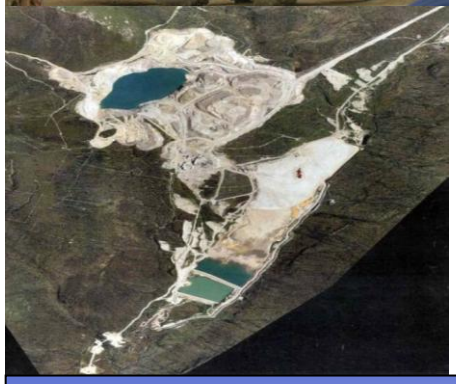
Indian and Northern Affairs Canada



Northern Affairs Organization
Contaminated Sites Program

PERFORMANCE REPORT

2008 – 2009

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1 INTRODUCTION

Management Statement

I am pleased to present the Northern Contaminated Sites eighth annual Performance Report for the 2008-09 fiscal year. The report provides a summary of the results achieved by Indian and Northern Affairs Canada, Northern Affairs Organization in the management of contaminated sites in the North.

INAC is the custodian of most federal lands in the North, and is committed to managing a number of contaminated properties through its Northern Contaminated Sites Program (NCSP). Specifically INAC is responsible for contaminated sites located on reserve lands, on federal lands north of the 60th parallel and on any other lands under INAC's custodial responsibility.

The scope of the NCSP includes three regions – the Yukon, Northwest Territories (NWT) and Nunavut as well as Headquarters (HQ). The regions are primarily responsible for implementing the NCSP whereas HQ provides program management support, sets policy direction and provides operational support to the regions. Numerous committees have been created to provide strategic direction to the program and to ensure consistent application of the INAC Contaminated Sites Management Policy.

The NCSP continues to progress towards its goal of remediating and assessing contaminated sites. In 2008-09, remediation was completed at five sites bringing the total number of completed sites to 13. In addition, the NCSP is working to achieve its goal of assessing all suspected contaminated sites by 2012. Of the 1971, sites in the NAP database, 1243, (63%) have been assessed since the inception of the Program. In 2008-09, the Program was able to assess 132 suspected sites. In 2008-09, the NCSP spent $85,985,688.

The NCSP has continued to improve on its program management. In 2008-09, a review of the NCSP's financial planning, allocation and management processes was conducted to identify areas where the Program could improve the predictability of financial forecasts and results. In addition, the NCSP participated in two audits; one led by the Federal Contaminated Sites Action Plan, and one undertaken internally by INAC. In 2008-09, the NCSP has implemented most of the recommendations made as a result of these audits with the remainder to be implemented in 2009-10.

The success of the NCSP is due to the continued hard work and dedication of our employees and partners and I would like to thank them for their effort in managing northern contaminated sites for INAC.

I invite you to read the NCSP 2008-09 annual report to develop a greater understanding of the NCSP and its progress, and I invite any comments or feedback on the contents of this report.

Sincerely,

Patrick Borbey
Assistant Deputy Minister
Northern Affairs Organization, Indian and Northern Affairs Canada

Report Coverage

This is the eighth annual performance report for Indian and Northern Affairs Canada's (INAC) Northern Contaminated Sites Program (NCSP). INAC's Northern Affairs Organization (NAO) has been managing northern federal contaminated sites under the NCSP since 1991 and the purpose of this report is to present NAO's performance relative to the NCSP objectives for the period of April 1, 2008 to March 31, 2009. This report outlines activities related to the overarching Program objectives and also provides regional performance information. A glossary of acronyms is included in Appendix 1. Please see our website for additional information on NCSP activities and for previous annual performance reports (http://www.ainc-inac.gc.ca/nth/ct/ncsp).

Profile of the NAO Northern Contaminated Sites Program (NCSP)

INAC is the custodian of most federal lands in the North and is committed to managing a number of contaminated properties through its Northern Contaminated Sites Program (NCSP). INAC is responsible for contaminated sites located on reserve lands, on federal lands north of the 60th parallel and on any other lands under INAC's custodial responsibility. In 2002, INAC developed a Contaminated Sites Management Policy to ensure that addressing contaminated sites would proceed in a socially, fiscally and environmentally responsible manner. Through the implementation of this policy, INAC states that it will "contribute to a safer, healthier, sustainable environment for First Nations, Inuit, and Northerners by striving to preserve and enhance the ecological integrity of the environment". The NCSP is guided by the following strategic objectives:

1. To meet federal legal obligations;
2. To assess potential contaminated sites and accurately report on the liability associated with the site to the Crown;
3. To remediate all National Classification System (NCS) Class 1 contaminated sites in the North on a priority basis;
4. To promote social and economic benefits that may accrue to First Nations, Inuit and Northerners;
5. To promote the federal "polluter pay" principle; and
6. Implement a consistent, cost-effective and accountable program.

The Deputy Minister of INAC and the Assistant Deputy Minister of the NAO are responsible for the NCSP. The scope of the NCSP includes three regions – the Yukon, Northwest Territories (NWT) and Nunavut as well as Headquarters (HQ). The regions are primarily responsible for implementing the NCSP whereas HQ provides program management support, policy direction and provides operational support to the regions. Numerous committees have been created to provide strategic direction to the Program and to ensure consistent application of the Contaminated Sites Management Policy.

In the NWT and Nunavut, NAO holds direct responsibilities for care and maintenance, assessment and remediation of contaminated sites. Within the Yukon, the Program's activities are guided by the Devolution Transfer Agreement (DTA) which defines the roles and responsibilities between the federal and Yukon governments. More information on this agreement can be found online at http://www.ainc-inac.gc.ca/nth/pubs/yna/yna-eng.asp.

Our People

The NCSP is managed and delivered by dedicated resources within HQ and in the three regions of: Nunavut, Northwest Territories (NWT) and Yukon. The NCSP is also supported in the regions by PWGSC who are tasked to provide contract management and engineering expertise.

The number of people required to deliver the Program has increased significantly since its inception in 2002. In the last five years, the Program has continued to grow its employee base with positions created both in the regions and at HQ. **Table 1: Total Employment** illustrates that, overall, the Program has grown its employee base by 75% since 2004-05. Between 2007-08 and 2008-09 employment in the Nunavut Region increased by 68% due to an increase in assessment and remediation activities. Conversely, the NWT region experienced a decrease in employment over the same period, although this was due to difficulty in staffing vacant positions rather than reduced activity.

Table 1: Total Employment

Total Employment	2006-07	2007-08	2008-09
Headquarters	7.5	10.5	9.5
Nunavut	4.75	4.75	8
NWT	29	42.5	37
Yukon	7.5	7.5	11
Total	**48.75**	**65.25**	**65.5**

Our Sites

The NCSP maintains an electronic inventory of contaminated sites that is updated regularly to provide an accurate record of the extent and nature of contaminated sites in the North. As of March 31, 2009 the Program had identified 1971, sites. 728 of these sites are considered suspected contaminated sites in the North that require assessment. The remaining sites have either been assessed and require no further action or are considered contaminated and are undergoing detailed assessment, remediation or risk management. In 2008-09, there were a total of 85 active sites, an increase of nine sites over the previous year.

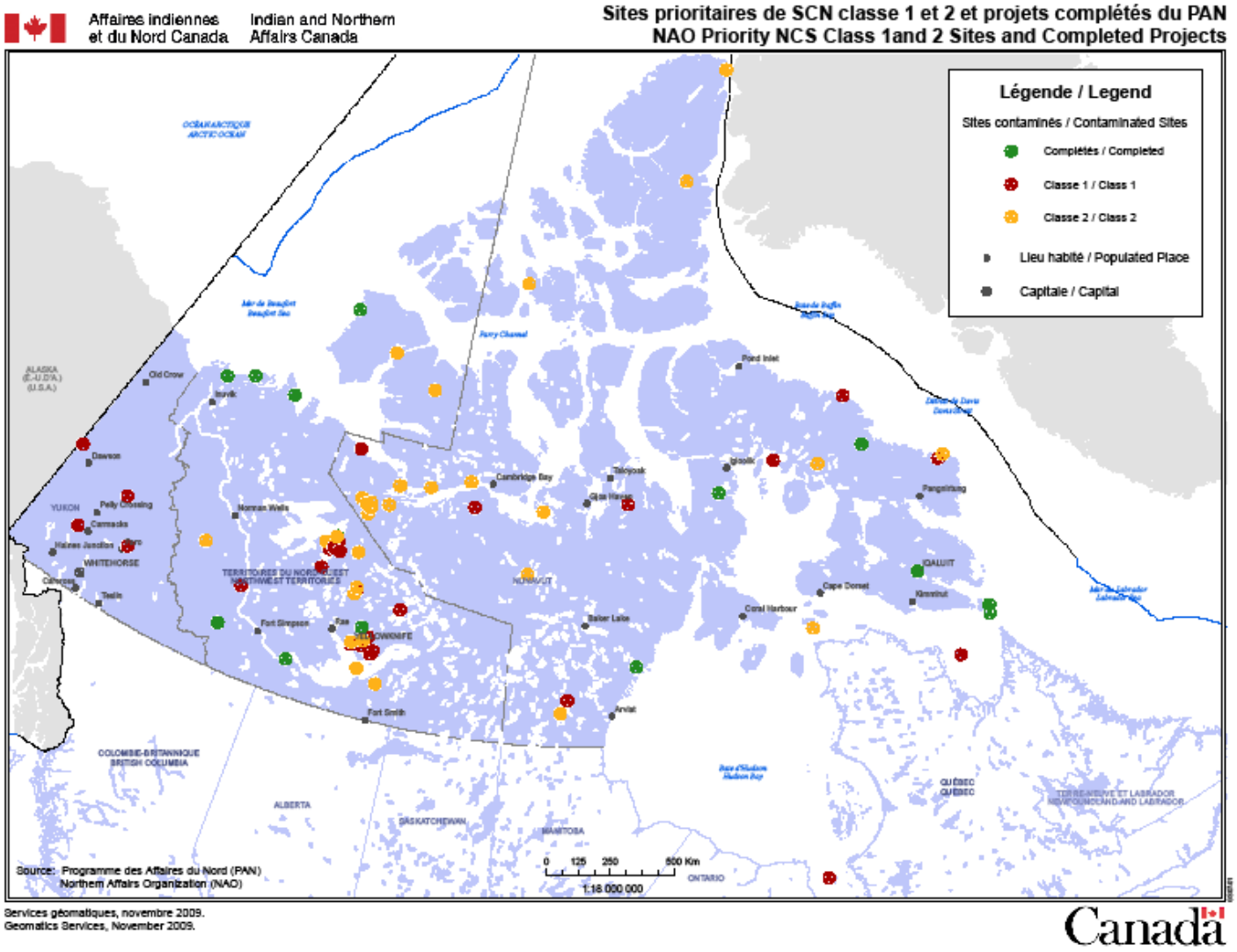
Table 2: Sites by Class

CLASS	2006-07	2007-08	2008-09
1	49	50	45
2	22	26	33
3	0	0	7
TOTAL	**71**	**76**	**85**

Note: Sites under risk management and monitoring maintain their NCS designation and are included in this table. Please refer to Appendix 1 for definition of NCS Scores

These sites are the focus of many of the NCSP's activities and represent a significant percentage of Program expenditures. **Table 2: Sites by Class** provides a breakdown of the number of sites with confirmed contamination based on NCS classification. In 2008-09 the number of NCS Class 1, 2 and 3 sites has increased by 2%, 74% and 40% respectively since 2004-05.

