental health and liability associated with contaminated sites.

With a financial liability of approximately \$1.5 billion reported for contaminated sites as of March 31, 2008, INAC has the largest contaminated sites liability among federal departments with most liabilities occurring in the North. The department is a key contributor to the Federal Contaminated Sites Action Plan (FCSAP) which addresses the remediation or management of federal contaminated sites resulting from the legacy of *past* practices. The department has also responsibilities in ensuring future liabilities to the Crown are prevented from the creation of *new* contaminated sites on land under its custodial responsibility.

The department currently has two established programs dealing with contaminated sites: Northern Affairs Organization's Northern Contaminated Sites Program (NAO-NCSP) with responsibilities for liabilities associated with contaminated sites north of 60°, and the Indian and Inuit Affairs Business Line's, Contaminated Sites Management Program (IIABL-CSMP) with responsibilities for liabilities associated with contaminated sites on-reserve land. The objective of both programs is to operationalize the departmental Contaminated Sites Management Policy. INAC also recognizes the potential for contamination in the context of its custodial operational real property assets and has initiated a review exercise to identify and assess any contaminated custodial real property assets by 2010.

Field work for the evaluation was conducted between April and June 2008 and results were based on the analysis and triangulation of data obtained through file and document review, key informant interviews, site visits to all INAC regional offices and validation sessions with program areas. Key findings from the evaluation are as follows:

## *Relevance*

INAC's contaminated sites policy and programming remain highly relevant to both the department and the broader federal program, FCSAP. They are linked to key departmental strategies involving the North, environmental protection, land management, economic development, and consultation. Moreover, though progress has been made in addressing the risks that contaminated sites pose to human health and the environment, the vast majority of sites, including two major priority sites in the North, the Faro Mine in the Yukon and Giant Mine in NWT, have not yet moved into the remediation stage, thus signalling a strong continued need for the contaminated sites policy and programming at INAC.

### *Success*

INAC will not meet FCSAP's 2020 target of eliminating known liability related to contaminated sites and the financial liabilities for the department have in fact increased 73% in the past four years. The expenditures being made on assessment and remediation activities have however contributed to creating more certainty in the liability amount reported. As sites begin to move through the remediation stage, the liability is expected to start decreasing though no noticeable reduction in the overall departmental liability is likely in the short term.

The evaluation found evidence that social and economic benefits are being accrued to Aboriginal people and Northerners and that the programming is creating confidence among stakeholders that the federal government is taking responsibility for the long-term management of federal contaminated sites and is putting in place measures to protect the future. The evaluation also concluded that due to the complexity of legislation, regulations and policy requirements related to contaminated site clean up, further study regarding INAC compliance to these regulations is warranted, particularly in the area of obligations stemming from comprehensive land claim agreements.

### *Cost Effectiveness*

Results from the evaluation conclude that NAO-NCSP was able to significantly leverage FCSAP funding, had in place risk management and cost effective practices, and to the greatest extent possible was able to apply the polluter pay principle for larger sites, though a procedure for identifying, and pursuing polluters for smaller scale sites is required. Moreover, the Mines Site Reclamation Policy and regulatory regime in the North was, in the opinion of most key informants, providing an adequate level of securities to prevent future liabilities to the Crown.

The evaluation found that the IIABL-CSMP was significantly under-leveraging FCSAP funds and though they had the foundation for risk management and cost effective practices, these practices were not being implemented. There was evidence that the polluter pay principle has been enforced at times, but there was a lack of data that supported to what degree this was occurring. The evaluation found that INAC generally failed to apply the polluter pay principle when the polluter is a First Nation member or band-operated business. Concerns were also raised regarding the lack of regulatory and enforcement tools to stop future contaminated sites from being created on-reserve.

### *Design and Delivery*

The decentralized model for delivery is an appropriate program delivery model for both program areas although a strengthened role from Headquarters is required including clarification of roles and responsibilities. Program performance for the IIABL- CSMP has been hampered by a lack of dedicated A-base program funding and senior management support. The evaluation also found evidence of data integrity and efficiency issues related to liability reporting.

It is recommended that INAC:

1. Provide comprehensive and strategic input to the FCSAP Secretariat for the FCSAP 2010 renewal process to ensure INAC needs are represented, best practices are put forward, and that departmental programming and policy continues to support and be consistent with this initiative.
2. Develop a comprehensive human resources strategy for program delivery that address human resourcing issues, both within and external to the department, including the development of a training strategy that promotes Aboriginal training and skills development.
3. Conduct a program management review for IIABL-CSMP prior to program renewal in order to improve overall program performance and management. The review will include developing annual targets for assessment and remediation and management practices to achieve targets. NAO-NSCP best practices will be leveraged.
4. Further strengthen the management and technical expertise provided by Headquarters for the NAO-NCSP to respond to human resourcing issues and increased risk associated with large scale remediation efforts.
5. Consider creating a new funding authority that provides dedicated funding to support departmental contaminated sites policy and programming. This funding authority would facilitate the achievements of targets and the leveraging of FCSAP funds for both IIABL-CSMP and NAO-NCSP and consider the requirements of contaminated sites found on custodial operational real property assets.
6. Enhance the intradepartmental linkages contaminated sites programming has with key departmental strategies, including linkages regarding environmental protection, land management, economic development, consultation, and contracting. This includes:
  - Effective linkages with FNLMI.
  - Undertaking further study to ensure compliance with legislation, regulations and policy requirements related to contaminated site clean up, particularly in the area of obligations stemming from comprehensive land claim agreements.
  - Finding mechanisms to ensure the clean up of contaminated sites that are not eligible for FCSAP funding, such as waste sites that have remained active after 1998, and
  - Ensuring steps are taken for the prevention of future liabilities to the Crown as a result of the creation of new contaminated sites on lands under departmental custodial responsibility.

# 1. Introduction

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Contaminated sites are sites that pose, or are likely to pose, an immediate or long-term hazard to human health and/or the environment and are often a legacy of past practices. Indian and Northern Affairs Canada (INAC) is responsible for the management of contaminated sites located on-reserve land, on federal lands north of 60°, and on any other lands under the department's custodial responsibility. INAC is responsible for dealing with contamination resulting from the operations of others, including First Nation communities, 21 Distant Early Warning (DEW) line sites, abandoned mines in the North, its own operations, and the actions of individuals and/or organizations involved with lands being held by the department for land claims settlements with First Nations.

With a financial liability of approximately \$1.5 billion reported for contaminated sites as of March 31, 2008, INAC has the largest contaminated sites liability among federal departments with most liabilities occurring in the North. The department is a key contributor to the Federal Contaminated Sites Action Plan (FCSAP) which addresses the remediation or management of federal contaminated sites resulting from the legacy of *past* practices. The department also has responsibilities in ensuring future liabilities to the Crown are prevented from the creation of *new* contaminated sites on land under its custodial responsibility.

The purpose of this evaluation is to assess the degree to which INAC is meeting the objectives as stated in its Contaminated Sites Management Policy and to ensure programming under this policy continues to be relevant and are achieving results in a cost-effective manner.

## 1.1 Policy and Programming Description

### *1.1.1 Federal Contaminated Sites Action Plan*

The Government of Canada, through the Federal Contaminated Sites Action Plan (FCSAP), is committed to taking action on federal contaminated sites to protect both human health and the environment. The FCSAP intent is the reduction of environmental and human health risks and the elimination of the federal financial liability related to known historic federal sites by 2020. FCSAP is administered jointly by Environment Canada (EC), which houses the FCSAP Secretariat, and Treasury Board of Canada Secretariat (TBS). Scientific and technical support and advice are provided by EC, Department of Fisheries and Oceans (DFO), Health Canada (HC) and Public Works and Government Services Canada (PWGSC). The FCSAP was established in 2005 as a 15-year program with a commitment of \$3.5 billion for the long-term management of federal contaminated sites.

INAC is one of 16 custodians (federal departments, consolidated Crown corporations or agencies) that have entered into funding agreements with FCSAP. Custodians develop proposals and lead remediation efforts for contaminated sites for which they are responsible on a cost shared basis. A multi-department formative program evaluation for FCSAP being led by EC is currently underway and expected to be completed in the fall of 2008.

### *1.1.2 INAC's Contaminated Sites Management Policy*

Through INAC's Contaminated Sites Management Policy (2002), the department is committed to managing contaminated sites in a cost-effective and consistent manner in order to reduce and eliminate, where possible, risk to human and environmental health and liability associated with contaminated sites. The objectives of the policy are as follows:

1. to meet federal and departmental policy requirements and legal obligations regarding the management of contaminated sites;
2. to require that, where a suspected contaminated site has been identified, the site be assessed in a timely, consistent and cost effective manner;
3. to provide a scientifically valid, risk management based framework for setting priorities, planning, implementation and reporting on the management of contaminated sites;
4. to remediate, based on approved resource levels, all National Classification System (NCS) Class 1 contaminated sites in the North, and Class 1 and 2 contaminated sites on-reserve, on a priority basis, unless it can be demonstrated that for a specific site an alternative form of management is appropriate;
5. to promote the social and economic benefits that may accrue to First Nations, Inuit and Northerners when carrying out activities required by this policy; and
6. to promote the federal "polluter pay" principle.

### *1.1.3 INAC's Contaminated Sites Programming*

INAC currently has two established programs dealing with contaminated sites: the Northern Contaminated Sites Program (NCSP) with responsibilities for liabilities associated with contaminated sites north of 60°, and the Contaminated Sites Management Program (CSMP) with responsibilities for liabilities associated with contaminated sites on-reserve land. The objective of both programs is to operationalize the departmental Contaminated Sites Management Policy.

NCSP manages fewer sites (437 sites in 2007/08) with much larger liabilities (\$1.4 billion at March 31, 2008) whereas CSMP manages more sites (1,308 sites in 2007/08) with smaller liability amounts (\$98 million at March 31, 2008). The management of contaminated sites for NCSP, which mostly relates to abandoned mine sites and military sites, is more complex and involves longer time frames than what is required for the sites in CSMP, which are mostly related to abandoned dump sites and fuel spills.

#### *Northern Contaminated Sites Program (NCSP)*

The Northern Contaminated Sites Program, which was previously known as the Waste Management Program, was created in 1991. The program is led by the Northern Affairs Organization (NAO) within the Northern Affairs Sector. In the NWT and Nunavut, NAO is directly responsible for managing the program. In the Yukon, the responsibility for managing contaminated sites is guided by the requirements of the Devolution Transfer Agreement between the federal and Yukon governments.

Allocated funding for 2007/08 totaled \$115.2M which includes departmental funds (\$13.5M) and funds transferred from FSCSP (\$101.7M). The funding authority for NCSP falls under the *Contribution for promoting the safe use, development, conservation and protection of the North's natural resources*, which expires in 2010. A Contaminated Sites Program Review (2002-2006) was completed in 2007.<sup>1</sup> This review found that the program has achieved significant improvements in the past four years and that it is likely to meet its objective of remediation of all Class 1 sites by 2027 but is unlikely to meet 2012 targets to assess all contaminated sites.

### *Contaminated Sites Management Program (CSMP)*

The Contaminated Sites Management Program was created in 2002 and replaced the existing Indian Environmental Partnership Program. The Program is led by the Indian and Inuit Affairs Business Line (IIABL) within the Lands and Economic Development Sector. Funding allocations for contaminated sites management is allocated to INAC regions based on nationally approved work plans and budgets.

Allocated funding for 2006/07 totaled \$20.5M which includes departmental funds (\$10.7M) and funds transferred from FSCSP (\$9.8M). The funding authority for CSMP falls under the *Contribution to First Nations for the Management of Contaminated Sites*, which expires in 2010. There has been no previous evaluation of the Contaminated Sites Management Program. The Indian Environmental Partnership Program was last evaluated in 2003.

#### *1.1.4 Real Property Holdings*

Non-operational custodial real property refers to properties held by the department for land claim settlement purposes and are the responsibility of the Treaties and Aboriginal Government Sector. Non-operational custodial real property assets are managed on behalf of INAC by Public Works and Government Services Canada.

Presently, INAC has 335 real property holdings, 165 being custodial real property assets for operational purposes including public works and infrastructure, and 170 being held by INAC for land claims settlement purposes.

In contrast with contaminated sites on First Nation lands and/or lands north of 60°, no contaminated custodial operational real property assets have been formally identified since the development of the departmental Contaminated Sites Management Policy. INAC recognizes the potential for contamination in the context of its custodial operational real property assets and has initiated a review exercise to identify and assess any contaminated custodial real property assets by 2010.