Figure 1: Map of Priority NCS 1 and 2 Sites



Challenges

There are a number of factors that make addressing contaminated sites in the North unique compared to other sites in Canada. These factors contribute to the significant resources that are needed for this Program. These factors include the following:

- **Remoteness** – there are significant logistical challenges in accessing remote locations. The typical mobilization and demobilization costs for a project are in the order of millions of dollars and represent the highest risk for project success. Equipment must often be leased or contracted for an entire year even if it is only required for a few months. At times, winter roads need to be constructed and used to bring in equipment for use in the summer months. The uniqueness of the northern environment including its ecology, extreme temperatures and the existence of permafrost soils must be taken into consideration when designing remediation plans.

CAM F Sarcpa Lake, NU

- **Climate change** – the evolving climate has impacted the Program in many ways; in particular climate change has had a significant impact on the quality and reliability of winter roads. An increasingly unpredictable northern climate, which affects both summer and winter seasons, increases weather-related risks and associated costs. Climate change risks are also incorporated into the selection of remediation options to provide a full understanding of potential long-term project costs.

- **Complexity and Size of Sites** – The NCSP's liability is a significant proportion of total federal liability for contaminated sites(over $1.43 billion). The requirement for a continued long-term presence at large sites (Colomac, Giant and Faro) to operate critical systems and monitor conditions and controls accounted for expenditures of $18,129,800 in 2008-09.
- **Human Resource and Consultant Capacity** – There is a challenge finding individuals with the required experience in contaminated sites remediation willing to live in the North. In some cases, individuals have the engineering and environmental background but not the project management or northern experience. In addition, the labour market in Alberta and other parts of the country are competing with the North for human resources causing capacity constraints. To address this challenge, both the regions and headquarters are involved in developing a Program Human Resource (HR) Strategy. This HR Strategy will address the human resourcing issues and contribute to developing a training strategy which promotes training and skills development. Specifically, the HR Strategy will document forecasted resource requirements over the next three years, identify resource capacity and capability gaps, and prepare a plan to address these gaps.

- **Land Claims** – A dynamic and evolving jurisdictional landscape is creating new requirements and considerations (such as overlapping and interim land claim measures). In addition, they create opportunities for partnerships and Aboriginal benefits.

- **Use of Traditional Foods by Northerners** – Northerners rely on traditional/country foods and the real and perceived impacts of contaminated sites on humans and the environment adds an extra dimension to the remediation of contaminated sites in the North.

Contaminated Sites Profile: Faro Mine

Faro Mine is located in south-central Yukon, 22 km north of the Town of Faro. Faro was an open-pit lead-zinc mine that began production in 1969 and went into interim receivership in 1998.

Health & Safety and Environmental Concerns

Large amounts of waste rock and tailings remain at the Faro Mine site and they could potentially impact aquatic and terrestrial ecosystems. Minimizing acid and metal generation, treating contaminated water, maintaining and upgrading infrastructure, and minimizing dust sources will be key features of a closure and remediation plan at Faro.

Remediation

For the past ten years, the court appointed Interim Receiver, Deloitte and Touche Inc. has been responsible for care and maintenance of the Faro mine site. In July 2008, the Government of Yukon awarded a three-year, $21.6 million contract to Denison Environmental Services, to continue with the site's ongoing collection and treatment of contaminated water, general maintenance and site security.

In February 2009, a closure plan for the Faro Mine Complex was recommended by the Faro Mine Oversight Committee after consultations with community members of the Ross River Dena Council, Selkirk First Nation, Liard First Nation and Town of Faro. The implementation of this closure plan will commence once all regulatory, environmental and socio-economic assessments are completed and the project receives all the necessary approvals. The construction could take up to 15 years to complete, which will ensure jobs and business opportunities for Northerners and affected Yukon First Nations. The adaptation phase where all covers, structures, collection and treatment systems will be tested, monitored and improved, will then take an additional 20 to 25 years to complete.

Expenditure

2008-09 expenditures were $14,476,953.

Social, Economic and Environmental Highlights

The next phase of the project is the regulatory phase that begins with the environmental assessment (EA) and socio-economic assessment (SEA).

Future Plans

The closure and remediation plan will go through the *Yukon Environmental and Socio-economic Assessment Act (*YESAA) and regulatory review processes.


Grum Pit, Faro Mine, YT

2 NORTHERN CONTAMINATED SITES PROGRAM PROGRESS

This report presents NCSP's performance against the six Results-based Accountability Framework (RMAF) objectives of the Program. As previously mentioned, these objectives are:

1. Meeting legal obligations;
2. Identifying and assessing contaminated sites;
3. Remediating NCS Class 1 Sites;
4. Promoting benefits to Northerners and Aboriginal suppliers;
5. Promoting the 'polluter pays' principle; and
6. Implementing a consistent, cost-effective and accountable Program.

2.1 Meeting Legal Obligations

Objective 1: The Program is obligated to maintain a list of program regulatory and policy requirements and to adhere to the requirements.

Progress against 2008-09 Targets

The Program continues to incorporate all relevant regulatory and policy requirements in detailed work plans and project management documents to ensure that the plans are in compliance with regulatory and policy documents. To ensure that work is conducted in accordance with these requirements, the Program conducts site audits as well as desk audits.

Audits

The NCSP's Environment, Health and Safety (EH&S) Management System and the EH&S Standard Operating Procedures (SOPs) were developed in the fall of 2006. The purpose of the EH&S Management System and SOPs is to establish minimum standards and requirements for identifying and proactively managing issues related to the environment and health and safety hazards within NCSP's area of responsibility. In March 2007, the NCSP developed an EH&S Audit Program Guide that describes how the NAO will conduct audits as part of the EH&S Management System. This audit Program is the primary means, along with quarterly reports, for HQ to assess compliance of NCSP operations with the requirements of the EH&S Management System. EH&S Management System and Compliance Audits were undertaken in Nunavut, the Northwest Territories and Yukon during the 2008 season.

In 2008-09, the Program completed four (4) environmental health and safety site audits (Silver Bear, Sawmill Bay, North Inca and Colomac), and no non-compliances were found. In the Nunavut region, a desk audit of the site assessment program was undertaken. In addition, the Yukon region's, Waste Management Program was subject to an environmental health and safety audit. Finally, the Contaminated Sites Program participated in a department-wide health and safety audit.

Table 3: Program Audits, below shows the number of site audits conducted in 2008-09 compared to the two previous years. It is interesting to note that the number of non-compliances have decreased from 2006 with no non-compliances for the fiscal year 2008-09 with a consistent number of sites and audits conducted. This indicates that the Program is maturing and the regulations for environmental health and safety are being fully incorporated into the implementation of on-site activities.

Table 3: Program Audits

Audits	2006-07	2007-08	2008-09
Number of sites audited	5	5	4
Number of audits performed	9	10	8
Number of non-compliances	20	10	0

Environment, Health and Safety

An environment, health and safety (EH&S) policy was developed by the Program to facilitate the implementation of the EH&S Management System discussed above. This policy included a standard operating procedures manual that supports the achievement of the policy requirements. The policy and management system, together with the establishment of an EH&S Officer position, has improved EH&S within the Program. Some of the impact has been seen in identifying and reducing the potential for health and safety or environmental accidents or incidents; improving regulatory compliance; assuring due diligence; and reducing overall risk and liability. Even with these measures, in the winter of 2008-09, it was felt that the Program needed to create an Environmental Health and Safety Committee to ensure that all Program activities meet EH&S requirements, and to ensure that staff, contractors, visitors and local communities are not adversely impacted by environmental, health and/or safety risks associated with contaminated sites. This committee will be created in 2009-10.

As stated in the NCSP's Environment, Health and Safety Policy, health and safety of employees and protection of the environment are top priorities. INAC management is committed to doing everything possible to prevent injuries and to maintain a healthy environment. Most northern contaminated sites are remote and exist on fragile Arctic landscapes making safety incidents more challenging to deal with and exposure to hazards such as wildlife and severe weather more likely.

Northern contaminated sites pose risks to public health, the environment and present significant hazards to workers assessing and remediating contaminated sites. Once full-scale remediation is underway, hazards can be similar to those found at large scale construction sites. Bill C-35 amendments to the Criminal Code require that the NCSP exercises due diligence in ensuring worker health and safety.


Clinton Creek, YT

Environmental Health & Safety Training

The NCSP is committed to ensuring that its staff and contractors have the latest skills and knowledge in Environmental Health and Safety (EH&S). **Figure 2: EH&S Training, 2006-2009** provides the training details for the past three years. In 2008-09, awareness training was delivered to 633 people, down slightly from the previous year. This decline in training can be attributed to the fact that recertification is required bi-annually which explains why in 2006-07 and 2008-09 the Awareness training figures are lower than in 2007-08. Similarly, the Hazardous Waste Operations and Emergency Response Standard (HAZWOPER) training experienced a significant increase in 2008-09 compared to 2007-08.

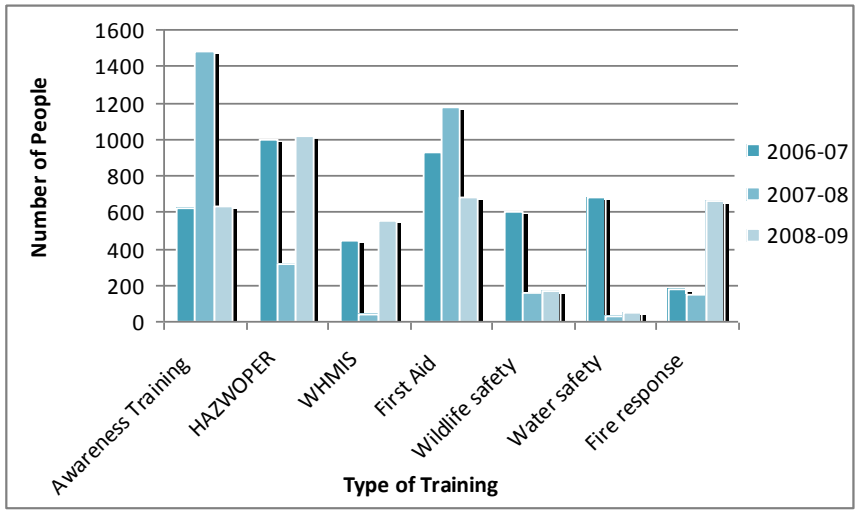


Figure 2: EH&S Training, 2006-2009

Contaminated Site Profile: Giant Mine

Giant Mine covers 949 hectares and is situated within the city limits of Yellowknife City, approximately 5 km north of the city centre. The site lies along the western shore of Yellowknife Bay, an arm of Great Slave Lake. The mine operated nearly continuously from 1948 until its closure in July 1999.

Health & Safety and Environmental Concerns

Giant Mine is ranked as a Class 1 contaminated site through the National Classification System (NCS) and Federal Contaminated Sites Action Plan (FCSAP). The main environmental issue at the site includes the 237,000 tonnes of arsenic trioxide stored underground and various buildings and surface areas contaminated with arsenic. If not managed properly, these sites represent significant hazards to human health and the environment.

Remediation

The Terms of Reference for the Environmental Assessment (EA) was issued by the Mackenzie Valley Environmental Impact Review Board in March 2009 and the EA could take up to three years to complete. Following the EA, site remediation will take approximately eight years.

Continued care and maintenance of the site is required to ensure environmental compliance (MMER of the *Fisheries Act*). The cost of C&M and management of the project, including cost to support the EA process is approximately $30,000 per day.

Expenditures

In 2008-09 expenditures were $11,726,383 and the forecasted expenditures for 2009-10 are $31,327,195. This increase is due in large part, to costs associated with the Freeze Optimization Study which will inform the EA process and assist in the final design of the remediation.

Social, Economic and Environmental Highlights

Under the March 15, 2005 Cooperation Agreement, both INAC and the GNWT agreed to maximize northern economic development opportunities in carrying out the Giant Mine Remediation Project, subject to the policies and legislation of each government. Phase 1, care and maintenance, is contracted to Deton'Cho/Nuna, a Yellowknives Dene and northern company joint venture.

Future Plans

It is anticipated that the EA process will take three years to complete with

Safety Performance

Numerous environmental and human health and safety risks exist at the NCSP sites. These include: chemical hazards, tailings, hydrocarbon spills, hazardous materials and physical hazards associated with open pits, quarries, waste rock piles, buildings and other infrastructure. **Table 4: Safety Performance, 2006-2009** provides the Lost-Time accident information for the past three years. A significant decrease in lost time accidents occurred over the last three years, a testament to the implementation of the EH&S Management System. Unfortunately in 2008-09 there was a fatality at the Colomac Mine site in which a Contractor's employee fell through the ice at Tailings Lake. The fatality is still under investigation by Human Resource and Skills Development Canada (HRSDC). Corrective actions are being implemented through the Assurance of Voluntary Compliance (AVC) and other due diligence measures.

Table 4: Safety Performance, 2006-2009

Safety		2006-07	2007-08	2008-09
Lost-time accidents (LTA)	Number	19	8	3
	Time lost (person-hours)	331	672	324
Near misses	Number	82	84	14
Number of Sites Reporting Data by Year		*23 of 30*	*28 of 29*	*23 of 24*

Incidents, Inspections and Audits

As mentioned earlier, the health and safety of workers on NCSP sites is extremely important. The Program tracks environmental incidents, outstanding compliance issues and inspections/audits. In 2008-09, at FOX-C Ekalugad Fjord, two sewage releases did not meet discharge criteria and resulted in 150,000L of material being released. The NCSP has quickly taken the lessons learned from this incident to ensure a similar situation does not occur at other sites. In 2008-09 there was also a small acid spill at Giant Mine that occurred when an unused storage tank was being removed from the site. The spill was noticed immediately, contained and neutralized with no lasting damage. **Table 5: Incident, Inspections and Audits, 2006-2009** provides the Program summary.

Table 5: Incident, Inspections and Audits, 2006-2009

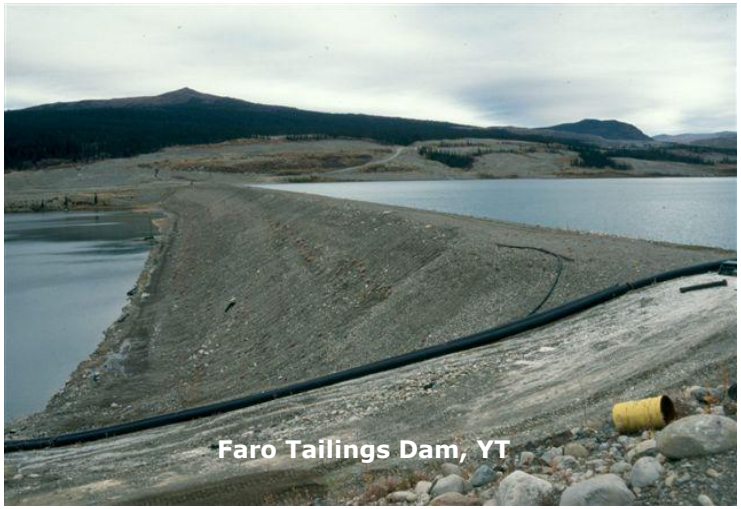
Incidents, Inspections and Audits		2006-07	2007-08	2008-09
Significant environmental incidents	Number	5	5	7
	Volume spilled or released (L)	1442	1112	150420
Outstanding compliance	Number	0	7	4
Inspections	Number performed	29	77	176
	Number of non-compliances	1	20	0
Audits	Number performed	9	10	7
	Number of non-compliances	20	10	0
Number of Sites Reporting Data by Year		*23 of 30*	*29 of 29*	*23 of 24*

2.2 Identifying and Assessing Contaminated Sites

Objective 2: The Program is required to assess potential contaminated sites and accurately report the liability associated with the site to the Crown.

Site Assessments (Phase I & II)

The Program continues to progress towards achieving its goal of completing all remaining site assessments in Nunavut and the NWT by 2012 (all Yukon sites have been assessed). Of the 1971, sites in the Northern Affairs Program database, 1243, (63%) sites have been assessed since the inception of the Program. Once a site is assessed, it is classified based on the Contaminated Sites National Classification System (NCS). The NCS classifies sites with the lower class numbers as the more critical site. Class 1 and Class 2 sites are currently funded by the Federal Contaminated Sites Action Plan (FCSAP).


Faro Tailings Dam, YT

In 2008-09, the Program was able to assess 132 sites (95 in Nunavut Region and 37 in NWT). This represented a significant increase over the 20 sites assessed in 2007-08. This increase can be largely attributed to the accelerated plan for site assessments that was implemented in the Nunavut region. **Figure 3: Phase I&II Assessments** provides the performance over the last three years.

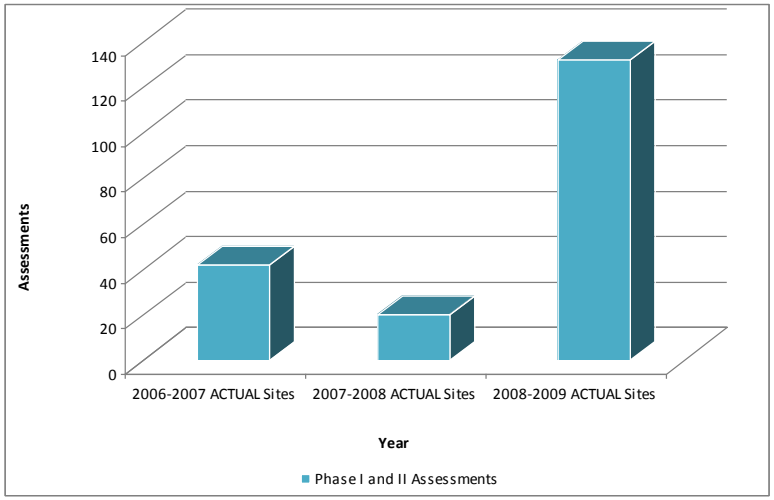


Figure 3: Phase I&II Assessments

Contaminated Sites Liability

INAC is responsible for ensuring that all potential and known costs related to the management and remediation of contaminated sites – also known as a liability – are accounted for and reported in accordance with the Treasury Board Policy on Accounting for Costs and Liabilities Related to Contaminated Sites (http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=12152).

New liability estimates are developed on an annual basis as site assessments are completed and, for sites undergoing remediation, adjustments are made based on the completion of remediation work or due to any change in the most recent cost estimates. As of March 31, 2009, the NCSP identified eighty-five (85) sites representing an estimated $1.43 billion in federal liability. This represents a small increase (2%) over the 2007-08 fiscal year reported liability of $1.4 billion although the number of sites being managed by the NCSP has increased by 15% over 2007-08 (from 76 to 85 sites). In 2008-09, the Faro Mine (Yukon) and Giant Mine (NWT) represented the greatest liability at 82% of the total liability (see Figure 4). In fiscal year 2008-09, the Yellowknife municipal government requested that the Giant Project go through the Environmental Assessment (EA) process, which is expected to take three years and has increased the liability of the site due to ongoing care and maintenance requirements.

As more site assessments are completed, the NCSP expects that the liability estimates will continue to increase since it is estimated that one in four suspected sites are in fact contaminated. However, based on historical assessment activities, it is expected that any new sites will have an average liability of only $1 million per site.

The NCSP expects that the liability estimates will cease to increase beginning in 2012, due to the implementation of the remediation plan at Giant and following the assessment of all the remaining suspected sites.

When the liability estimates for Faro and Giant Mine are excluded from the NCSP's total liability estimate, as illustrated in **Figure 4: Trends in Liability, 2004-2009,** the Liability has remained relative constant since 2004 at around $400 million.

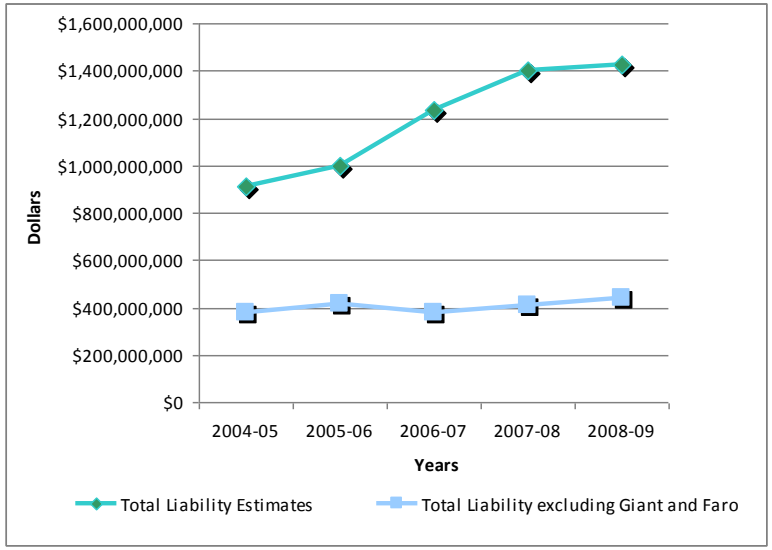


Figure 4: Trends in Liability, 2004-2009

Contingent Liability

The NCSP's contingent liability decreased dramatically (over 50%) between 2007-08 and 2008-09. This decrease is a direct result of the Program's continued work to better define the scope and preferred options for remediating large sites. Despite the increase in overall liability, the expenditures being made on assessment and remediation activities contribute to creating more certainty in the liability amount reported.

Figure 5: Contingent Liability displays the contingent liability estimates by region for the past five years. The greatest change is in the Yukon region which, although it has seen it's contingent liability increase by 295% since the 2004-05 fiscal year, has experienced a dramatic decrease since 2007-08 as a result of the selection of a remediation option at Faro Mine.