## **1.2 Findings from OAG Reports**

In 2002, the Office of the Auditor General (OAG) reported that 13 years after it began to tackle contaminated sites, the federal government did not know how many sites it had, the health and

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<sup>1</sup> Interis, INAC Contaminated Sites Program Review (2002-2006), March 31, 2007



environmental risks they represented, or the likely cost of cleaning them up. Nor was it providing central leadership and an action plan for dealing with the higher-risk sites.<sup>2</sup>

In 2008, the OAG reported that the government had made satisfactory progress in managing its contaminated sites and the four departments audited, which included INAC, are putting significant effort into managing their contaminated sites. However, the Audit also reported that although regulations which require departments to take action on their petroleum storage tanks will require tanks found to be leaking to be withdrawn from service immediately, their full effect will not come into force until up to four years after the regulations are put in place. Therefore, tanks considered to be at high risk of leaking could remain in service until then.<sup>3</sup>

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<sup>2</sup> 2002 October Report of the Commissioner of the Environment and Sustainable Development, Chapter 3 – Abandoned Mines in the North.

<sup>3</sup> 2008 March Report of the Commissioner of the Environment and Sustainable Development, Chapter 3 – Chemicals Management – Federal Contaminated Sites.

## 2. Evaluation Methodology

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### 2.1 Evaluation Scope and Timing

The evaluation focused on INAC's response from 2002 to the present regarding the health and environmental risks and liabilities as a result of contaminated sites on lands under the department's custodial responsibility. Terms of reference for the evaluation were approved by INAC's Audit and Evaluation Committee in December 2007. Field work for the evaluation was conducted between April and June 2008.

### 2.2 Evaluation Issues

The evaluation focused on the following issues:

- *Relevance*: Is the policy and programming consistent with departmental and government wide priorities and do they realistically address an actual need?
- *Success*: What progress has the policy and programming made in meeting its objectives, within budget and without unwanted negative outcomes?
- *Cost-effectiveness*: Are the most appropriate and efficient means being used to achieve outcomes, relative to alternative design and delivery approaches?
- *Design and Delivery*: Are program roles and responsibilities clear? Are programs being delivered as designed?

### 2.3 Data Sources

Results from the evaluation were based on the analysis and triangulation of the following data sources.

- *Document and file review*: Memoranda to Cabinet, TB submissions, previous evaluation reports, OAG reports, management plans, progress and performance reports, liability and contingent liability reports, project file reviews, and administrative data
- *150 key informant interviews*: INAC (114), FCSAP Secretariat and Expert Support (9), Provincial/territorial governments (6), Aboriginal Bands, community representatives, self-governing Aboriginal organizations (10), Subject Matter Experts (11)
- *10 regional site visits*: British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Quebec, Atlantic, Yukon, Northwest Territories, and Nunavut
- *2 validation sessions* with program areas was conducted to discuss preliminary findings

### 2.4 Limitations

The evaluation did not examine the compliance to legislative framework but rather assessed whether policy, management guides and directives were aligned to the legislative framework. Assessing success in meeting its legal obligations in the context of this evaluation means progress made towards reducing the liabilities as well as risk to human health and the environment.

## 3. Evaluation Findings - Relevance

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The evaluation looked for evidence that the contaminated sites policy and programming at INAC is consistent with government-wide and departmental priorities and realistically addresses an actual need. We would expect to find consistency with the objectives of FCSAP and that appropriate linkages with other relevant government priorities and strategies are being made. We would expect to find a continuing need for the results that the policy and programming are seeking to address.

Findings from the evaluation conclude that INAC's contaminated sites policy and programming remain highly relevant to both the department and the broader federal program, FCSAP. They are linked to key departmental strategies involving the North, environmental protection, land management, economic development, and consultation. Moreover, though progress has been made in addressing the risks that contaminated sites pose to human health and the environment, the vast majority of sites, including two major priority sites in the North, the Faro Mine in the Yukon and Giant Mine in NWT, have not yet moved into the remediation stage, thus signalling a strong continued need for the contaminated sites policy and programming at INAC.

### 3.1 Consistent with FCSAP

The Government of Canada is committed to taking action on federal contaminated sites to protect both human health and the environment.

*"Our Government takes its responsibilities to protect the health and safety of Canadians and the environment very seriously...By making strong investments like this one, this government is ensuring that the quality of the air we breathe and the water we drink, the health of our ecosystems and the wildlife they support will be maintained for future generations of Canadians."*<sup>4</sup>

INAC is a key player in the FCSAP program, having the largest contaminated sites liability among all federal custodial departments. The total departmental liability reported for contaminated sites as of March 31, 2007 was approximately \$1.3 billion. This accounts for 43 percent of the \$3.0 billion in environmental liabilities that the federal government is obligated, or likely obligated, to incur.<sup>5</sup>

Table 1 illustrates that for the fiscal year 2007-2008, INAC's remediation or risk management projects account for 56 percent of total FCSAP funding with most activity occurring in the three territories.

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<sup>4</sup> Quote from then Minister of the Environment, John Baird - Environment Canada's News Release, July 26, 2007 - *Canada's New Government Invests \$214 Million To Clean Up Contaminated Sites.*

<sup>5</sup> Public Accounts of Canada, 2007. This figure excludes approximately \$2.9 billion to Atomic Energy of Canada Limited's nuclear facilities decommissioning and \$119 million to National Defence for unexploded ordnance affected sites.

Table 1 – INAC Proportion of FCSAP Funds 2007-08<sup>6</sup>

National Distribution of Approved FCSAP Funding in 2007-08 (\$M)								
Province	Remediation/Risk Management				Assessment			
	Number Projects All	Number Projects INAC	Approved FCSAP Funding All	FCSAP Funding Approved INAC	Number Projects All	Number Projects INAC	Approved FCSAP Funding All	Approved FCSAP Funding INAC
All	279	61	\$189.4	\$105.8	417	67	\$25.0	\$4.6
AB	5	0	\$1.1	\$0.0	50	9	\$1.5	\$0.2
BC	77	9	\$20.2	\$2.2	18	1	\$2.1	\$0.2
MB	15	10	\$4.6	\$4.1	25	2	\$1.4	\$0.4
NB	6	0	\$0.3	\$0.0	37	3	\$0.6	\$0.1
NL	12	0	\$6.2	\$0.0	34	1	\$1.9	\$0.0
NS	29	0	\$3.5	\$0.0	41	1	\$0.7	\$0.0
NT	15	13	\$55.4	\$55.3	17	6	\$2.4	\$0.8
NU	27	11	\$54.8	\$21.7	20	5	\$2.9	\$0.3
ON	31	5	\$8.7	\$2.7	43	6	\$5.2	\$1.2
PE	8	0	\$0.4	\$0.0	10	1	\$0.2	\$0.0
QC	40	8	\$9.0	\$0.1	59	27	\$3.3	\$0.8
SK	5	1	\$4.6	\$0.1	56	4	\$1.8	\$0.5
YT	9	4	\$20.6	\$19.6	7	1	\$1.0	\$0.1

The objectives of INAC’s contaminated sites policy and programming are aligned and consistent with the primary objectives of FCSAP. These include addressing the risks that contaminated sites pose to human health and the environment and reducing the associated financial liability.

### 3.2 Linkages with other strategies and priorities

Both north of 60° and on-reserve land, the pace of economic development is accelerating. On-reserve, the land base is expected to increase by over 55 percent between 1990 and 2010 which will include lands with extensive mineral and other resources. In the territories, the mining industry is the most important business activity worth \$1.6 billion dollars in 2007 with the value of mineral production increasing throughout the North.<sup>7</sup> A number of issues surrounding drinking water quality on-reserve have also arisen as a result of economic development and other activities that have polluted the source water surrounding First Nations communities.<sup>8</sup> Many northern communities experience high levels of diesel contamination as buried military equipment has resulted in elevated levels of PCBs in nearby water systems.

Cleaning up existing contaminated sites and having a regulatory system in place that prevents future liabilities to the Crown as well as risks to human health and the environment are strongly linked with key departmental strategies and priorities and an important contributor to INAC’s overarching mandate and strategic outcomes.

<sup>6</sup> Information obtained from FCSAP Secretariat at Environment Canada

<sup>7</sup> Natural Resources Canada. *2007 Canadian Mineral Production Exceeds \$40 Billion*. Information Bulletin, March 2008.

<sup>8</sup> Final Report of The Standing Committee on Aboriginal Peoples, *Safe Drinking Water for First Nations*, May 2007

### 3.2.1 *The North*

With the vast majority (93%) of the of the department's liabilities for contaminated sites found north of 60°, results from the NAO-NCSP will contribute to the environmental, social and economic development, and governance aspects of an integrated Northern Strategy. Expertise developed as part of the northern remediation efforts will contribute to scientific knowledge also being generated by The International Polar Year.

### 3.2.2 *Environmental Protection*

The clean up of contaminated sites contributes to a safer, healthier, and sustainable environment for First Nations, Inuit and Northerners by striving to preserve and enhance the ecological integrity of the environment. This supports the current departmental focus on sustainable development and environmental stewardship. The clean up of contaminated sites therefore contributes to the goals of the:

- Sustainable Development Strategy
- Environmental Stewardship Strategy
- First Nations Water Management Strategy

### 3.2.3 *Land Management*

For both north and south of 60°, land claims and self-government agreements are enabling Aboriginal control and participation in the management of large land masses. Conducting environmental site assessments and the clean up of contaminated sites is an important element in the transfer of land and land management responsibilities to First Nations as per the requirement of the Treasury Board Policy on Management of Real Property.<sup>9</sup> Contaminated sites programming therefore supports:

- First Nations Land Management (FNLM) regime
- Devolution Agreements: Yukon Devolution Transfer Agreement and the future devolution of land and resource management responsibilities in NWT and Nunavut
- Land Claim Agreements – settled and unsettled
- Treaty Land Entitlement / Additions to Reserve

Environmental site assessments and the clean up of contaminated sites is also a necessary step when INAC divests itself of its surplus custodial property either by sale of the property by PWGSC or transferring it to another level of government.

### 3.2.4 *Economic Development*

The departmental long-term agenda is to secure economic well-being and prosperity for Aboriginal people and Northerners that is comparable to other Canadians. This supports the broader Government of Canada's *Advantage Canada* approach to creating new opportunities for people, investing for sustainable growth and creating the right economic conditions to encourage

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<sup>9</sup> Treasury Board Secretariat, 2006, Policy on the Management of Real Property. 5(c).

firms to invest and flourish.<sup>10</sup> The remediation of contaminated sites allows for the reuse of land for economic development and a clean land base facilities investment. Contaminated sites clean up is done in a manner that supports social and economic development and contributes to:

- Procurement strategies that support social economic benefits to First Nations, Inuit and Northerners
- Training opportunities
- Departmental Resource Management Policy

### 3.2.5 Consultation

Stakeholder consultation and participation are a key components to the identification, assessment, decision-making and remediation related to contaminated sites. Consultation activities support the objectives of the Federal Action Plan on Aboriginal Consultation and Accommodation.

## 3.3 Continuing Need

Between 2003/04 to 2007/08, INAC spent approximately \$425 million to reduce the liability for contaminated sites. During this time period, only three Class 1 sites have been completely remediated, all within the NAO-NCSP. No Class 1 or Class 2 sites within the IIABL-CSMP have yet been fully remediated.<sup>11</sup>

As Table 2 illustrates, the majority of sites for both program areas are either suspected of being contaminated but have yet to be assessed, or have insufficient information to classify them though a minimum Phase 1 Environmental Site Assessment has been conducted. Program managers have indicated that the vast majority of these sites will not be Class 1 or Class 2 sites since the highest risk sites are known and have been assessed. Of the identified Class 1 and Class 2 sites, the majority are in the pre-remediation stage, including the two sites with the largest liability, Faro Mine in the Yukon and the Giant Mine in the NWT. The evaluation results therefore conclude that a strong continued need exists for the contaminated sites policy and programming at INAC.

Table 2 – Number of Contaminated Sites by Program (2007-08)<sup>12</sup>

Program	Class 1	Class 2	Class 3	Class N	Class INS	Suspected <sup>13</sup>	Total
NAO-NCSP	50	26	4	3	5	349	437
IIABL-CSMP	206	335	127	48	467	125	1,308

<sup>10</sup> Department of Finance, Advantage Canada *Building a Strong Economy for Canadians*, 2006

<sup>11</sup> See Appendix A for definitions of site classifications

<sup>12</sup> Data obtained from NAO-NCSP and IIABL-CSMP. Refer to Appendix A for description of site classification.

<sup>13</sup> The number of suspected sites for the NAO is an estimate as new sites are being added annually.