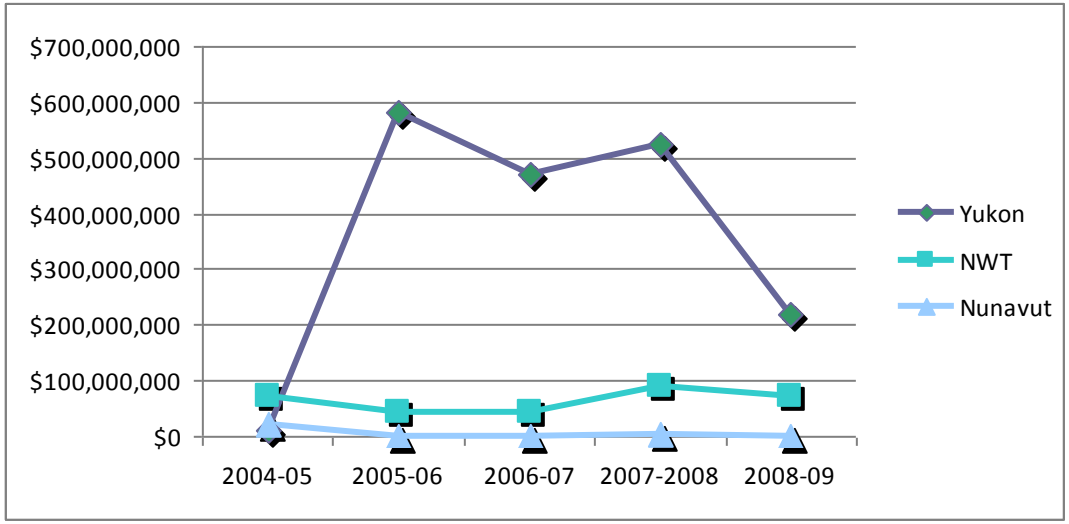


Figure 5: Contingent Liability

Contingent Liability: are potential liabilities that may become actual liabilities when one or more events or future events occur or fail to occur

2.3 Remediating Class 1 Sites

Objective 3: The Program is required to remediate all Class 1 sites by 2021

The INAC Contaminated Sites Management Policy requires program and project managers to follow the ten-step process, developed by the Government of Canada's Contaminated Sites Management Working Group, to manage and remediate contaminated sites[1]. Preliminary steps involve identifying and assessing sites and subsequent phases involve developing and implementing remediation and risk management plans.

Phase III Assessments, Remediation and Monitoring

As illustrated in **Figure 6: Assessment, Remediation and Monitoring Activity** the NCSP is managing 45 Class 1 sites, of which 13 have had remediation activities completed. Sites completed in 2008-09 include: CAM-F Sarcpa Lake (Nunavut), FOX-C Ekalugad Fjord (Nunavut), BAR-D Atkinson Point (NWT), Port Radium (NWT) and Discovery Mine (NWT). These results indicate that the NCSP continues to make progress towards its target to remediate all Class 1 sites by 2021.

In 2008-09, the NCSP had 19 sites in remediation, five (5) in Phase III assessment and four (4) in monitoring. This total is more than the total number of sites being managed by the NCSP due to the fact that some site activities are double counted between Phase III assessment and remediation.

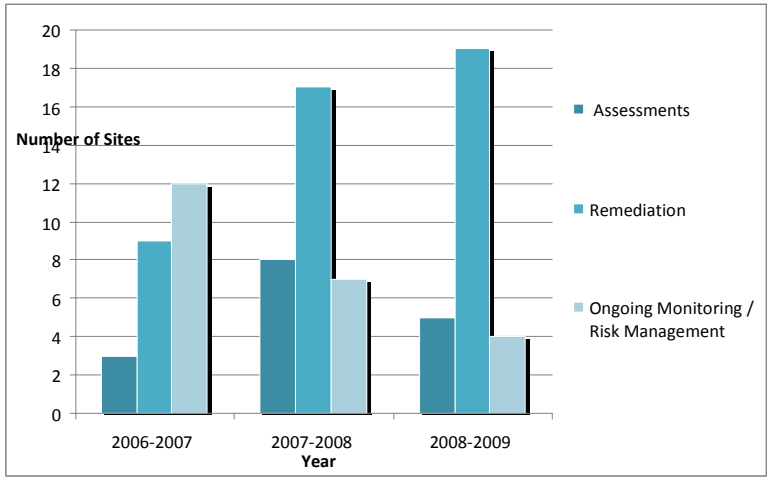
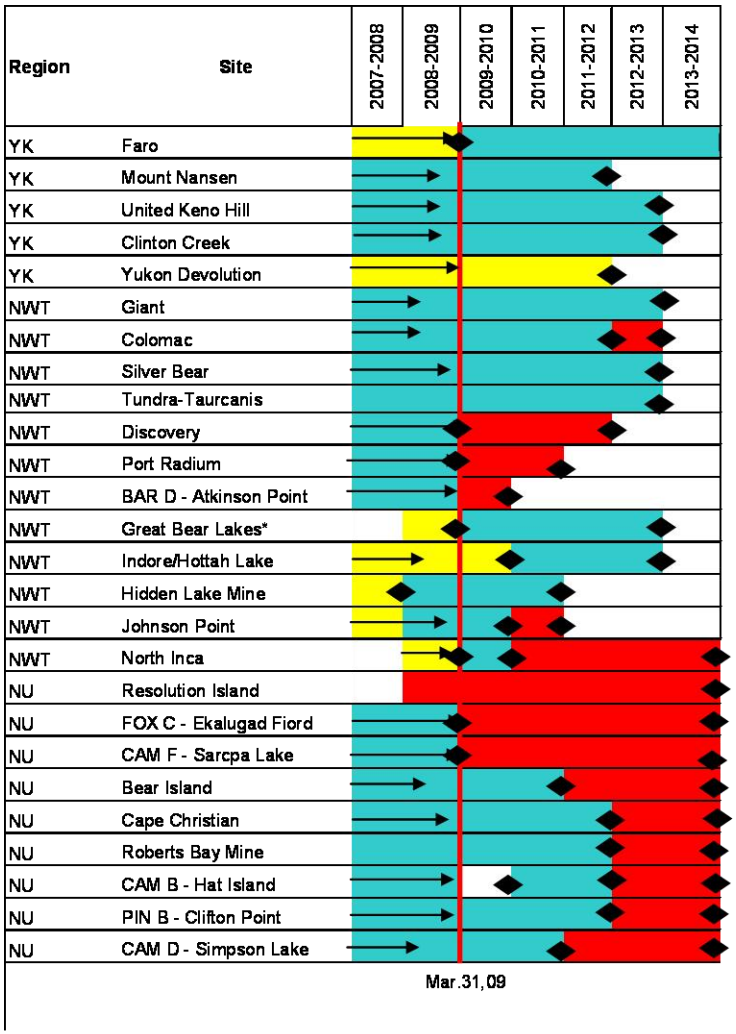


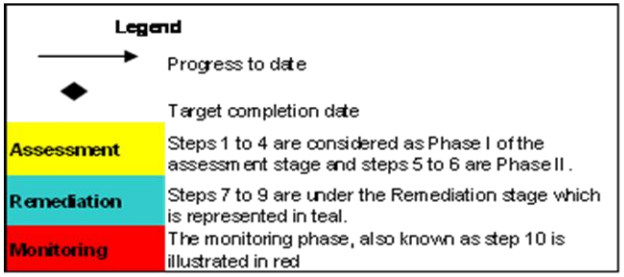
Figure 6: Assessment, Remediation and Monitoring Activity

The progress that NCS Class 1 sites have made along the ten-step process is shown in **Figure 7: Progress for NCS Class 1 Sites** on the next page**.** In many instances the sites will remain in a step for a number of years due to the complexity of the site and the time it takes to conduct the related activities.

[1] See Figure 7 for 10-step process

Figure 7: Progress for NCS Class 1 Sites





Federal Approach for Addressing Contaminated Sites – Ten-Step Process

Step 1 - Identify Suspect Sites
Step 2 - Historical Review: Assembles and reviews all historical information pertaining to the site.
Step 3 - Initial Testing Program
Step 4 - Classify Contaminated Site Using the CCME National Classification System
Step 5 - Detailed Testing Program
Step 6 - Reclassify the Site Using CCME National Classification System
Step 7 - Develop Remediation/Risk Management Strategy
Step 8 - Implement Remediation/Risk Management Strategy
Step 9 - Confirmatory Sampling and Final Reporting
Step 10 - Long-Term Monitoring

Source: A Federal Approach to Contaminated Sites, 1999.

Note: The Steps indicate the stage a site is at and not the effort associated with each Step. Much more time and energy is required to complete Step 8 than any other step.

*Great Bear Lakes includes:Sawmill Bay, Silver Bear, El Bonanza from 2008-09 onwards

Expenditures

Overall Spending

In 2008-09, the NCSP budget allocation was $114,258,130. This budget included funding from the Federal Contaminated Sites Action Plan (FCSAP) $99,923,367 and INAC, $12,422,928. In 2008-09 the NCSP spent $85,985,688 or 75% of its budget allocation. This included $10,717,107 in INAC funds and $75,268,581 in FCSAP funds.

Figure 8: Source of Funds, displays the expenditures since 2006-07 split by the two funding sources. This table shows that expenditures have decreased by 25% since 2007-2008, and will be discussed further below.

All regions' expenditures were below the forecasts and can be attributed to a number of factors, including delays in obtaining licenses, weather delays, etc.

The NWT experienced significant delays at a few major sites including the Colomac and Giant Mine sites. At Giant Mine, the Program was instructed to undergo Environmental Assessment (EA) meaning that any activity requiring a permit cannot proceed until after the EA process. This delay has contributed to the Region not being able to completely spend its annual budget.

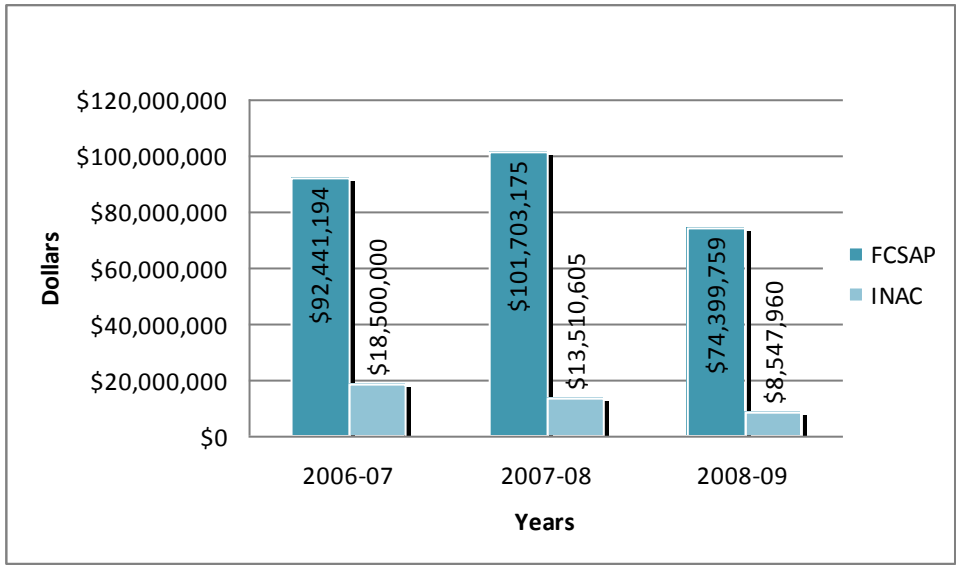


Figure 8: Source of Funds

Trends in Expenditures (2004-2009)

Since 2004, the Program has experienced an increase in expenditures each year as the NCSP completed more site assessments and carried out more extensive site remediation work. This trend of increasing expenditures did not carry over into the 2007-08 and 2008-09 fiscal years even though the NWT Region had forecasted an increase in expenditures (see **Figure 9: Contaminated Sites Total Expenditures by Region, 2004-2008)**. The expenditures in the Nunavut region experienced a small increase of 0.11% whereas the NWT and Yukon regions decreased by 6.36% and 2.97% respectively. The decrease in spending can be attributed to the delays in securing land use permits which stalled assessment and remediation activities.

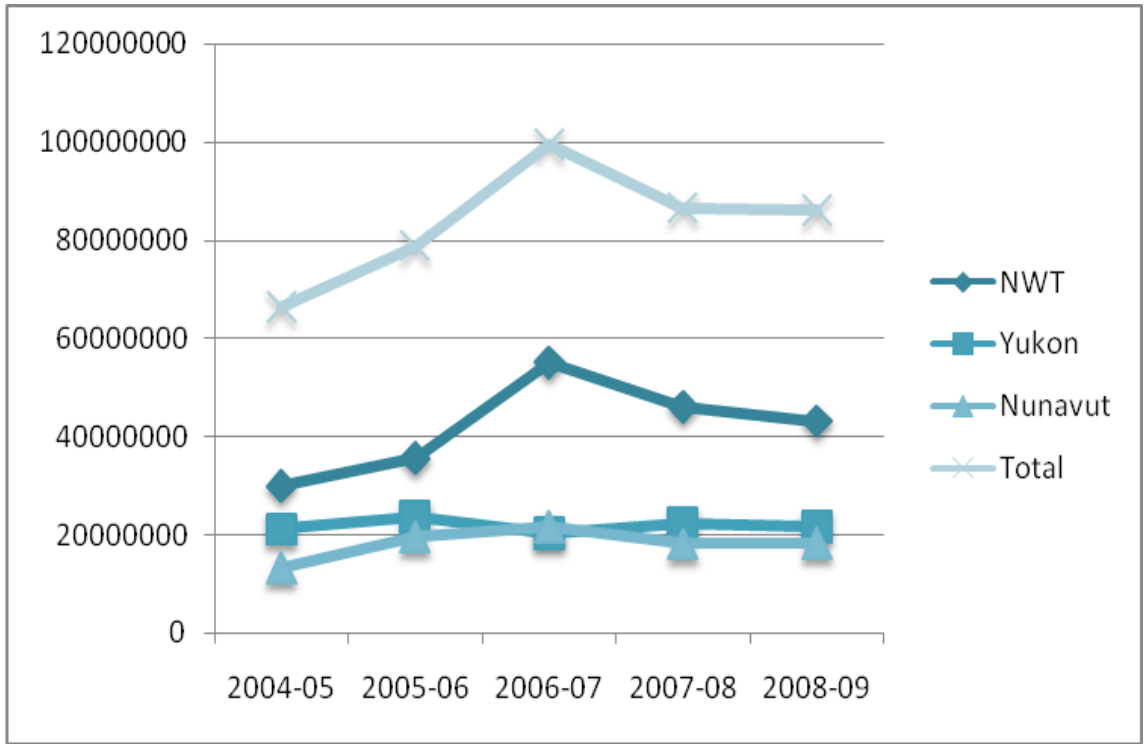


Figure 9: Contaminated Sites Total Expenditures by Region, 2004-2008

Program Expenditures by Activity

Figure 10: Program Expenditures by Activity, 2006-2009 illustrates the Program expenditures divided by seven different activities: program administration/project management; monitoring; site remediation; site investigation and assessment; consultation; regulatory approvals; and care and maintenance. All categories had a slight increase since 2007-08 except for site remediation which decreased by 22%. Another notable change is in the consultation expenditures which increased by 153% from 2007-08.

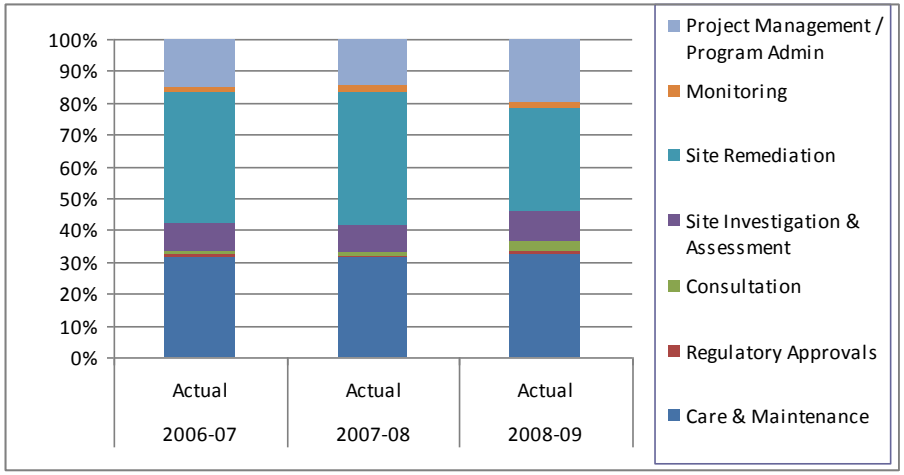


Figure 10: Program Expenditures by Activity, 2006-2009

Contaminated Sites Profile: BAR-D Atkinson Point

Atkinson Point, is located in the Western Arctic on the coast of the Beaufort Sea. Originally reserved and developed as an intermediate Distant Early Warning (DEW) Line site between 1956 and 1965, subsequent uses of this site included military radar and support, scientific research and maintaining a local caribou herd.

Health & Safety and Environmental Concerns

The risks associated with the site were driven by the presence of polychlorinated biphenyls (PCBs). An ecological risk assessment demonstrated that there was some risk to the environment while human health risks were considered low based on various exposure scenarios.

Remediation

In the summer of 2007-2008 various remediation tasks were completed, such as the excavation and on-site remediation of hydrocarbon-contaminated soils by the collection and containerization of hazardous wastes. The final steps of the site remediation - demobilization and waste disposal – were completed in October 2008.

Expenditure

2008-09 expenditures were $617,113.

Social, Economic and Environmental Highlights

INAC has provided regular updates to and engaged in extensive discussions with the Inuvialuit Regional Corporation during the project's life cycle. Further, the Program hired a part-time community liaison in Tuktoyaktuk to ensure someone in the community was available to address any potential concerns. While developing the Remedial Action Plan in 2006-2007, a meeting was held to inform people about remediation options and to address any outstanding issues. The remediation contract was awarded to a 100% Inuvialuit-owned company based in Tuktoyaktuk, who maintained Inuvialuit employment and supplier objectives of 85% and 95%, respectively, for the duration of the contract.

Future Plans

Post-remediation monitoring and inspection will likely be required for a few years to ensure the stability of contaminated soil excavations and borrow areas (sites where material is removed for use as fill elsewhere)

2.4 Social, Economic and Environmental Performance

Objective 4: Benefits accrue to Aboriginal and Northern People

The NCSP is committed to protecting human and environmental health through managing and remediating contaminated sites in the North. The Program is also committed to promoting social and economic opportunities in the North by engaging First Nations, Inuit and other Northerners in the management and remediation process. The NCSP has worked toward developing regional socio-economic strategies in 2008-09 and expects to have some guidelines developed by the end of fiscal year
2009-10.

Socio-Economic Performance

The socio-economic benefits of the NCSP are to be achieved through two strategies that include:

1. Delivering training to northern Aboriginal people and other Northerners, that is transferable to other projects; and
2. Economic development through direct and indirect employment at any point in the process (site assessments, remediation, risk management, care and maintenance and monitoring).

The Program strives to create positive social and economic impacts for people living in nearby communities. These include providing socio-economic benefits to northern communities through the procurement of goods and services from northern Aboriginal and non-Aboriginal businesses, and through the employment of local people. INAC also supports training programs, through its remediation contracts, that help to build the capacity of locals and provide opportunities to obtain future work based on a skills developed model. In Nunavut, for example, the Region is collaborating with partners to develop Inuit capacity-building and training programs. In addition, the Program has included an Aboriginal Benefits Package (ABP) in its Request for Proposal (RFP) and Contract documents.

The NCSP has an objective that all sites report consistent socio-economic statistics and that 60% of all regional business contracts are allocated to northern Aboriginal suppliers. For the fiscal year 2008-09, 95% of all sites provided socio-economic data and 60% of suppliers were northern or Aboriginal. Socio-economic information is tracked through the quarterly performance reports and presented in this report.

Public Meeting in Clyde River, NU for the Cape Christian Project

Employment

In 2008-09 the NCSP provided over 1,271 individuals with employment opportunities; an increase of 24% from the previous year as shown in **Figure 11: Employment, 2006-2009**.

The total number of Northerners employed (includes Aboriginal) in 2008-09 was 923 which represents an increase of 22% over 2007-2008. The total Aboriginal employment was 402 representing a decrease over 2007-2008 of 21%.

The NCSP has a target of 60% northern and 60% Aboriginal employment. In 2008-09, 73% of the total employment was northern, exceeding the target of 60%. Unfortunately the Program did not meet the Aboriginal target of 60% and fell short achieving 32%. However, since 2006-07 the Program has provided on average 41% of employment to Aboriginal Peoples. This is in part because access to human resources is limited due to other opportunities in the North.

Workforce Training

In 2008-09 the total workforce training decreased significantly from 2007-08 (by 81%) as seen **Figure 12: Workforce Training, 2006-2009.** This reduction in training was due to the fact that not all training is required on an annual basis. It also indicates that the Program is maturing and a significant portion of Northerners have received the training they require to work at our sites.

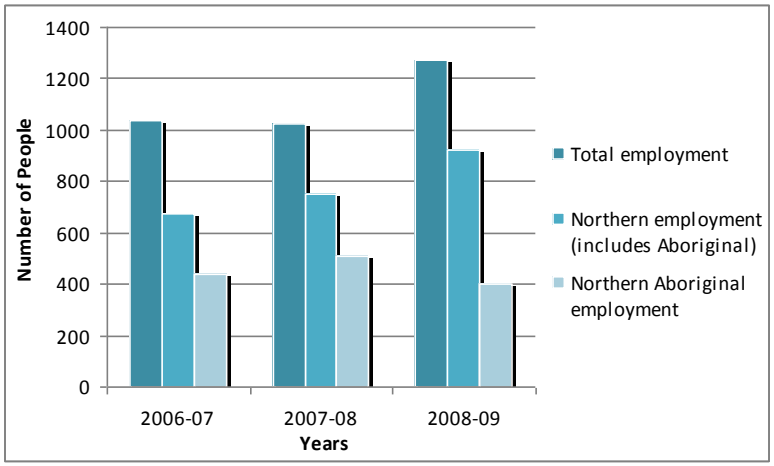


Figure 11: Employment, 2006-2009

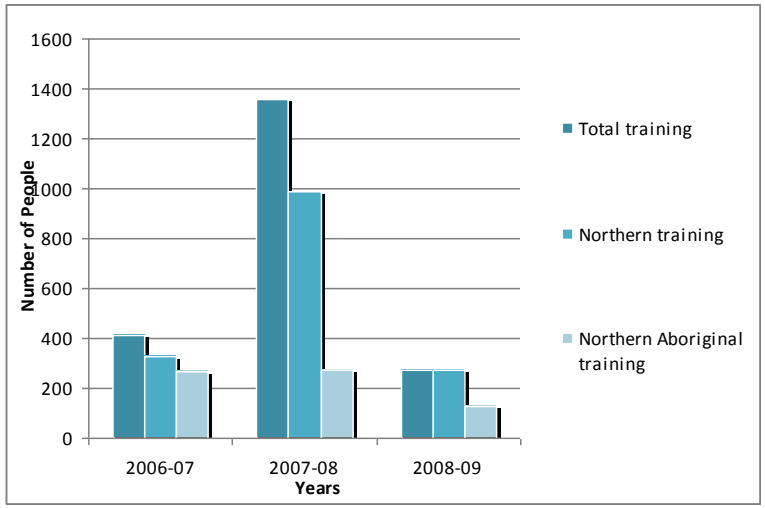


Figure 12: Workforce Training, 2006-2009

Purchase of Goods and Services

In 2008-09, 23 sites reported doing business with a total of 825 northern suppliers, of which 237 were northern Aboriginal suppliers, a decrease from the previous fiscal year of 11%. **Figure 13: Purchase of Goods and Services, 2005-2009** shows the total value of business with northern suppliers was roughly $24 million, 57.9% of which was from northern Aboriginal suppliers. The largest contracts were required for the Colomac Mine, Giant Mine and Ekalugad Fiord projects.