## **4. Evaluation Findings - Success**

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The evaluation looked for evidence that the contaminated sites policy and programming at INAC is effective in meeting its objectives, within budget and without unwanted negative outcomes. We would expect to find that targeted reductions to financial liabilities, human health risks and ecological risks are being met. We would expect to find that the policy and programming support relevant legislation, regulations and policies requirements, and that social and economic benefits have accrued to First Nations, Inuit and Northerners as a result of the activities being carried out under the policy.

Results from the evaluation conclude that INAC will not meet FCSAP's 2020 target of eliminating known liability related to contaminated sites and that the financial liabilities for the department have in fact increased 73% in the past four years. The expenditures being made on assessment and remediation activities have however contributed to creating more certainty in the liability amount reported. As sites begin to move through the remediation stage, the liability is expected to start decreasing though no noticeable reduction in the overall departmental liability is likely in the short term. NAO-NCSP is on target to remediate all of its Class 1 sites by 2027 though liability will never be fully eliminated due to the need to continue long-term care and maintenance on a number of sites including the Giant and Faro Mines. The IIABL-CSMP, due to the large amount of suspected sites still needing to be assessed, will need to redefine its targets in order to meet FCSAP's objectives.

The evaluation found evidence that social and economic benefits are being accrued to Aboriginal people and Northerners and that the programming is creating confidence among stakeholders that the federal government is taking responsibility for the long-term management of federal contaminated sites and is putting in place measures to protect the future. The evaluation also concluded that, because of the complexity of legislation, regulations and policy requirements related to contaminated site clean up, further study regarding INAC compliance to these regulations is warranted, particularly in the area of obligations stemming from comprehensive land claim agreements.

### **4.1 Targeted Reduction in Financial Liabilities**

#### *4.1.1 Total Departmental Liability*

The total departmental liability reported for contaminated sites at March 31, 2008 was approximately \$1.497 billion (NAO-NCSP accounts for 93% of the reported liability and the IIABL-CSMP accounts for the remaining 7%).<sup>14</sup> In 2003/04, the reported liability was approximately \$863 million. In four years, the liability has increased by approximately \$634 million or 73%.

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<sup>14</sup> Liability reported by NAP and IIABL on their respective T5a5 reports for March 31, 2008.

During this period of time, funding was received from FCSAP and considerable amounts were spent on addressing contaminated sites. For example, between 2003/04 and 2007/08 the department spent approximately \$425 million on expenditures reducing the liability. During this same period the FCSAP funding portion of these expenditures amounted to approximately \$351 million, or 83%.

Liability has been increasing at a greater rate than the expenditures being spent to reduce it. Given the level of funding received from FCSAP, and the expenditures made to reduce the liability, it seems paradoxical for the liability to be continually increasing. The change in liability estimates is largely dependent on what stage sites are at in FCSAP's 10-step process.<sup>15</sup> During assessment steps, the liability tends to increase as more knowledge of the state of contamination at the site is uncovered. During the remediation planning steps the liability can increase or decrease depending on decisions made regarding remediation strategies and cost estimates for planned activities. It is during the remediation stage that the liability is expected to start to decrease as expenditures are incurred to implement the remediation plan and remediation activities are conducted.

Approximately 63% of the sites are in the pre-remediation stage, that is, they are currently within steps 1 to 7. These sites account for 60% of the department's liability estimate. Therefore, it is reasonable to expect that the liability estimates related to these sites may increase as more assessment and remediation planning work is completed. As such, a noticeable reduction in the overall departmental liability is unlikely in the short term.

In addition to reporting liabilities related to contaminated sites, the department is also required to report *contingent liabilities*. TBS policy states that if it is unclear whether the government is obligated to incur remediation costs, the costs should be considered as contingent liabilities. The total contingent liability for the department at March 31, 2008 was approximately \$629 million. This represents approximately 42% of value of the total liability amount reported. Most of this amount (98%) relates to the NAO-NCSP, and in particular the Faro Mine site, which accounts for almost 3/4 of departmental amount.

However it should be noted that the funding provided by FCSAP is intended to address the remediation or management of federal contaminated sites that were the result of the legacy of past practices and to address the accumulation of federal liability related to this. The program was not designed to address newly created contamination. Consequently, to determine eligibility for FCSAP funding, contamination must be the result of historical activities, which have been defined as activities that occurred prior to April 1, 1998.

The costs of addressing contamination that occurred or continues to occur after this date on sites for which the department has an obligation or would likely have an obligation to remediate or manage the contamination would still be considered part of the department's liability. Therefore, reduction of the liability related to recently contaminated site (post April 1, 1998) will be dependent on the extent to which the department identifies and funds the activities to address the clean up or management of these sites, and also on the steps taken to prevent contamination from continuing to occur in the future.

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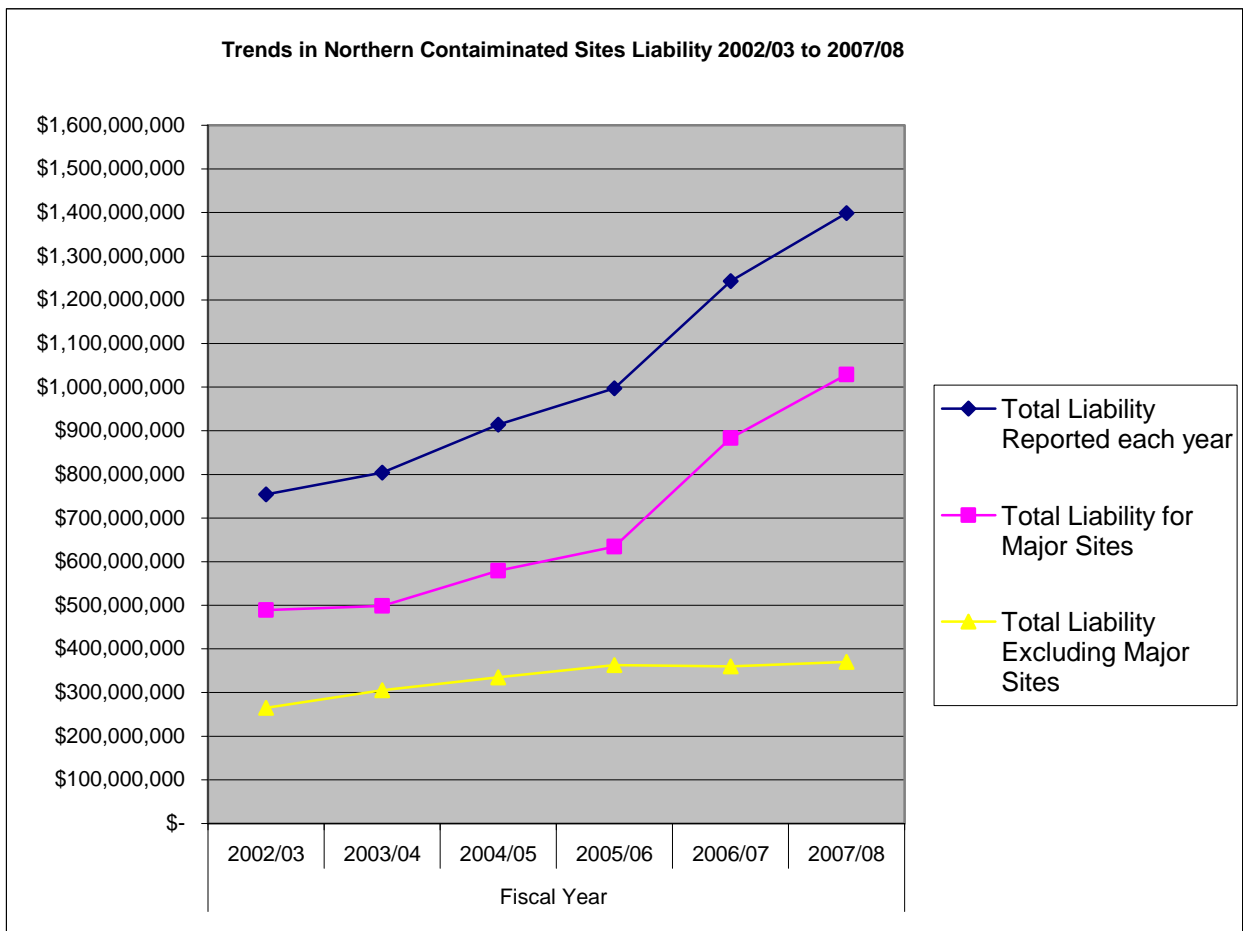
<sup>15</sup> See Appendix A for description of FCSAP's 10 Step Process.



Most of the activities being carried out by the department under the contaminated sites programming have focused on the legacy sites funded by FCSAP. Further investigation and analysis would be required to determine how much of the liability relates to more recent contamination or to quantify the impact on the liability of the risk of contamination continuing to occur in the future.

#### 4.1.2 Progress Towards Reducing the Liability – NAO-NCSP

The liability associated with the NAO-NCSP accounts for 93% or almost the entire department's reported liability for 2007/08. This liability has increased from approximately \$754 million in 2002/03 to approximately \$1.4 billion at March 31, 2008 representing an increase of \$645 million, or 86%. The majority of this liability originates from the Faro Mine (Yukon), accounts for \$527 million of the liability, and Giant Mine (NWT), accounts for \$464 of the liability. Together these mines represent \$991 million, or 71% of the total liability reported by the Program. Overall the liability has been increasing; however, if the major sites (i.e. where estimated liabilities exceed \$90 million) are excluded, the trend shows that the liability related to all other sites started to decrease in 2006/07.

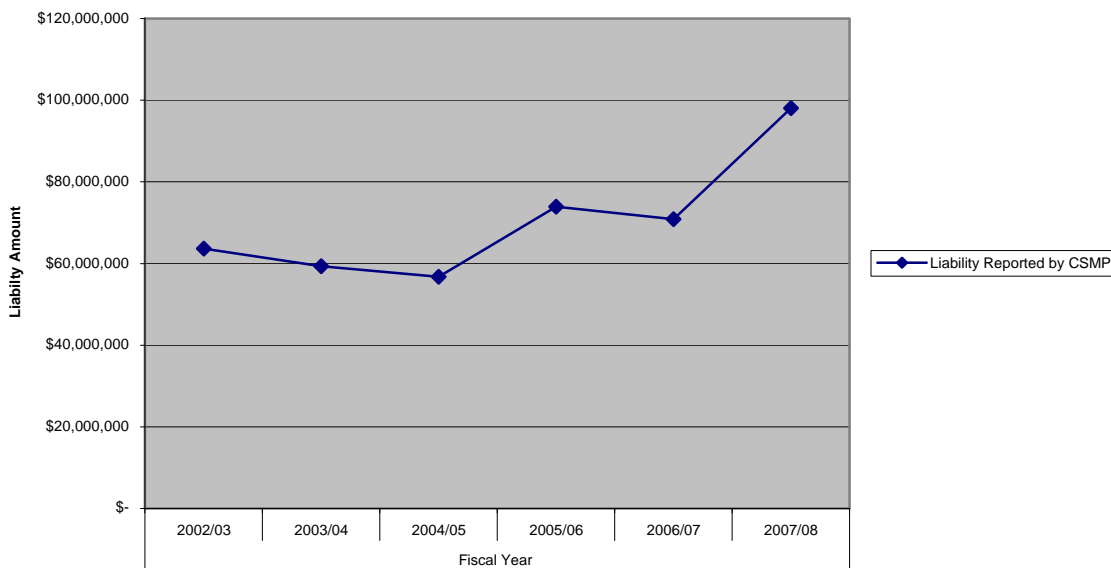


- NAO-NCSP liability has been increasing, mainly due to major sites and the stage at which the sites are at in the 10-step process. Overall liability for the Program is expected to start declining in 2012.
- The existence of a large contingent liability suggests that there is a risk that the liability amount could increase significantly if the contingent liability eventually materializes. A large portion of the contingent liability amount is related to the Faro Mine site. Therefore, the uncertainty revolving around the contingent liability should be reduced once the remediation plan is finalized and approved by the regulatory authorities.
- Suspected sites represent a significant portion of the total sites reported (approximately 82%). The program appears to be behind schedule towards achieving its objective to complete all site assessments by 2012.
- Program is targeting to remediate all of its Class 1 sites by 2027, which will have a major impact on the reduction of the liability over the long-term. The liability will never be fully eliminated, however, due to the need to continue long-term risk management on a number of its sites.

#### 4.1.3 Progress Towards Reducing the Liability – IABL-CSMP

The liability associated with the IABL-CSMP accounts for 7% of the department’s reported liability for 2007/08. This liability has increased from approximately \$64 million in 2002/03 to approximately \$98 million at March 31, 2008. This represents an increase of \$34 million, or 53%. Currently, approximately 63% of the Program’s sites are in the pre-remediation stages, between steps 1 to 7 of the 10-step process. These sites account for approximately 85% of the Program’s liability amount.

**Trend in Contaminated Sites Management Program Liability 2002/03 to 2007/08**



- The IIABL-CSMP has a long-term vision of reducing its liabilities associated with contaminated sites within the next 10 years (according to the 2007/08 CSMP Plan) and has set a target of a 10% or greater annual reduction in liabilities associated with known sites. The program's spending on reducing known liabilities (i.e. liabilities in existence at the beginning of each fiscal year) has exceeded the 10% targeted reduction. However, re-assessments of existing sites and the assessment of newly identified sites have resulted in increases to liability estimates. Therefore, the overall liability has increased rather than decreased; hence, the annual reduction on the overall liability has been less than 10%. Due to the large amount of suspected sites still needing to be assessed, the program will need to redefine its targets in order to meet FCSAP's objective of eliminating the liability related to all contaminated sites by 2020.
- Despite the increase in the liability amount, the expenditures being made on assessment and remediation activities do in fact contribute to creating more certainty in the liability amount reported.
- An analysis of the liability relative to the stages the sites are at in terms of the 10-step process suggests that the trend of an increasing liability may continue for a few more years until more projects progress into the stages of the remediation process that are associated with step 8 and beyond.
- The existence of a large portion of suspected sites, 599 suspected sites reported at March 31, 2008 representing approximately 45% of the total sites reported, creates considerable uncertainty with regard to the completeness of the liability amount reported.
- The emergence of new contaminated sites on-reserve will continue to increase liabilities for the department and will not qualify for FCSAP funding as they were created after 1998.

## **4.2 Targeted Reduction to Risk to Human Health and the Environment**

Since 2002, there have been three Class 1 sites fully remediated and approximately one third of Class 1 sites for NAO-NCSP and Class 1 and 2 sites for IIABL-CSMP have moved into remediation or risk management, resulting in a reduction to the risk to human health and the environment. Approximately two-thirds of known Class 1 and Class 2 sites are however at the pre-remediation stages thus posing possible health and environmental risks. In the case of the larger sites, care and maintenance have been put in place prior to remediation to prevent additional risk to human health and the environment as sites wait for remediation process to begin.

FCSAP requires departments to prioritize according to the nature, severity, and immediacy of the risk to human health, to safety, and to the environment posed by the contaminated sites associated with the projects. INAC's contaminated sites programming is therefore responsible for classifying sites based on the National Classification System and to carry out human health and ecological risk assessments when the estimated costs of remediation/risk management is greater than \$250K.

File and document reviews confirm that INAC has processes and procedures in place in order to rank contaminated sites and manage according to human health and ecological risk and that science-based assessments conducted by consulting environmental engineers are taking place.

However, priorities are at times influenced by project delays and other pressures and work does not always occur according to the risk ranking attributed to sites. For example, land claim agreements include specific commitments from the government to remediate federal contaminated sites within or nearby the settlement area. As the agreement is negotiated, sites are identified and listed in the agreement. Once the agreement has been ratified through settlement legislation, the Government of Canada is bound to delivery on any obligation contained under that agreement. First Nation organizations want action taken on sites in a timely manner and may seek arbitration or court action. As such, contaminated sites in which land claims agreements or transfer of lands through First Nations Land Management Initiative, or Treaty Land Entitlements are typically given assigned priority in the planning process.

FCSAP will fund assessment and remediation of waste sites that are inactive and have been inactive since prior to 1998. However, in some communities on-reserve, waste continues to be dumped on land that was not designed and/or constructed as waste sites according to environmental standards. Clean up of these sites are not eligible for FCSAP funding yet may pose a serious threat to human health and the environment.

### **4.3 Legislation, Regulations and Policy Requirements**

In Canada, there is no federal legislation in place that specifically addresses the identification and remediation of contaminated sites at the federal level including on-reserve land. Provinces and territories have developed their own legislation or guidelines related to the management of contaminated sites within their jurisdiction, or apply those developed by the Canadian Council of Ministers of the Environment (CCME).

INAC is therefore bound by territorial and federal environmental legislation and is obligated to meet regulatory requirements in Canada including:

- Fisheries Act
- Canadian Environmental Protection Act (CEPA)
- Yukon Environmental and Socio-Economic Assessment Act
- Mackenzie Valley Resource Management Act
- NWT/Nunavut Waters Act

Moreover, the Government of Canada is bound to delivery on any obligation contained in land claim agreements that include specific commitments from the government to remediate federal contaminated sites within or nearby the settlement area. In the territories, this includes commitments made under the Yukon Devolution Transfer Agreement and the Nunavut Land Claims Agreement. In the Northwest Territories four land claim agreements have been settled (Inuvialuit Final Agreement, Gwich'in Comprehensive Land Claim Agreement, Sahtu Dene and Métis Comprehensive Land Claim Agreement, T'licho Land Claims and Self-Government Agreement) and three unsettled agreements (Dehcho First Nations, Akaitcho Dene First Nations, and Northwest Territory Métis Nation). As new agreements are being ratified, such as the Tsawwassen Final Agreement in British Columbia, federal obligations related to contaminated sites need to be built into the planning process.

INAC is also bound to meet Treasury Board policy requirements including:

- Policy on Management of Real Property, including the associated Reporting Standard on Real Property
- FCSAP Program criteria requiring all custodians to report annually all required information on its contaminated sites in the Treasury Board Secretariat's Federal Contaminated Sites Inventory (FCSI).

Meeting legislation, regulations and policy requirements for contaminated site clean up is complex. For example all three territories have different regulatory regimes for reviewing and approving contaminated site projects. Moreover, as stated in the recent review of the regulatory systems in the North, "the fact that a large part of the Northwest Territories is still awaiting land claim agreement inevitably leads to complexity and uncertainty in the regulatory regime."<sup>16</sup> Regardless of the complexity, the Department may be held liable for not meeting regulatory and land claim obligations. Further study regarding INAC's compliance with relevant legislation, regulations, and policy as related to contaminated sites clean up is warranted.

Custodial Real Property lands have generally been omitted from the exercise of identifying suspected sites for assessment and remediation. This remains a gap in meeting legal and policy obligations that INAC needs to address. The Corporate Accounting and Material Management Branch is beginning a review of its custodial property inventory and developing a policy and procedures to address contaminated sites on custodial lands.

#### **4.4 Social and Economic Benefits**

*"Cleaning up contaminated sites must provide maximum local benefits and leave a positive legacy in affected areas. Northern communities, especially northern Aboriginal communities, and remote, rural regions of the country stand to benefit from this kind of investment in their region."<sup>17</sup>*

##### *Northern Contaminated Sites Program (NCSP)*

The NAO-NCSP is achieving social and economic benefits through two major streams:

- activities which directly train northern Aboriginal people and other Northerners and which build capacity to benefit from large scale remediation projects, and
- economic development through direct and indirect employment which takes place during all phases of clean-up operations.

The NAO-NCSP has been successful to date regarding the socio-economic benefits that have resulted from the program. The Program tracks these benefits and reports the following economic benefits through the procurement of goods and services to northern Aboriginal and non-Aboriginal businesses, and through the employment of local people.

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<sup>16</sup> Neil McCrank, May 2008, Road to Improvement "The Review of the Regulatory Systems Across the North," p.7.

<sup>17</sup> ECO Canada, 2007, Who Will Do the Cleanup? Canadian Labour Requirements for Remediation and Reclamation of Contaminated Sites, 19.

Table 3: NAO-NCSP Socio-Economic Benefits – FY2004-05 to FY 2007-08

<b>Contracts</b>	<b>Aboriginal</b>	<b>Other*</b>	<b>Total</b>	<b>Aboriginal</b>
Number	15	11	26	58%
Dollar Value	\$143.1M	\$33.1M	\$176.2M	81%
Number of Jobs	339	164	503	67%

\*Other includes non-Aboriginal companies/employees

The NAO-NCSP has developed an Aboriginal Benefits Package (ABP) that is included in all competitive requests for proposals. The successful bidder's proposed Aboriginal Benefits Package becomes a commitment under the resulting contract. Depending on the context of each site, the ABP may include:

- Targeted levels of employment, contracting, training, and/or other participation opportunities in support of named Land Claim Beneficiaries (in a Comprehensive Land Claim Agreement (CLCA) area);
- Targeted levels of identified participation opportunities for a broader Aboriginal/Northern population (in overlapping CLCA areas);
- Targeted levels of participation opportunities for all Aboriginal peoples (in unsettled CLCAs and other procurement activity subject to the PSAB).
- To ensure an appropriate alignment of participation opportunities to the site work, market capacity and participant priorities, the types of opportunities, targeted levels, and weighting of each ABP element in the competitive process are developed by NAO-NCSP, following consultation and/or engagement with local community and Aboriginal government and industry stakeholders.

The ABP supports a market-driven approach, as it has no set targets for Aboriginal benefits, which supports the primary objective of the program to reduce liability and risks to human health and the environment. However laudable these results have been, there have been issues around this strategy for procurement. For example, the Nunavut Tunngavik Incorporated (NTI), the organization that represents the Inuit under the Nunavut Land Claims Agreement (NLCA), opposes the ABP because it does not have mandatory Inuit inclusion. They believe that the ABP does not support Article 24 of the NLCA that states that government shall provide reasonable support and assistance to Inuit firms in order to enable them to compete for government contracts.

Other CLCA in the NWT have also opposed this method of procurement as it does not support the economic provisions in their land claims. The department is aware of these issues and is taking steps to address how best to support procurement policies while maintaining federal government obligations under the CLCAs and supporting economic development and capacity building in the North. The evaluation acknowledges that the procurement of goods and services in the North is complicated as compliance is required simultaneously with trade agreements, Government of Canada's Contracting Policy, CLCAs, and the Procurement Strategy for Aboriginal Business (PSAB).

Under the ABP, training and skills development becomes the responsibility of the successful bidder. NAO-NCSP has not developed a broader training strategy to support skills development in the territories and or provided substantive linkages with existing Aboriginal employment and

training programs such as through the Department of Human Resources and Social Development Canada (HRSDC). Due to the identified shortage of skilled human resource in the North, a northern training strategy that provided transferable skills development and training would support human resource requirements for the clean up of contaminated sites as well as leave a “positive legacy” for qualified skilled workers in other related sectors, such as exploration and mining.<sup>18</sup>

### *Contaminated Sites Management Program*

IIABL-CSMP reports in their annual management plan that contaminated site management projects offer First Nations benefits in terms of work opportunity, skill development and knowledge-based career potential. The clean up of contaminated sites allows for future development of lands which would otherwise be unavailable for use. As much as possible, through FCSAP, the IIABL Contaminated Sites Management Plan supports other government priorities related to Aboriginal training and employment. IIABL Regions and Headquarters sectors actively promote Aboriginal hiring in terms of opportunities to manage contaminated sites. The INAC Aboriginal Procurement Strategy is applicable to contaminated site management projects and provides preferential hiring for firms that qualify.”<sup>19</sup>

The program is not tracking the level of employment or other socio-economic benefits to First Nations. However, the nature of the delivery mechanism, with project funds flowing directly to First Nations and with a 15 % administration fee that is granted to the First Nation for their administration of the projects, is such that First Nations are benefiting directly. File review and interviews support the findings that benefits are accruing, including the use of local equipment and resources.

## **4.5 Unanticipated Results**

The following unanticipated positive results regarding the contaminated sites policy and programming were reported.

- NAO-NCSP has emerged as a leader within the federal government and internationally for its level of expertise regarding project management and remediation in a northern environment.
- Provided a good opportunity for Bands to participate in a meaningful way with INAC.
- Provided an opportunity for INAC to develop good working relationships with First Nations.
- Improved INAC’s reputation through tangible evidence of environmental improvements through clean up activities.
- Positive links to resource development as clean up activities provides industry with confidence that government is committed to managing environmental issues in the long term.

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<sup>18</sup> As an example, the Government of Canada through Aboriginal Skills and Employment Partnership Program at HRSDC, announced in July 2008, \$4.3 million over five years for the Unama’ki Partnership for Prosperity Project. Funding will provide skills and training needs for the Aboriginal construction companies involved in the remediation project at the Sydney Tar Ponds.

<sup>19</sup> INAC, September 2007, Contaminated Sites Management Plan 2007/08-2009/10, Indian and Inuit Affairs Business Line.

- Increased interest and awareness on behalf of communities on-reserve of the need for appropriate fuel handling and tank management procedures.

The evaluation found no unanticipated negative results as a result of the contaminated sites policy and programming.