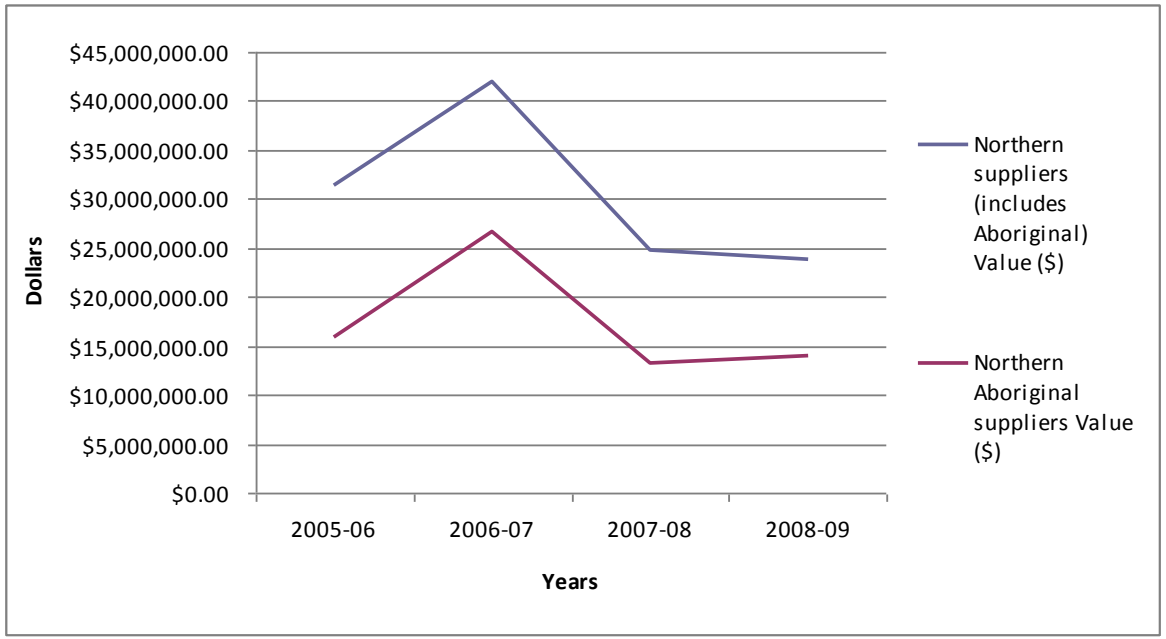


Figure 13: Purchase of Goods and Services, 2005-2009

Stakeholder Consultation

The NCSP promotes First Nation, Inuit and other Northerner participation throughout all stages of the remediation processes, including: community consultations, workshops, site tours and press releases. NCSP performance in these areas is provided below.

Community Consultations

Community Consultation represented a larger portion of the NCSP expenditures for fiscal year 2008-09 as can be seen in **Table 6: Consultation Performance Measures, 2006-2009**.
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Although the total number of community tours decreased (35%) since 2007-08, there were a number of focused activities taking place in the regions. In 2008-09, for example, there were a total of 40 community tours and meetings, 4 workshops, 33 site tours and 24 press reports. The number of press reports was up significantly (100 % increase) over 2007-08. Jean-Marie River held the greatest number of tours and meetings (7 events) followed by Tundra (5) and Colomac (4). Axe Point and Colomac attracted the greatest number of people (162) and (150) respectively. There was also radio coverage of three sites including Colomac, Giant and Johnson Point.

Table 6: Consultation Performance Measures, 2006-2009

Consultation Performance Measures		2006-07	2007-08	2008-09
Community tours and meeting	Number	44	62	40
	Audience (number of persons)	453	1146	883
Workshops	Number	6	2	4
	Audience (number of persons)	63	63	40
Site tours	Number	31	23	33
	Visitors (number of persons)	225	300	300
Media (TV, radio) events	Number	28	14	15
Press reports	Number	15	12	24
Number of Sites Reporting Data by Year		*21 of 30*	*29 of 29*	*23 of 24*

2.5 Polluter Pay Principal

Objective 5: Polluter Pay Principal

The Program will continue to do historical research on contaminated sites during the Phase I and II assessments to determine if there is a liable operator. In addition, headquarters will provide direction as needed to the regions.


Fox C – Ekalugad Fjord, NU

Contaminated Sites Profile: FOX-C Ekalugad Fjord

Ekalugad Fjord, is located on the east coast of Baffin Island in Nunavut. The site was constructed as an intermediate Distant Early Warning (DEW) Line site in 1957 but abandoned in 1963.

Remediation

The intent of the remediation plan was to mitigate and/or control the migration of contamination to the surrounding environment. Therefore, soils with significant contamination or in locations with higher environmental risk were excavated and treated in a landfarm, and soils with lower levels of contamination were remediated in place. Remediation strategies for FOX-C included placing non-hazardous debris in a newly constructed landfill and shipping all hazardous debris south for disposal. Non-hazardous debris consisted of empty barrels, wood, scrap metal and domestic waste. Hazardous debris consisted of batteries, asbestos and liquid hydrocarbons. Unexploded ordinances, consisting of blasting caps and dynamite, were also addressed.

Expenditure

2008-09 expenditures were $7,857,071.

Social, Economic and Environmental Highlights

Prior to mobilization in 2005, the contractor submitted a detailed health and safety plan which outlined the policies and safe work practices that all personnel on-site were to follow. A medic and health and a safety officer were on-site for the duration of the field season. A site orientation was given to all personnel upon arrival at site which consisted of an overview of the site activities, locations of safety and medical supplies onsite, and requirements for personal protective equipment to be worn on-site. The contractor also established a health and safety committee and held meetings twice during the season.

Future Plans

FOX-C Ekalugad Fiord has been completely remediated and is now undergoing long-term monitoring.

2.6 Program Objectives

Objective 6: Implementing a consist, cost-effective and accountable Program

Since 2002, the NCSP has developed a number of corporate procedures and tools to guide Program delivery resources. It also produces a number of reports that are used by the Program as well as other stakeholders to communicate the plans and progress of the NCSP as well as to obtain funding. The following is a list of the procedures, tools and reports currently developed and being used by the Program:

PART 1 - PLANNING

- NCSP Governance
- Development of the Contaminated Sites Management Plan
- Project Initiation
- Preparing the Detailed Work Plan (DWP)
- Project Planning Support and Project Review

PART 2 - IMPLEMENTATION

- Risk Management
- Training
- Communications
- Consultation
- Financial Management
- Information Management
- Treasury Board Download
- Procurement
- Abandoned Military Sites Protocol
- Analysis and Selection of Closure Methods for Complex Sites
- Environmental Health and Safety (EH&S) Protocol

PART 3 – MONITORING, REPORTING AND REVIEW

- Quarterly Reporting
- Annual Performance Reporting
- FCSAP Reporting via the Inter-Departmental Data Exchange Application (IDEA)
- Accounting for Costs and Liabilities
- EH&S Audits and Internal Program Reviews


Silver Bear Mine, NWT

Program Delivery

Planning, Monitoring and Reporting

The reporting strategy for the NCSP is contained within the Program's Results-based Management Accountability Framework (RMAF) and includes:

- Annual updates of the Contaminated Sites Management Plan;
- Liability and Contingent Liability Reports;
- Annual Performance Reports;
- Project Detailed Work Plans;
- Regional and overall NCSP Expenditure Variance Reports; and
- Project and Regional Quarterly Progress Reports.

The activities of the NCSP are also reported in departmental reports including:

- Departmental Report on Plans and Priorities (RPP);
- Departmental Performance Report (DPR); and
- The Sustainable Development Strategy.

Setting Priorities

The development and application of sound risk management practice is central to setting priorities. The Federal Contaminated Sites Action Plan (FCSAP) provides the mechanisms to compare and rank federal priority sites. Health Canada, Environment Canada and the Department of Fisheries and Oceans provide expert advice to custodial departments during their preliminary assessment. The final ranking is done primarily through a science-based scoring system and endorsed by an interdepartmental steering committee.

Funds are allocated on a priority basis to address sites which have the highest liability to the federal government, and which pose the greatest risk to human health and the environment. Prioritization also takes into consideration the increased risk of inaction, land claim obligations and feasibility of completing the remediation project. Many of the NCSP contaminated sites have the highest liability in the federal inventory, and as such, receive a large portion of the FCSAP funding.


Clinton Creek, YT

Corporate Risk Profile

Recognizing the importance of risk management, the NCSP developed a Corporate Risk Profile in the fall of 2007. The Corporate Risk Profile is updated on a bi-annual basis and, in the fall of 2008, the Program held risk assessment workshops in all three Regions to review, update and validate the information taking into account the 2008 field season. In 2008, the top three risks that the Program identified included:

- **Human and Knowledge Capital** – This is defined as a risk that a shortage of human and knowledge capital will prevent the Northern Contaminated Sites Program from achieving its objectives and timelines.
- **Governance** – This is defined as a risk that inadequate or poorly defined governance arrangements will allow gaps and/or duplication in Program delivery.
- **Contracting Parties** – This is defined as a risk that contracting parties may not deliver the specified deliverables on time and on budget.

Project Level Risks

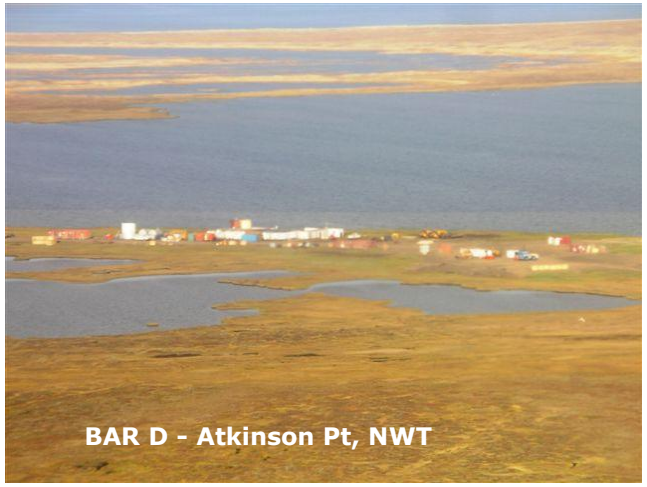
In addition to the Corporate Risk Profile, project-level risk management has been implemented by the NCSP and a risk register has been established for each of the active projects. Risk events have been categorized as: legacy risks and Program activity risks. Legacy risks include all risks directly associated with the impacts, materials and infrastructure left behind by the former mining or military operation. Program activity risks include all risks associated with project activities undertaken by the NCSP. A summary of the Legacy and Program Activity Risks are provided below.