## 5. Evaluation Findings – Cost-Effectiveness

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The evaluation looked for evidence that the contaminated sites programming at INAC is using the most appropriate and efficient means to achieve outcomes, relative to alternative design and delivery approaches. We would expect to see that INAC was fully leveraging FCSAP for eligible projects, that programming was applying risk management and cost effective practices and that the department was promoting the polluter pay principle. We would expect to see a policy, regulatory regime, and practices and procedures in place to minimize future liabilities to the Crown related to contaminated sites.

Results from the evaluation conclude that NAO-NCSP was able to significantly leverage FCSAP funding, had in place risk management and cost effective practices and to the greatest extent possible was able to apply the polluter pay principle for larger sites, though a procedure for identifying, and pursuing polluters for smaller scale sites is required. Moreover, the Mines Site Reclamation Policy and regulatory regime in the North was, in the opinion of most key informants, providing an adequate level of securities to prevent future liabilities to the Crown.

The evaluation found that the IIABL-CSMP was significantly under-leveraging FCSAP funds and though they had the foundation for risk management and cost effective practices, these practices were not being implemented. There was evidence that the polluter pay principle has been enforced at times, but there was a lack of data that supported to what degree this was occurring. The evaluation found that INAC generally failed to apply the polluter pay principle when the polluter is a First Nation member or band-operated business. Concerns were also raised regarding the lack of regulatory and enforcement tools to stop future contaminated sites from being created on-reserve.

### 5.1 Leveraging FCSAP Funds

“Unless they are managed properly, contaminated sites can negatively impact surrounding water, soil, and air, threatening human health and the environment. They also take valuable land out of productive use and can jeopardize the way of life of those who live off the land.”<sup>20</sup>

From a cost-effectiveness perspective, it is in the best interest of the department to ensure effective management of contaminated sites for which it has custodial responsibility by maximizing the ability to leverage FCSAP funds. Costs are shared annually by FCSAP and custodians on an 80/20 basis (FCSAP/custodian).<sup>21</sup> Table 4 examines the investment of INAC dollars to that leveraged by the two program areas since 2003.

The NAO-NCSP had a high level of leveraging with every one INAC dollar spent; \$4.00 dollars were leveraged from FCSAP.

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<sup>20</sup> OAG, 2008 March Status Report of the Commissioner of the Environment and Sustainable Development.

<sup>21</sup> For remediation and care and maintenance projects, the first \$10 million of FCSAP project costs are shared on an 80/20 basis and on a 90/10 basis for project costs over \$10 million. The costs of certain exceptionally large projects, with total costs in excess of \$90 million, may be eligible for full FCSAP funding.

The IIABL-CSMP consistently under-leveraged FCSAP dollars. With every one INAC dollar spent, only 50 cents were leveraged from FCSAP.

Table 4 – Leveraging of FCSAP dollars by Year and Program (2003-04 to 2007-08)

**NAO-NCSP**

Year	INAC Funds	FCSAP Funds	TOTAL	% FCSAP funds	Ratio of INAC funds to FCSAP Funds
2003/04	22,468,514	39,439,200	61,907,714	63.7%	1 : 2
2004/05	22,000,000	45,331,784	67,331,784	67.3%	1 : 2
2005/06	18,499,924	72,073,651	90,573,575	79.6%	1 : 4
2006/07	18,500,000	92,441,194	110,941,194	83.3%	1 : 5
2007/08	13,510,605	101,703,175	115,213,780	88.3%	1 : 8
<b>TOTAL</b>	<b>94,979,043</b>	<b>350,989,004</b>	<b>445,968,047</b>	<b>78.7%</b>	<b>1 : 4</b>

**IIABL-CSMP**

Year	INAC Funds	FCSAP Funds	TOTAL	% FCSAP funds	Ratio of INAC funds to FCSAP Funds
2003/04	\$5,370,000	\$1,192,300	\$6,562,300	18.2%	1 : 0.2
2004/05	\$9,364,000	\$2,624,767	\$11,988,767	21.9%	1 : 0.3
2005/06	\$10,825,000	\$5,988,709	\$16,813,709	35.6%	1 : 0.6
2006/07	\$10,716,000	\$9,823,774	\$20,539,774	47.8%	1 : 0.9
2007/08	N/A	N/A	N/A	N/A	N/A
<b>TOTAL<sup>22</sup></b>	<b>\$36,275,000</b>	<b>\$19,629,550</b>	<b>\$55,904,550</b>	<b>30.9%</b>	<b>1: 0.5</b>

## 5.2 Application of Risk Management and Cost Effective Practices

### 5.2.1 Northern Contaminated Sites Program

The NAO-NCSP has undertaken a risk-based approach to program management, led centrally at Headquarters and supported by the regions. NAO-NCSP has in place management processes that support risk management and cost-effective practices which include following the guidance of a Corporate Procedures Manual, Costs Estimating Guide, Risk Management Procedures, Results-based Management and Accountability Framework and Corporate Risk Profile.

The evaluation found evidence that:

- Risks associated with the contaminated sites have been identified and assessed by expert consultants and the results are entered into the INAC CSP risk registry.
- Cost-effective practices are taking place through the coordination of site activities to take advantage of work and crew that are already located in remote areas.
- Appropriate use of risk management activities for particular contaminated sites is taking place as a cost-effective mechanism for reducing risk.

NAO-NCSP could further improve cost effectiveness by:

<sup>22</sup> 2007/08 financial data for IIABL-CSMP was not available at the time of the evaluation; therefore, they are not reflected in the totals.

- Putting in place continuous risk and issues management processes to enable the projects to proactively manage the risks that may impact the delivery of the program objectives or to resolve issues expediently.<sup>23</sup>
- Further explore coordination efforts between custodians at nearby sites in order to mitigate some of the challenges of working on northern sites.<sup>24</sup>

Evidence from file and document review supports the finding that cost-effective management practices are in place regarding the management of the two sites having the highest liability to INAC, the Faro Mine and the Giant Mine. INAC has emerged as a leader in the development of methods to cost effectively manage the technical studies leading up to closure plans. INAC is also a leader in the development of methods to involve affected communities in the selection of closure methods. The multi-attribute utility analysis used in the Faro project is an example of an internationally recognized method being applied to such decisions.<sup>25</sup>

As the Faro Mine and the Giant Mine move from assessment into remediation, the department will be faced with increased risks as execution of these large scale projects gets underway. The scale of the remediation efforts, combined with unconventional remediation technologies, harsh climate conditions and a shortage of skilled labour may result in substantial logistical problems and cost overruns.

### *5.2.2 Contaminated Sites Management Program*

The IIABL-CSMP has the foundation for cost-effectiveness mechanisms and practices which can be evidenced through file review and regional interviews. These include competitive process for procurement of consulting and contractor services that assists First Nations with the procurement processes; reliance on engineering estimates; consideration of options for remediation as proposed by consulting engineering firms; and conducting multiple assessments on sites when found in close proximity. However, these cost effectiveness mechanisms and practices are not all implemented. For example, the evaluation found evidence that a number of sites had to be re-assessed because too much time had lapsed since the initial assessment, lack of expedient remediation, and the competitive process for contracts greater than \$25K was not always followed.

## **5.3 Application of Polluter Pay Principle**

There are inherent difficulties in applying the polluter pay principle for the clean up of contaminated sites. In the North, the liabilities associated with contaminated sites typically involve the mining companies that have become insolvent, and on-reserve, the polluter in many instances would be the First Nations themselves.

North of 60°, the department has enforced the polluter pay principle to the extent possible by taking steps to obtain funds from those connected with abandoned mine sites for large scale sites. The Department is making use of insolvency legislation though acknowledges that the legal tools

<sup>23</sup> Interis, INAC Contaminated Sites Program Review (2002-2006), March 31, 2007.

<sup>24</sup> OAG, 2008 March Status Report of the Commissioner of the Environment and Sustainable Development.

<sup>25</sup> R. Anthony Hodge and Lee Merkhofer, February 2008, Faro Mine Closure, Assessing the Alternatives, An Application of Multi-Attribute Utility Analysis, Final Report of the Faro Closure Core Assessment Team.

that the Crown has available to extract a share of the value in an insolvent company are limited. The Department is involved in the insolvencies of Royal Oak Mines (owner of Colomac and Giant mines), Anvil Range Mining (the owner of the Faro mine), United Keno Hill Mines (the owner of the Elsa properties) and FYG National Resources (the owner of Mt. Nansen mine). These five sites comprise the vast majority of INAC's contaminated sites liability in the North. To date, the department has been able to recover funds but these funds do not cover the costs associated with the remediation of the sites. As the program moves into the assessment of a large number of smaller scale sites, a procedure for identifying and pursuing polluters within reason and documenting a departmental decision for each site is required.

On-reserve, INAC generally fails to apply the polluter pay principle when the polluter is a First Nation member or band operated business. Though there is evidence that the polluter pay principle has been enforced, IIABL-CSMP does not systematically collect data to support to what degree this is occurring.

## 5.4 Prevention of Future Liabilities to the Crown

*"It is far less costly to prevent contamination than to manage it later."*<sup>26</sup>

In order to prevent future liabilities to the Crown associated with contaminated sites, appropriate regulatory regimes need to be in place to ensure industrial and commercial activities are carried out in safe, responsible, and sustainable ways. This is especially critical at this time as economic development ramps up both on-reserve and in the North.

There is the general opinion among key informants that in the NWT and Nunavut, the Mines Site Reclamation Policy and associated regulatory regime provide for an adequate level of securities to prevent for future liabilities to the Crown.<sup>27</sup> As an in-depth review of this issue is beyond the scope of this evaluation, further analysis of this issue can be found in the recent report by Neil McCrank on the regulatory system in the north.<sup>28</sup>

On-reserve, large scale commercial and industrial developments are regulated by the First Nations Commercial and Industrial Development Act (FNCIDA) which is intended to provide a balance between economic development and protection of reserve lands and resources. Concerns were raised by the lack of regulatory and enforcement tools related to smaller development. Under the Indian Act, the fine for solid waste issue is a maximum of \$1,500 which is seen to be too low to be a deterrent. The department and First Nation bands are seen as being under-resourced for compliance work to stop future contaminated sites from being created.

As the majority of contaminated sites on-reserve are the result of leaking fuel storage depots, the adherence to Environment Canada's new fuel storage tank systems regulations to ensure that fuel storage systems are designed, built and operated to prevent fuel leaks will contribute significantly to dealing with future contamination.<sup>29</sup> The proper management of waste sites is also a critical issue in the prevention of future contaminated sites.

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<sup>26</sup> 2008 March Status Report of the Commissioner of the Environment and Sustainable Development

<sup>27</sup> As a result of devolution in the Yukon, the Crown is no longer holds liabilities for current mining activities.

<sup>28</sup> Neil McCrank, May 2008, Road to Improvement "The Review of the Regulatory Systems Across the North."

<sup>29</sup> New regulations came into effect on June 12, 2008.

## **6. Evaluation Findings – Design and Delivery**

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The evaluation looked for evidence that the contaminated sites programming at INAC is delivered as designed and that roles and responsibilities are clear. We would expect to find evidence of effective governance structures and accountability and administrative processes. We would expect to find roles and responsibilities clearly defined with no overlap or duplications of responsibilities.

Findings from the evaluation conclude that the decentralized model for delivery is an appropriate program delivery model for both program areas although a strengthened role from Headquarters is required including clarification of roles and responsibilities. Program performance for the IIABL-CSMP has been hampered by a lack of dedicated A-base program funding and senior management support. The evaluation also found evidence of data integrity and efficiency issues related to liability reporting.

### **6.1 Governance Model**

#### *6.1.1 Decentralized Model*

INAC is a highly decentralized federal department, with a presence in every geographical region in Canada. Contaminated sites programming maintains this level of decentralization however findings from the evaluation conclude that an important aspect of successful programming for the management of contaminated sites has been a strong central management system to support regional program implementation. The NAO-NCSP has developed this type of management framework which has proven effective. As the NAO-NCSP moves into remediation work on many of its projects, it is anticipated that further strengthening of the management and technical expertise provided by Headquarters will be required.

Although there are indications that program staff within the IIABL-CSMP are taking steps to advance the contaminated sites agenda, several issues have hampered program performance. These issues include lack of senior management support to build a strong team and to assist in national coordination efforts at strategic times. The IIABL-CSMP has not to date been able to develop a strong centralized management system and as a result the evaluation has observed poor overall national coordination for contaminated sites work planning, and unclear communications with environmental officers in the regions, other sectors within INAC and First Nation bands.

#### *6.1.2 Funding*

No funding issues were reported for the NAO-NCSP as projects were able to access funding as required. The evaluation found that funding from FCSAP was consistently cited as a key factor contributing to the success of the program and one of its primary strengths. Continued funding from FCSAP is considered critical for the future success of the program.

Funding for IIABL-CSMP has on the other hand been a problem. As there is no dedicated source of funds for the program, IIABL-CSMP has to rely on the capital budget for funding for the 20 % it requires to leverage FCSAP funds. Lack of dedicated funding for contaminated sites activities forces regional managers to prioritize clean up activities against infrastructure construction and maintenance. It is well documented that the capital budget has been under considerable pressures for many years which include pressure due to rising construction and fuel costs, increasing operations and maintenance costs, premature rust-out of assets, and infrastructure funding diverted to cover increases in social and education costs.<sup>30</sup> The department's recent cost driver study found that if INAC's funding had kept up with growth in the Aboriginal population and inflation over the last decade, its A-base would be at least \$300M greater.<sup>31</sup>

Despite these difficulties, funding from the capital budget of approximately \$10 million per year has been committed to the program as illustrated in Table 4. As previously stated, IIABL-CSMP has not taken advantage of the leveraging opportunities available through FCSAP with the funding from the Capital budget it receives.

Moreover, because of the misalignment between the federal government budget cycle and the cycle of contaminated site assessments and remediation, regions have had problems with cash managing the FCSAP portion of the project funds (80%) between the time when project approval is granted and when the department receives the funds from FCSAP. FCSAP however allows for multi-year project and fund submissions which would provide funds on April 1 of the project year and eliminate the need to cash manage the FCSAP portion of the project funds. IIABL-CSMP has not taken advantage of this funding mechanism and as a result, delays have been observed and funds have been lapsing in the regions. In addition, some regions were unaware that they could use FCSAP for assessment work for FNLMI Environmental Site Assessment work and were paying for assessments with the Land Environmental Action Fund (LEAF).

### *6.1.3 Roles and Responsibilities*

#### *Northern Contaminated Sites Program*

NAO-NCSP has clearly defined roles and responsibilities and they are generally understood by staff and stakeholders. There was clarity within INAC as well as with other government departments including FCSAP Secretariat, and PWGSC, and the role of Aboriginal people and Northerners. There were two areas found, however, where clarity could be improved:

- Regional offices reported not having a clear understanding of where their role ended and where Headquarters role began. Without clarity around who has the final decision on key decision matters, duplication of efforts was taking place.
- Governance relationship between INAC's Yukon Region, Headquarters and the Yukon Government regarding the clean up of Type II sites need to be further clarified. This clarification can be facilitated through the governance and management issues currently being defined for the Faro Mine closure. INAC's Yukon Region requires more focus to

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<sup>30</sup> Fact Sheet: Capital Facilities and Maintenance Program, INAC Website [www.ainc-inac.gc.ca](http://www.ainc-inac.gc.ca).

<sup>31</sup> INAC, First Nations Basic Services: Cost Drivers Project, 2006.

the assessment and remediation of Type I sites for which it is responsible for under the DTA for which they are behind schedule and lacking management support.

### *Contaminated Sites Management Program*

IIABL-CSMP's roles and responsibilities are documented and generally understood at the operational level within the Program, however, the design of the program requires stronger leadership and communication from Headquarters and improved coordination between CSMP officers and Capital officers in the region.

- Lack of clarity and communication of roles and responsibilities within Headquarters, to the regions, and to First Nations was found.
- Coordination between CSMP and Capital officers in the regions for obtaining funds, ownership of the contaminated sites file, and on responsibilities of Capital with respect to involvement of CSMP were not always clearly understood.
- In some regions, management had little direct knowledge of program operations, progress, liabilities, or obstacles for progress.
- Lack of clarity regarding responsibility for the inventory, assessment and remediation of Indian Affairs Band (IAB) lands, land set aside by notation from the NWT Lands Act.

#### *6.1.4 Consultation*

*“Community and Aboriginal consultation pressures are significant burden on all parties. Defining principles, steps and standards could streamline the processes and lead to substantially improved relationships.”<sup>32</sup>*

Though community and Aboriginal consultation for the assessment and remediation of contaminated sites north of 60° differs to some degree from consultation required for resource development, the issues and complexity of the environment in which consultation takes place remains the same. This includes the mandatory consultation requirements as per settled land claims agreements, applying best practices in unsettled land claim areas, and considerations to statutory obligations as part of the regulatory process.

A significant level of consultation was undertaken by NAO-NCSP as a matter of policy rather than legal “duty to consult” considerations. As the Government of Canada moves ahead with implementing the action plan to address the legal duty of federal departments and agencies to properly consult with First Nation, Métis and Inuit groups, NAO-NCSP should consider its involvement in this process, not only to provide best practice (i.e. consultation related to decision making and consensus building regarding the Faro Mine closure options) but also to ensure compliance with the guidelines.<sup>33</sup>

The delivery model of contaminated sites programming in which First Nations manage project delivery under IIABL-CSMP has consultation elements embedded in the process. Capital or CSMP officers (depending on the region) communicate with First Nation Band councils or First Nation representatives and once agreement has been reached on the work that will occur, the

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<sup>32</sup> Neil McCrank, May 2008, Road to Improvement “The Review of the Regulatory Systems across the North,” p.20.

<sup>33</sup> Government of Canada, February 2008, Aboriginal Consultation and Accommodation - Interim Guidelines for Federal Officials to Fulfill the Legal Duty to Consult.

funds are added to the next amendment of the Band's Comprehensive Funding Arrangements. The Bands therefore have control over their contaminated sites projects from conception to execution.

## 6.2 Human Resources

The shortage of human resources, both internal to the Department and external contractors, is a critical issue for both programming areas. Human and knowledge capital was found to be one of the top three risks to the NAO-NCSP that extended across all regions and objectives and drives other risks to the program as reported in their risk profile. As stated in the risk profile, the Program has positions that remain vacant for long periods, high turnover, and staff who are appointed to positions with management responsibility for the first time.<sup>34</sup> Also included in the top three risks to program was contracting, with the risk driven by excess of demand over capacity resulting from a renewed and expanded mining industry.

These findings are in line with the recent report from *ECO Canada* which states that the Canadian environmental industries sector lacks sufficient capacity to support the growing waste management and environmental remediation sectors.

*Between 2004 and 2019, the federal government has committed up to \$4 billion to clean up properties that it owns or that fall under federal responsibility. This includes more than 4,400 federal contaminated sites as well as 28,000 non federal properties... The study shows that the contaminated sites sector is experiencing a labour shortage. For employers, the shortage manifests itself as difficulty in hiring and retaining employees.*<sup>35</sup>

The same human resourcing issues apply to the IIABL-CSMP through to a lesser extent than in the North. Because regional offices are not as remote as northern offices, it is easier to retain qualified staff. Moreover, First Nations are managing the projects directly and the sites themselves are not as technically difficult to clean up thus requiring less specialized expertise from external consultants. However, for clean up activities in remote locations, securing contractors remains an ongoing issue.

## 6.3 Data Integrity

There are several major systems that contain information about contaminated sites, including liability information, as follows:

- *ESSIMS* – maintained by IIABL for the CSMP. Plans are currently underway to combine the databases for both NAO-NCSP and IIABL-CSMP into one database using *ESSIMS*. *ESSIMS* feeds information to *FCSI*. It is a stand alone system and does not interface with the departmental financial accounting system, *OASIS*.

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<sup>34</sup> INAC, December 2007, Corporate Risk Profile for the Contaminated Sites Program of Indian and Northern Affairs Canada, Draft.

<sup>35</sup> *ECO Canada*, 2008, When Supply Does Not Meet Demand: Labour Gaps and Issues in Canada's Contaminated Sites Sector and *Eco Canada*, 2007, Who will do the Cleanup? Canadian Labour Requirements for Remediation and Reclamation of Contaminated Sites.



- *NCSP National Contaminated Sites Database* – maintained by NAO for the CSP. It is a stand alone system and does not interface with the departmental financial accounting system, OASIS
- *FCSI* – maintained by TBS. It is the federal government’s Federal Contaminated Sites Inventory, a centralized database containing information on contaminated sites for all departments. It is updated annually by departments through an electronic download from the departmental systems.
- *IDEA* – maintained by Environment Canada. It houses funding applications from departments for FCSAP funds. Sites for which an application for FCSAP funding is submitted in IDEA must already be in the FCSI in order for Environment Canada to give the funding submission further consideration. IDEA is a stand alone system and does not interface with other departmental systems.
- *OASIS* – INAC’s financial accounting system.

The integrity of the data contained in the databases of contaminated sites and the integrity of the data used for reporting information related to contaminated sites have a direct impact on the liability amounts reported. The quality of the data collected and maintained not only can affect the quality of the liability amount reported, it can also affect the quality of reporting on performance, management decision making and overall delivery of the program.

#### *Northern Contaminated Sites Program*

The *NCSP Corporate Procedures Manual* sets out the policies and procedures for reporting costs and liabilities related to contaminated sites. Regional project managers are responsible for reporting information on costs and liabilities related to their projects each quarter in Quarterly Reports and in annual site Detailed Work Plans. The information is submitted to Regional Directors and then forwarded to the Director, CSP at Headquarters. Information in these reports, and in particular the Detailed Work Plans, is used by Headquarters as the basis for reporting information on costs and liabilities related to contaminated sites for NAO. Headquarters uses the information provided by the regions to update the NAO-NCSP national inventory database for any changes in the costs and liabilities reported. The information is also used for:

- recording liabilities in the departmental financial accounting system (OASIS);
- making disclosures in the departmental financial statements;
- updating the information contained in the Federal Contaminated Sites Inventory (FCSI) maintained by TBS through an electronic download from INAC’s ESSIMS database; and
- preparing annual information packages for INAC’s Finance Branch that get submitted to the Receiver General for inclusion in the Public Accounts of Canada.

NAO-NCSP also has prepared a Cost Estimating Guide to guide project managers and staff in the procedures to be followed for developing cost estimates. At year-end, a review of the amounts to be reported on the annual Cost and Liabilities report is conducted at Headquarters to help ensure amounts are complete, cost estimates are reasonable and reporting complies with policy requirements. For the past three years, NAO-NCSP has hired a professional accountant to assist with the review of the major sites and sites reporting unusual changes. NAO-NCSP is planning on continuing to do this in the future to provide assurance on the integrity of the liability estimates that are reported.

In summary, several steps are taken by the Program to ensure integrity over the cost and liability data. The strengths include well documented procedures (e.g. accounting and reporting requirements and cost estimating guidelines) and an annual review of amounts reported at year-end for compliance with accounting and policy requirements. However, notwithstanding the steps taken by Headquarters for ensuring integrity of data, Headquarters relies on the information provided by the Regions. There is no assurance that controls are in place in the regions to ensure the existence of a sufficient and appropriate documentation to support the information provided to Headquarters. Therefore, there is a potential for the information to be incomplete or inaccurate, or for a lack of audit trail to support the information being reported. The audit trail becomes increasingly important in the event of staff turnover or as support for the annual year-end financial statement audits carried out by the OAG for the Public Accounts of Canada or the soon to be implemented audited departmental financial statements.

### *Contaminated Sites Management Program*

The Contaminated Sites Management Program – Program Guide, prepared in 2006, provides guidance and established procedures concerning the management of contaminated sites, both at the site level and the program level. The topics covered in the Guide include financial reporting requirements, information and data management through ESSIMS, roles and responsibilities, and guidance on reporting costs and liabilities. The Guide provides a foundation of documented procedures for the overall Program. Data related to contaminated sites for the CSMP is maintained in the Environmental Stewardship Strategy Information Management System (ESSIMS) database.

Reporting from ESSIMS is facilitated through the use of Crystal Enterprise reports. Crystal Enterprise is a web-based report management and delivery package that integrates seamlessly with the ESSIMS database. The Environment Directorate at Headquarters has overall responsibility for the maintenance of ESSIMS. However, Regions are responsible for collecting and maintaining data on contaminated sites in ESSIMS or through systems harmonized with ESSIMS. The Environment Directorate at Headquarters is also responsible for administering and managing the IIABL Contaminated Sites Management Program and preparing program plans and reports based on information found in ESSIMS. To accomplish this, the Environment Directorate relies heavily on the Regions for ensuring the integrity of the data contained in ESSIMS.

During the course of the Evaluation, a number of matters came to our attention concerning the completeness and accuracy of data contained in ESSIMS and information reported from the system, such as in the Cost and Liabilities Report prepared at year-end and information downloaded to the Federal Contaminated Sites Inventory (FCSI) maintained by TBS . They are summarized below.