Legacy Risks

- Public access to sites and exposure to physical hazards;
- Dam or bulkhead failures leading to sudden releases of tailings or contaminated water, or other hazardous materials;
- Other tailings-related contaminant releases; and
- Community concerns about environmental impacts and legacy issues.

Program Activity Risks

- Occupational health and safety risks (physical/chemical hazards);
- Land claimant and other stakeholder issues related to INAC procurement approach; and
- Third party activities at or near site.



BAR D - Atkinson Pt, NWT

Financial Management

A review of the Program's financial planning, allocating and management processes was conducted in 2008-09 to identify duplication in effort and process gaps. The review also looked at ways in which reporting could be streamlined and / or consolidated to improve the efficiency of resources. As a result of this review, the Program will be implementing some of the recommendations in 2009-10, including: conducting financial trend analysis on a project basis; adjusting the Program's contingency procedure; updating the annual reporting cycle to include financial reporting requirements; and developing a quarterly reporting dashboard.


Venus Mine, YT

Contaminated Sites Profile: Venus Mine

Venus Mine is located 22 km south of the village of Carcross, Yukon on the South Klondike Highway. Staking, exploration and mining activities began in 1901 and lasted until the 1980s, resulting in extensive underground workings with several adits, timber cribbed work platforms and waste rock dumps. Major commodities mined at the site included silver and gold; minor commodities identified were lead, zinc and cadmium. Claims expired in the early 1990s and the site was abandoned.

Health & Safety and Environmental Concerns

The site presented considerable health and safety risks due to open adits, steep slopes, increasingly deteriorating waste rock retaining walls and other structures due to the proximity of the highway and possible impact should the retaining walls fail.

Remediation

The remediation work included upgrading the access road, installing a gate at the site entrance, clearing and elevating rock catchment berms, dismantling of all buildings and structures, disassembling and stockpiling of all rail tracks, re-sloping of waste rock, closing of two adits with local rock material, burning of wooden debris on site and removal of hazardous waste (asbestos) and other debris.

The project required utmost attention to safety and the use of very skilled equipment operators, due to its location on steep slopes above a public highway. Two radio equipped observers monitored on-hill activities for rock fall and two flag persons controlled highway traffic according to the level of construction activities on the hill.

Expenditure

2008-2009 expenditures were $530,520. The final costs were approximately 60% less than the expected construction cost.

Social, Economic and Environmental Highlights

Given the difficult work location and complexity of the undertaking, the remediation work was done in an expedient and cost efficient manner with maximum benefits for local First Nations and other northern businesses.

Audit and Evaluation

FCSAP Evaluation

The Formative Evaluation undertaken by the Federal Contaminated Sites Action Plan (FCSAP) was conducted from March to September 2008. The Evaluation considered all FCSAP sites and projects that have been identified, assessed, and/or worked on during the two fiscal years of 2005-06 and 2006-07. A number of recommendations were made for the FCSAP but no specific recommendations for the NCSP.

INAC Evaluation

INAC's Department of Audit and Evaluation conducted an evaluation of the NAO CSP Program starting in February 2008. The focus of the evaluation was on INAC's progress, from 2002 to 2008 on the health and environmental risks and liabilities as a result of contaminated sites located on reserve land, on federal lands north of the 60th parallel and on any other lands under INAC's custodial responsibility. The NCSP has implemented action plans to address the recommendations that stemmed from the evaluation. The recommendations and associated action plans are provided in the table below:

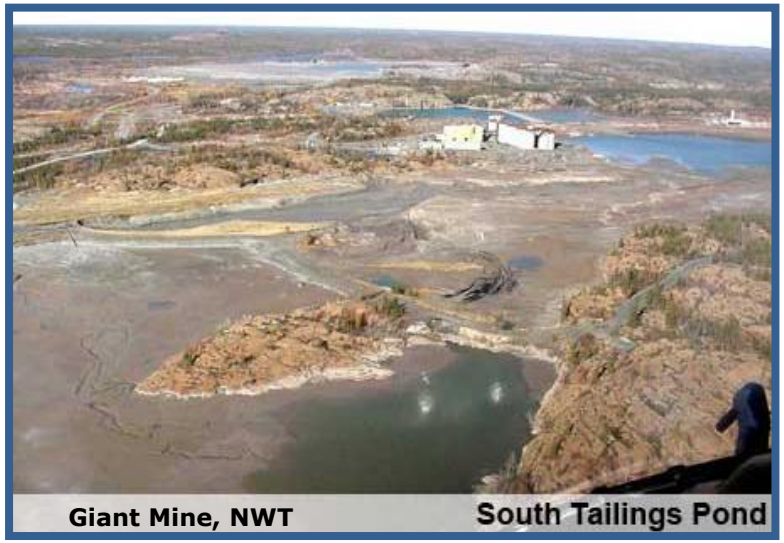
INAC Evaluation Recommendations	NCSP Response
1. Provide input to the FCSAP renewal process.	The NCSP continues to participate in working group meetings and provides input to the funding renewal process.
2. Develop a comprehensive human resources strategy for program delivery.	The NCSP will be developing a Human Resources Strategy in 2009-10 that encompasses headquarters, the Regions and partners (PWGSC).
3. Conduct program management review of IIABL-CSMP prior to program renewal.	The NCSP will share best practices with the Indian and Inuit Aboriginal Business Lines (IIABL) as required.
4. Strengthen the management and technical expertise provided by headquarters for NCSP to respond to human resourcing issues.	The NCSP will be developing a Human Resources Strategy in 2009-10 and will actively work on staffing vacant positions.
5. Consider creating a new funding authority to support departmental contaminated sites policy and programming.	The NCSP will work with the Chief Financial Officer to evaluate the merit of creating a new funding authority.

Contracting and Procurement

The NCSP is very reliant on the use of contractors to conduct site assessments and remediation work. When contracting these services the primary focus is to ensure that the requirements for a project are met taking into account value for money while incorporating socio-economic objectives for Aboriginal and other Northerners, as appropriate. To achieve this, the NCSP implemented a Procurement Strategy in 2006 focused on ensuring the right procurement balance among the proposed management team, technical merit, Aboriginal and northern participation and cost. The Strategy further aims to ensure that appropriate controls are in place for each procurement activity so that the NCSP can achieve best overall value.

The NCSP Procurement Strategy allows the Program to conduct procurement activities in a manner that is compliant with the Government of Canada Contracting Policy and processes, Trade Agreements and settled Land Claim Agreements which have the power of constitutional law. The approach is transparent, competitive and accountable while maintaining the principle of Best Value to the Crown. One of the objectives of the Strategy is to realize maximum northern and Aboriginal community, business, and individual participation and maximize economic development opportunities. These can include considerations for Comprehensive Land Claim Agreements and specific policies for Aboriginal procurement. Mechanisms and processes are in place to ensure both objectives can be met, to the extent possible, during procurement.

Most procurement activities, since the Strategy was introduced, have followed the standard approach and have generated significant participation by Aboriginals and other Northerners. In spite of this, some groups continue to express dissatisfaction with the approach and are requesting that the Strategy be modified. Effort continues to be expended to clarify the economic provisions of Comprehensive Land Claim Agreements to ensure that the Strategy is aligned with these requirements and to work with these groups to foster a better understanding of the Strategy and its benefits. Due to the scope of these activities, some of the work to clarify the economic provisions is occurring at a very high level as the ramifications can be Government of Canada-wide.



Partnerships

Due to the size and complex nature of the Program, INAC has extensive partnerships with other government departments, other levels of government, Aboriginal organizations and stakeholders. Details of the partnerships are provided below:

- Within INAC, the Northern Contaminated Sites Program collaborates with the Program staff of the Lands and Economic Development (LED) Contaminated Sites Management Program to share information. Specifically, the two organizations are participating in an initiative led by the Chief Financial Officer Sector to replace the current NAO and LED inventory systems with the Integrated Environmental Management System (IEMS) which will be launched in the fall of 2009. As a result of this initiative, both Programs will be able to use IEMS as a project management tool to upload information for the FCSI.
- Through the FCSAP program, INAC works closely with other custodial departments to achieve its objectives. These partnerships occur both informally and formally through committees and working groups. In addition, regional program staff participates in interdepartmental and regulatory working groups to review significant projects and issues.
- INAC communicates regularly with other government departments that have significant northern responsibilities, such as the Department of National Defence (DND), to ensure that adequate community and technical resources are available to deliver on project objectives. Remediation schedules are coordinated to make optimal use of resources and allow for the greatest benefit to Northerners.
- INAC works closely with Public Works and Government Services Canada (PWGSC) in the areas of project management and contracting. Because of limitations on spending authorities for construction projects, INAC cannot award contracts greater than $2 million in value. Instead, these contracts are tendered and managed through PWGSC. INAC determines the work to be carried out (statement of work); the two departments jointly review the bids that are received; and the contract award decision is also made jointly. A Memorandum of Understanding (MOU) has been in place since February 2005 between the two departments and a Service Level Agreement (SLA) was signed in the fall of 2007.
- The INAC Regional Directors and managers work closely with their colleagues from the territorial governments. For example, in the Northwest Territories, a cooperation agreement has been signed by INAC and the Government of the Northwest Territories for Giant Mine.
- In Nunavut many projects require extensive consultation with the local population and especially with affected Aboriginal Peoples. To address this need, the Region continues to consult regularly with Nunavut Tunngavik Incorporated (NTI) concerning contaminated sites in Nunavut. Mandatory consultation requirements are spelled out in the Comprehensive Land Claims Agreements (CLCAs) where claims have been settled. Best practices are used in regions where there is no settled land claim. Consultations are also conducted as part of the regulatory and environmental assessment processes.

3 FUTURE DIRECTIONS

The NCSP continues to manage the immense task of remediating INAC's northern contaminated sites. Improvements such as the creation of a new Project Management Technical Advisory Committee (PMTAC) and the development of a Corporate Risk Profile, as well as consistent funding provided through the Federal Contaminated Sites Action Plan, have resulted in significant progress. Modifications made to the NCSP program, based on recommendations made in the Program review conducted in 2006-2007, have also resulted in significant improvements to the delivery of the Program across the North.

Future directions for the Program include the following activities:

- Create a Program-level Environmental Health and Safety (EH&S) Committee with regional representatives;
- Carry out seven (7) audits in the Regions and at headquarters in 2009-10. The list of sites to be audited include for remediation projects: Cape Christian (Nunavut), Giant Mine (NWT), Colomac (NWT); and for assessment projects: Cape Peel or Ross Point (Nunavut), Spider Lake (NWT), Hidden Lake (NWT), Crest Mine/ Casino (Yukon);
- The Program will also examine EH&S implications on the Type II Mine sites which are funded by INAC but managed by the Yukon Government;
- The NCSP will continue to conduct peer reviews of Remedial Action Plans in an effort to improve the expenditure to liability reduction ratio. The NCSP will also continue to conduct a review of the liability estimates provide by the Regions as part of the year-end process for submitting information on costs and liabilities related to contaminated sites to the Receiver General and Treasury Board Secretariat (TBS); and
- The Program plans to provide guidelines to the region to ensure that the socio-economic strategies are consistent across the territories.