#### *Inaccuracies in ESSIMS*

- A site covered by an Environmental Site Assessment (ESA) report was not reported as a liability although an estimate for clean-up was provided in the ESA
- A site was recorded twice in ESSIMS

- Some sites covered by an ESA were not recorded in ESSIMS
- Some anomalies were noted by Regional staff that may relate to old or outdated data in ESSIMS

#### *Lack of Supporting Documentation*

- For several sites reviewed in one Region there was a lack of documentation to support how the liability estimate was determined

#### *Inaccuracies in the Annual Cost and Liabilities Report*

- Errors were found in the calculation of the liability amount reported in the IIABL 2007/08 Cost and Liabilities Report. It appears that the program used to produce the Crystal Report that provides input into the Cost and Liability report and it did not pick up one of the fields that is used for calculating the liability for the site at year-end. Furthermore, procedures were not in place to prevent or detect the error before the report was formally submitted to central agencies.

#### *Completeness and Accuracy of Information Reported in the Federal Contaminated Sites Inventory (FCSI)*

- The 2006/07 update to FCSI revealed completeness and accuracy issues, which TBS is still working with IIABL to resolve.
- The 2007/08 update to FCSI was supposed to have been completed in April 2008. It still had not been completed as of June 2008.
- Timing differences between the date when information is required to be reported in FCSI and when actual information is received from the First Nations (annual reporting for Grants and Contribution is 90 days after year-end, which is more than 2 months after the FCSI reporting deadline) gives rise to gaps in information and inaccuracies in FCSI.
- Since 2005/06 TBS has requested that departments certify the information in the FCSI on an annual basis. TBS reports that they have never received a certification from IIABL.

#### *The Basis for Determining Liability Estimates*

During regional visits, discussions with staff revealed a lack of knowledge and understanding concerning the basis for determining liability estimates. It appears that the eligibility for FCSAP funding may be what is driving the timing and determination of liability estimates, rather than the TBS *Policy on Accounting for Costs and Liabilities Related to Contaminated Sites*. As a result, liabilities may be going unreported for sites currently not receiving FCSAP funding.

#### *Consistency and Efficiency among Information Systems*

With the existence of the many systems involved in the management and reporting of information related to contaminated sites and different cut-off dates applied to reporting for each system, there is a high risk of information not being consistent among systems. For example, ESSIMS and IDEA are not harmonized. Therefore, for sites that receive FCSAP funding, information must be entered in each system separately, giving rise to duplication of effort and the potential for data to be entered in one system but not the other. Since IDEA is the system that

matters for receiving funding under FCSAP, there is a tendency for Regions to update IDEA before updating INAC's own database in ESSIMS.

ESSIMS and OASIS also are not harmonized. IIABL uses the expenditure information recorded in ESSIMS to calculate the liability in the annual Cost and Liability Report. If the expenditures are not up to date in ESSIMS or in agreement with what has been recorded in OASIS, then departmental accounting records will not be consistent with the reporting on liabilities and the liability calculation may be incorrect. In addition, a considerable amount of data manipulation is required from ESSIMS in order to produce information on liabilities. This includes data extraction into Crystal reports, and sometimes further data extraction into Excel spreadsheets.

An audit or detailed review would need to be done on the information among the systems to be able to conclude or provide assurance on the accuracy and consistency of data on contaminated sites and liabilities related to contaminated sites among the different systems. Finally, in the course of analyzing the Program's performance with regard to liability reduction it was noted that certain historical data was not available from ESSIMS to allow a complete analysis using certain indicators. For example, part of the analysis involved reviewing the number of sites and liability associated with sites at different stages in the 10-process over a number of years. However, only the current year information was available from ESSIMS. The lack of historical data in the database makes it difficult to track and monitor progress and performance over time.

# 7. Conclusions and Recommendations

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## 7.1 Conclusions

The evaluation supports the following conclusions regarding relevance, success, cost-effectiveness and design and delivery.

### 7.1.1 *Relevance*

INAC's contaminated sites policy and programming remain highly relevant to both the department and the broader federal program, FCSAP. They are linked to key departmental strategies involving the North, environmental protection, land management, economic development, and consultation. Moreover, though progress has been made in addressing the risks that contaminated sites pose to human health and the environment, the vast majority of sites, including two major priority sites in the north, the Faro Mine in the Yukon and Giant Mine in NWT, have not yet moved into the remediation stage, thus signalling a strong continued need for the contaminated sites policy and programming at INAC.

### 7.1.2 *Success*

INAC will not meet FCSAP's 2020 target of eliminating known liability related to contaminated sites and that the financial liabilities for the department have in fact increased 73% in the past four years. The expenditures being made on assessment and remediation activities have however contributed to creating more certainty in the liability amount reported. As sites begin to move through the remediation stage, the liability is expected to start decreasing though no noticeable reduction in the overall departmental liability is likely in the short term. NAO-NCSP is on target to remediate all of its Class 1 sites by 2027 though liability will never be fully eliminated due to the need to continue long-term care and maintenance on a number of sites including the Giant and Faro Mines. The IIABL-CSMP, due to the large amount of suspected sites still needing to be assessed, will need to redefine its targets in order to meet FCSAP's objectives.

The evaluation found evidence that social and economic benefits are being accrued to Aboriginal people and Northerners and that the programming is creating confidence among stakeholders that the federal government is taking responsibility for the long-term management of federal contaminated sites and is putting in place measures to protect the future. The evaluation also concluded that, because of the complexity of legislation, regulations and policy requirements related to contaminated site clean up, further study regarding INAC compliance to these regulations is warranted, particularly in the area of obligations stemming from comprehensive land claim agreements.

### *7.1.3 Cost Effectiveness:*

Results from the evaluation conclude that NAO-NCSP was able to significantly leverage FCSAP funding, had in place risk management and cost effective practices and to the greatest extent possible was able to apply the polluter pay principle for larger sites, though a procedure for identifying, and pursuing polluters for smaller scale sites is required. Moreover, the Mines Site Reclamation Policy and regulatory regime in the North was, in the opinion of most key informants, providing an adequate level of securities to prevent future liabilities to the Crown.

The evaluation found that the IIABL-CSMP was significantly under-leveraging FCSAP funds and though they had the foundation for risk management and cost effective practices, these practices were not being implemented. There was evidence that the polluter pay principle has been enforced at times, but there was a lack of data that supported to what degree this was occurring. The evaluation found that INAC generally failed to apply the polluter pay principle when the polluter is a First Nation member or band-operated business. Concerns were also raised regarding the lack of regulatory and enforcement tools to stop future contaminated sites from being created on-reserve.

### *7.1.4 Design and Delivery*

The decentralized model for delivery is an appropriate program delivery model for both program areas although a strengthened role from Headquarters is required including clarification of roles and responsibilities. Program performance for the IIABL- CSMP has been hampered by a lack of dedicated A-base program funding and senior management support. The evaluation also found evidence of data integrity and efficiency issues related to liability reporting.

## **7.2 Recommendations**

It is recommended that INAC:

1. Provide comprehensive and strategic input to the FCSAP Secretariat for the FCSAP 2010 renewal process to ensure INAC needs are represented, best practices are put forward, and that departmental programming and policy continues to support and be consistent with this initiative.
2. Develop a comprehensive human resources strategy for program delivery that address human resourcing issues, both within and external to the department, including the development of a training strategy that promotes Aboriginal training and skills development.
3. Conduct a program management review for IIABL-CSMP prior to program renewal in order to improve overall program performance and management. The review will include developing annual targets for assessment and remediation and management practices to achieve targets. NAO-NSCP best practices will be leveraged.

4. Further strengthen the management and technical expertise provided by Headquarters for the NAO-NCSP to respond to human resourcing issues and increased risk associated with large scale remediation efforts.
5. Consider creating a new funding authority that provides dedicated funding to support departmental contaminated sites policy and programming. This funding authority would facilitate the achievements of targets and the leveraging of FCSAP funds for both IIABL-CSMP and NAO-NCSP and consider the requirements of contaminated sites found on custodial operational real property assets.
6. Enhance the intradepartmental linkages contaminated sites programming has with key departmental strategies, including linkages regarding environmental protection, land management, economic development, consultation, and contracting. This includes:
  - Effective linkages with FNLMI.
  - Undertaking further study to ensure compliance with legislation, regulations and policy requirements related to contaminated site clean up, particularly in the area of obligations stemming from comprehensive land claim agreements.
  - Finding mechanisms to ensure the clean up of contaminated sites that are not eligible for FCSAP funding, such as waste sites that have remained active after 1998, and
  - Ensuring steps are taken for the prevention of future liabilities to the Crown as a result of the creation of new contaminated sites on lands under departmental custodial responsibility.

# **Management Response and Action Plan**

Evaluation of INAC's Contaminated Sites Management Policy and Programming: Program Project: 07011  
Sectors: Northern Affairs, Lands and Economic Development, Chief Financial Officer, Regional Operations<sup>36</sup>

## **Recommendation 1:**

<b>Recommendations</b>	<b>Actions</b>	<b>Responsible Managers</b>	<b>Planned Implementation Date</b>
<p>Provide comprehensive and strategic input to the FCSAP Secretariat for the FCSAP 2010 renewal process to ensure INAC needs are represented, best practices are put forward, and that departmental programming and policy continues to support and be consistent with this initiative.</p>	<p>NAO-NCSP continues to participate in CSMWG meetings and provides input into the MC renewal process. NAO-NCSP has met with EC in June and will be meeting with PCO and EC in September to discuss the MC and the Faro annex to the MC.</p>	<p>Director General, Natural Resources and Environment and Director, NCSP</p>	<p>Currently underway</p>
	<p>IIABL-CSMP met with EC on September 3, 2008 to provide input into the FCSAP evaluation process, and is continuing the dialogue. IIABL-CSMP continues to participate in CSMWG meetings and will also continue to provide input directly to FCSAP Secretariat as required to support the renewal process.</p>	<p>Director General, Lands, and Director, Environment Directorate (ED)</p>	<p>Currently underway</p>
	<p>The Chief Financial Officer Sector will contribute to the development of the department's input into FCSAP as required for the management of any eligible department-owned contaminated sites.</p> <p>The department will coordinate input into FCSAP to ensure consistency of INAC's response.</p>	<p>Director General, Corporate Accounting and Materiel Management Branch</p>	<p>As appropriate</p>

<sup>36</sup> The newly created Regional Operations Sector will be consulted on all actions stemming from the recommendations



**Recommendation 2:**

Recommendations	Actions	Responsible Manager	Planned Implementation Date
<p>Develop a comprehensive human resources strategy for program delivery that address human resourcing issues, both within and external to the department, including the development of a training strategy that promotes Aboriginal training and skills development.</p>	<p>Human Resources has been identified as a strategic risk through the NAO-NCSP IRM process and a mitigation plan has been developed which will be implemented. As part of this process the NAO-NCSP will be consolidating the HR strategy between the regions and HQ, as well as PWGSC.</p>	<p>Director General, Natural Resources and Environment and Director, NCSP</p>	<p>Currently underway</p>
	<p>NAO-NCSP has committed to provide up to 2% of project costs to implement training and skills development, through the ABP.</p>		
	<p>The NAO-NCSP will also be developing regional socio-economic strategies to compliment the contaminated sites procurement policy, in consultation with aboriginal groups and HRSDC, as identified in the program review completed in 2007.</p>		
	<p>IIABL-CSMP will monitor regional delivery to ensure adequate human resources are in place for regional delivery. This will be done in the context of the review of management practices for CSMP (see Recommendation 3).</p>	<p>Director General, Lands, and Director, ED; Director General, Operations and Planning Support Branch</p>	<p>CSMP Review to be launched January 2009</p>
	<p>Regional capacity to support the management of custodial contaminated sites is uncertain and will be assessed by the end of the current fiscal year. Training to enable the fulfillment of regional custodial contaminated site management responsibilities will be arranged as required (through the Canada School of Public Service).</p>	<p>Director General, Corporate Accounting and Materiel Management Branch</p>	<p>April, 2009</p>

**Recommendation 3:**

<b>Recommendations</b>	<b>Actions</b>	<b>Responsible Manager</b>	<b>Planned Implementation Date</b>
<p>Conduct a program management review for IIABL-CSMP prior to program renewal in order to improve overall program performance and management. The review will include developing annual targets for assessment and remediation and management practices to achieve targets. NAO-NSCP best practices will be leveraged.</p>	<p>NAO-NCSP will ensure best practices are shared, as required. IIABL-CSMP will be invited to the semi-annual NAO-NCSP program meetings to ensure sharing of best practices.</p> <p>IIABL-CSMP will conduct a review of management practices. A Program Review Framework was developed March 31, 2008 for this purpose. The framework will now be refined to reflect the results of the evaluation and the work on development of performance indicators led by FCSAP.</p> <p>The management review will focus on:</p> <ol style="list-style-type: none"> <li>1. establishing the necessary structures and procedures in order to achieve program objectives and improve program delivery</li> <li>2. adapting FCSAP annual CSMP-specific targets for assessment and remediation with the aim that all FCSAP eligible sites will be remediated by 2020</li> <li>3. human resource requirements and effective monitoring and reporting systems, nationally and regionally</li> <li>4. a planning regime that allows CSMP to maximize leveraging of FCSAP's funding and includes early project submission processes to have funds available on April 1 of the project year</li> <li>5. ensuring all relevant interdepartmental linkages are in place.</li> </ol> <p>IIABL-CSMP will participate in NAO-NCSP semi-annual program meetings.</p>	<p>Director General, Natural Resources and Environment and Director, NCSP</p> <p>Director General, Lands, and Director, ED</p>	<p>November, 2008</p> <p>CSMP Review to be launched January 2009</p>

**Recommendation 4:**

Recommendations	Actions	Responsible Manager	Planned Implementation Date
Further strengthen the management and technical expertise provided by Headquarters for the NAO-NCSP to respond to human resourcing issues and increased risk associated with large scale remediation efforts.	NAO-NCSP has developed a Human Resource strategic plan and will actively work on staffing vacant positions, such as attending university career fairs to recruit post-secondary graduates. Currently staffing actions are in progress for generic PC-03 and -04 positions with colleague directors. A consultant acting as senior advisor has been hired to work with HQ and the regions to identify areas where project estimates can be revised and make appropriate changes to planning documentation and the financial system. A consultant has started a budget/forecast planning and change control process review and will revise/develop processes and tools as needed.	Director General, Natural Resources and Environment and Director, NCSP	Currently underway

**Recommendation 5:**

Recommendations	Actions	Responsible Manager	Planned Implementation Date
Consider creating a new funding authority that provides dedicated funding to support departmental contaminated sites policy and programming. This funding authority would facilitate the achievements of targets and the leveraging of FCSAP funds for both IIABL-CSMP and NAO-NCSP and consider the requirements of contaminated sites found on custodial operational real property assets.	NAO-NCSP and IIABL-CSMP will work with the Chief Financial Officer Sector and Regional Operations Sector, as well as other areas of Northern Affairs Office (NAO) and Lands and Economic Development Sector (LED) to determine; whether the CFMP (Capital Facilities Maintenance Program) is still a viable source of funding or; whether there is a need for a dedicated and/or enlarged source of funding and, if so; identify options for and evaluate the merits of creating a new funding authority. The IIABL-CSMP review of management practices (see Recommendation 3) will support this process as it will focus on: - a planning regime that allows CSMP to maximize leveraging of FCSAP's funding; and -ensuring all relevant intradepartmental and interdepartmental linkages are in place.  Discussions on this issue have been	Director General, Natural Resources and Environment and Director, NCSP  Director General, Lands, and Director, ED  Director General, Corporate Accounting and Materiel Management Branch  Director General, Operations and Planning Support Branch	November, 2008

	initiated with NAO-NCSP (October 30, 2008) and Community Infrastructure Branch (November 3, 2008)		
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**Recommendation 6:**

Recommendations	Actions	Responsible Manager	Planned Implementation Date
<p>Enhance the intradepartmental linkages contaminated sites programming has with key departmental strategies, including linkages regarding environmental protection, land management, economic development, consultation, and contracting. This includes:</p> <ul style="list-style-type: none"> <li>-Effective linkages with FNLMI.</li> <li>-Undertaking further study to ensure compliance with legislation, regulations and policy requirements related to contaminated site clean up, particularly in the area of obligations stemming from comprehensive land claim agreements.</li> <li>-Finding mechanisms to ensure the clean up of contaminated sites that are not eligible for FCSAP funding, such as waste sites that have remained active after 1998, and</li> <li>-Ensuring steps are taken for the prevention of future liabilities to the Crown as a result of the creation of new contaminated sites on lands under departmental custodial responsibility.</li> </ul>	<p>NAO-NCSP will organize intradepartmental meetings to ensure linkages are created, or maintained, as necessary as related to the NCSP.</p> <p>The NAO-NCSP has implemented a comprehensive auditing procedure to ensure compliance with relevant legislation, regulation and/or policy requirements. NAO-NCSP is working with the INAC implementation branch, legal, PWGSC and others to review procurement within land claims. NAO-NCSP provides expert advice on remediation costs to INAC departments responsible for providing input into regulatory approvals to ensure the prevention of future liabilities.</p> <p>IIABL-CSMP will organize intradepartmental meetings to ensure linkages are created, or maintained, as necessary as related to the CSMP. This will be done in the context of the review of management practices for CSMP (see Recommendation 3). This meeting will involve the Lands and Economic Development Sector, Regional Operations Sector and Education and Social Development Programs and Partnerships Sector and NAO to review ways in which future liabilities to the Crown as a result of the creation of new contaminated sites on reserve land can be addressed.</p> <p>As part of this process, IIABL held a national training session and workshop on the new federal fuel storage tanks regulations in September, 2008 and has recently established a national working group on solid waste disposal sites. A training workshop is also planned for the Contaminated Sites Management Program for February 2009 to maintain</p>	<p>Director General, Natural Resources and Environment and Director, NCSP</p> <p>Director General, Lands, and Director, ED</p>	<p>January 2009</p> <p>Currently underway</p> <p>January 2009</p>

	<p>a common understanding on the procedures/rules, administrative requirements, and legal implications.</p> <p>IIABL-CSMP will develop a business case to fund sites that have emerged after 1998, to be presented to FCSAP for consideration.</p> <p>The Chief Financial Officer Sector will release an updated departmental policy for Real Property Management by the end of the current fiscal year. Updated policy requirements for real property management will minimize the creation of any new custodial contaminated sites.</p> <p>Additionally, department-owned fuel storage tanks will be managed in compliance with recently-updated requirements under the Canadian Environmental Protection Act (CEPA). The sound management of custodial fuel storage tanks is expected to further minimize the risk of contamination due to departmental operations.</p>	<p>Director General, Corporate Accounting and Materiel Management Branch</p> <p>Director General, Corporate Accounting and Materiel Management Branch</p>	<p>April, 2009</p> <p>Ongoing and June 2012</p>
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## **National Classification System for Contaminated Sites (NCSCS)<sup>37</sup>**

The NCSCS is a tool to aid in the evaluation of contaminated sites. Its purpose is to provide scientific and technical assistance in the identification and prioritization of sites, which may be considered to represent high, medium, or low risk. The system classifies contaminated sites into these general categories of risk in a systematic and rational manner, according to their current or potential adverse impact on human health and/or the environment.

Sites must be classified on their individual characteristics in order to determine the appropriate classification (Class 1, 2, 3, or N) according to their priority for action, or Class INS (for sites that require further information before they can be classified). The term 'action' does not necessarily refer to remediation, but could also include risk assessment, risk management or further site characterization and data collection. The classification groupings are as follows:

### Class 1: High Priority for Action

The available information indicates that action (*e.g.*, further site characterization, risk management, remediation, etc.) is required to address existing concerns. Typically, Class 1 sites show a propensity to high concern for several factors, and measured or observed impacts have been documented.

### Class 2: Medium Priority for Action

The available information indicates that there is high potential for adverse impacts, although the threat to human health and the environment is generally not imminent. Typically, for Class 2 there is no direct indication of off-site contamination; however, the potential for off-site migration tends to be rated high and therefore some action is likely required.

### Class 3: Low Priority for Action

The available information indicates that the Site is currently not a high concern. However, additional investigation may be carried out to confirm the site classification.

### Class N: Not a Priority for Action

The available information indicates there is likely no significant environmental impact or human health threats. There is likely no need for action unless new information becomes available indicating greater concerns, in which case, the Site should be re-examined.

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<sup>37</sup> CCME. 2008. National Classification System for Contaminated Sites: Guidance Document. Canadian Council of Ministers of the Environment, Winnipeg.

## Class INS: Insufficient Information

Although a minimum of a Phase I Environmental Site Assessment has been conducted for the site, there appears to be insufficient information to classify the Site. In this event, additional information is required to address data gaps.

### **Steps for Addressing a Contaminated Site**

In 1999, the Contaminated Sites Management Working Group came forward with an Approach Paper<sup>38</sup> which currently serves as a proactive management tool to assist in the characterization, classification and prioritization contaminated sites as well as to ensure environmental site management initiatives are implemented in a timely and cost-effective manner. Included in this Approach is a 10-step process known as the *Steps for Addressing a Contaminated Site*. These steps identify scientific tools and documents that are available for use in the management of federal contaminated sites. In brief,

**Step 1 — Identify Suspect Sites:** Identifies potentially contaminated sites based on activities (past or current) on or near the site.

**Step 2 — Historical Review:** Assembles and reviews all historical information pertaining to the site.

**Step 3 — Initial Testing Program:** Provides a preliminary characterization of contamination and site conditions.

**Step 4 — Classify Contaminated Site Using the CCME NCS:** Prioritizes the site for future investigations and/or remediation/risk management actions.

**Step 5 — Detailed Testing Program:** Focuses on specific areas of concern identified in Step 3 and provides further in-depth investigations and analysis.

**Step 6 — Reclassify the Site Using the CCME National Classification System:** Updates the ranking based on the results of the detailed investigations.

**Step 7 — Develop Remediation/Risk Management Strategy:** Develops a site-specific plan to address contamination issues.

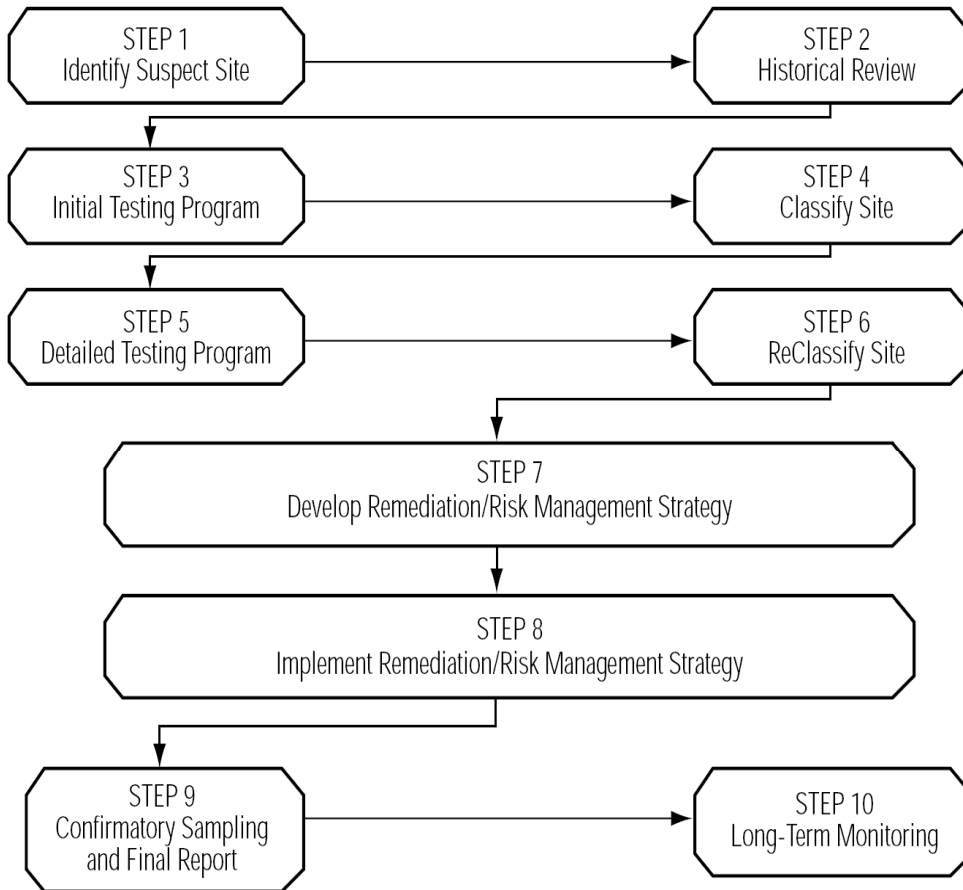
**Step 8 — Implement Remediation/Risk Management Strategy:** Implements the site-specific plan that addresses contamination issues.

**Step 9 — Confirmatory Sampling and Final Reporting:** Verifies and documents the success of the remediation/risk management strategy.

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<sup>38</sup> Contaminated Sites Management Working Group. *A Federal Approach to Contaminated Sites*, 1999.

**Step 10 — Long-Term Monitoring:** If required, ensures remediation and long-term risk management goals are achieved.



NOTE: The steps shown above illustrate the complete process involved in dealing with contaminated sites. There will be instances where some of the steps may not be required.