Thank you for your interest in INAC's Northern Contaminated Sites Program. If you have any questions about this report or require additional information, please contact Joanna Ankersmit, Director of the Contaminated Sites Program, at (819) 997-7247 or Joanna.Ankersmit@ainc-inac.gc.ca

Appendix 1: Acronyms

ADM	Assistant Deputy Minister
CSMP	Contaminated Sites Management Plan
CLCA	Comprehensive Land Claims Agreement
DG	Director(s) General
DM	Deputy Minister
DND	Department of National Defence
DPR	Departmental Performance Report
DTA	Devolution Transfer Agreement
DWP	Detailed Work Plan
EH&S	Environment, Health and Safety
FCSAP	Federal Contaminated Sites Action Plan
IIABL	Indian and Inuit Aboriginal Business Lines
INAC	Indian and Northern Affairs Canada
MOU	Memorandum of Understanding
NAO	Northern Affairs Organization
NCS	National Classification System
	Class 1 High Priority for Action, Class 2 Medium Priority for Action, Class 3 Low Priority for Action
NCSP	Northern Contaminated Sites Program
NWT	Northwest Territories
PSAB	Procurement Strategy for Aboriginal Business
PWGSC	Public Works and Government Services Canada
RDG	Regional Director(s) General
RMAF	Results-Based Management Accountability Framework
RPP	Report on Plans and Priorities
SDS	Sustainable Development Strategy
SLA	Service Level Agreement
WM	Waste Management
WMP	Waste Management Program
YG	Yukon Government

Appendix 2: Definition of Terms

Care and Maintenance

Care and maintenance activities at high-risk sites generally include, but are not limited to:

- Collecting, pumping and treating contaminated water from temporary holding areas;
- Monitoring pump systems to ensure transfer volume flow rates are as required;
- Carrying out various inspections, water sampling, shipping and reporting to comply with regulatory compliance;
- Maintaining site security;
- Supplying sufficient hydro, diesel and gasoline to operate facilities;
- Maintaining roads and airstrips for supply and personnel access;
- Maintaining, repairing and/or constructing physical infrastructure that is integral to preventing an event that will lead to an uncontrolled release of contaminants; and
- Inspecting and repairing facilities critical to water treatment and site compliance (i.e. pumps, generators, furnaces, etc.).

Monitoring

Water and land-use permits associated with work being carried out at sites in the northern territories, INAC is required to carry out monitoring activities. These monitoring activities are non-discretionary and must continue to maintain legal compliance.

Regulatory Approvals

Regulatory approvals are essential to carrying out care and maintenance and other activities. The discharge of water for instance at Faro, Colomac and Giant are subject to water licensing processes. This component includes costs associated with the process of obtaining water licences, land-use permits, etc.

Consultations

This component includes any costs associated with organizing workshops, meetings, printing information sheets, etc.

Site Investigation and Assessment

This includes any environmental studies (including ecological and human health risk assessments) that need to be completed to advance the understanding of the conditions of the site and to be able to put together a closure plan.

Site Remediation

Any activity deemed part of site clean-up. This includes many types of activities, such as removal of contaminated soil and hazardous material, destruction of buildings, etc.

Project Management

The project organization and systems required to manage the work including planning, estimating, reporting, contracts, resources, financial, quality and risk.

Appendix 3: Regional Reports

Table 7: Regional Reports: Northwest Territories

NWT KEY PERFORMANCE MEASURES		2006-07	2007-08	2008-09
FINANCIAL				
Total Liability	*$*	$482,079,746	$623,537,014	$618,594,821
Contingent Liability	*$*	$41,808,749	$90,521,751	$56,884,535
Expenditures	*$*	$55,105,427	$46,155,769	$43,184,684
CLASSIFICATIONS				
NCS 1	*#*	20	22	16
NCS 2	*#*	10	13	13
Risk Management/Monitoring	*#*	3	4	8
Contingent Liabilities	*#*	15	13	13
ENVIRONMENT, HEALTH & SAFETY				
Safety				
Lost-time Accidents (LTAs)	*total*	10		1
LTA Time Lost (person-h)	*person-h*	75		
Incidents, Inspections and Audits				
Inspections	*# performed*	16	74	88
	non-compliances	1	15	
Audits	*# performed*	7	8	7
	non-compliances	20		
EHS Training				
Awareness Training (EHS Policy & Procedures)	*person-h*	299	1180	585
HAZWOPER	*person-h*	400		503
WHMIS	*person-h*	335	10	551
First Aid	*person-h*	604	538	540
Wildlife Safety	*person-h*	546	129	139
Water Safety	*person-h*	648	15	54
Fire Response	*person-h*	133	100.5	663
SOCIO-ECONOMIC				
Employment				
Total employment	*#*	710	687	981
	person-d	35,989	16,778	180,897
Northern employment (includes Aboriginal)	*#*	382	451	620
	person-d	25,689	13,831	132,309
Northern Aboriginal employment	*#*	216	295	220
	person-d	14,964	10,543	92,951
Southern Aboriginal employment	*#*	2		1
	person-d	88		1
Workforce Training				
Total training	*# persons*	126	1,196	156
	Duration (h)	3,265	25,676	3,306
Northern training	*# persons*	112	868	230
	Duration (h)	2,957	23,851	5,678
Northern Aboriginal training	*# persons*	86	266	90
	Duration (h)	2,041	22,715	1,839
Purchase of Goods and Services				
Northern suppliers (includes Aboriginal)	*#*	459	700	554
	$	$32,483,506	11,713,446	9,808,368
Northern Aboriginal suppliers	*#*	79	83	91
	$	$21,518,720	8,068,257	6,264,533
CONSULTATION				
Community tours and meeting	*#*	32	50	31
	Audience (#)	288	918	733
Workshops	*#*	5	2	3
	Audience (#)	63	29	34
Site tours	*#*	26	17	25
	Audience (#)	177	209	230

Table 8: Northwest Territories Expenditures by Site

Site Name	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009
NORTHWEST TERRITORIES						
American Yellowknife				$27,505		
Atkinson Point			$306,821	$1,942,120	$4,804,724	$617,113
Axe Point	$32,500	$3,056	$396,477	$510,991	$1,851,641	$73,103
Bullmoose			$38,691	$13,065	$196,771	$353,226
Canol Trail					$107,869	$218,601
Cat and Grainger				$87,485		
Colomac	$16,534,508	$10,846,117	$11,561,704	$24,953,965	$11,691,005	$13,208,983
Consolidated Beta Gama		$30,814				
Contact Lake	$7,200			$657,671	$752,199	$0
Crestaurum				$23,629		
Discovery	$405,922	$3,647,465	$4,883,733	$899,663	$1,124,725	$413,794
El Bonanza		$33,666	$1,500	$566,152	$597,041	
Giant Mine	$8,268,349	$9,696,288	$9,606,995	$14,385,594	$10,752,398	$11,726,383
Great Bear Lake*						$2,924,407
Hidden Lake Mine			$35,446	$146,051	$162,538	$352,042
Horton River	$41,000	$22,528				
Indore Gold Mine				$415,422	$312,706	$109,988
Jackson Islands			$28,492			
Jean Marie River	$14,000			$17,693	$73,489	$588,463
Johnson Point			$258,064	$1,962,397	$478,621	$5,045,868
Kittigazuit Bay	$836,000	$763,563	$46,870			
Liten				$35,041		
North Inca Mine			$48,324	$158,395	$352,507	$729,368
Old Parr #1				$31,541		
Outpost Island			$42,446	$10,486		
Port Radium	$2,126,000	$1,859,413	$1,860,255	$3,626,773	$4,191,720	$1,110,594
Rayrock	$105,000	$111,362	$63,291			
Ruth Gold Mine			$39,819	$13,759	$121,508	$306,797
Sawmill Bay					$302,151	
Silver Bear	$38,800	$1,130,342	$1,448,979	$1,375,966	$1,340,720	negative value
Sour Gas Wells			$47,715	$45,000		
Spider Lake					$74,930	
Thomson - Lundmark				$46,907		
Tundra	$166,451	$1,775,778	$3,069,708	$2,165,224	$5,222,493	$1,605,855
Victoria Island Assessments				$78,954		
West Bay				$33,451		
Water Monitoring				$25,153		
Monitoring			$125,876	$253,469	$154,278	$155,878
NWT Site Assessments						$1,915,612
NWT Admin		$6,617	$0	$119,909	$10,122	$1,728,599
Sub-Total	**$28,575,730**	**$29,927,009**	**$33,911,206**	**$54,601,926**	**$44,676,156**	**$43,184,674**

*** Includes: El Bonanza, Sawmill Bay, Silver Bear from 2009-09 onward**

Table 9: Regional Reports: Yukon

YUKON KEY PERFORMANCE MEASURES		2005-2006	2006-07	2007-08	2008-09
FINANCIAL					
Total Liability	$	$386,520,128	$621,644,970	$611,707,916	$617,822,431
Contingent Liability	$	$580,440,157	$468,640,871	$525,052,174	$217,614,374
Expenditures	$	$23,632,934	$20,156,992	$22,228,154	$21,567,121
CLASSIFICATIONS					
NCS 1	#	8	8	8	5
NCS 2	#	1	1	1	
Risk Management/Monitoring	#	4	4	4	4
Contingent Liabilities	#	1	1	1	1
ENVIRONMENT, HEALTH & SAFETY					
Safety					
Lost-time Accidents (LTAs)	*total*		3	4	
LTA Time Lost (person-h)	*person-h*		170	600	
Incidents, Inspections and Audits					
Inspections	*# performed*	4	3		
	non-compliances				
Audits	*# performed*		1		
	non-compliances				
EHS Training					
Awareness Training (EHS Policy &	*person-h*		104	118	24
HAZWOPER	*person-h*				
WHMIS	*person-h*				
First Aid	*person-h*			400	
Wildlife Safety	*person-h*			6	16
Water Safety	*person-h*				
Fire Response	*person-h*			20	
SOCIO-ECONOMIC					
Employment					
Total employment	#	124	116	125	178
	person-d	1,038	10,936	9,377	7,890
Northern employment (includes Aboriginal)	#	124	119	125	175
	person-d	1,038	11,176	9,377	7,578
Northern Aboriginal employment	#	40	37	35	58
	person-d		2,815	2,308	1,835
Southern Aboriginal employment	#				
	person-d				
Workforce Training					
Total training	*# persons*	5	54	31	70
	Duration (h)		3,546	628	1,430
Northern training	*# persons*	3	44	30	20
	Duration (h)		3,411	436	38
Northern Aboriginal training	*# persons*	4	10	1	17
	Duration (h)		258	192	
Purchase of Goods and Services					
Northern suppliers (includes Aboriginal)	#	20	55	87	91
	$	$11,803,000	$5,929,337	8,344,982	5,857,784
Northern Aboriginal suppliers	#	2	7	9	2
	$	$1,260,000	$1,558,150	1,234,076	676,000
CONSULTATION					
Community tours and meeting	#	33	6	3	3
	Audience (#)			23	4
Workshops	#		1		
	Audience (#)				
Site tours	#	2	2	3	2
	Audience (#)		18	9	8

Table 10: Yukon Expenditures by Site

Site Name	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009
YUKON						
Arctic Gold & Silver	$7,000	$439				
Brook's Brook	$8,000	$3,803				
Clinton Creek	$863,235	$1,142,797	$428,000	$501,796	$184,607	$283,510
Faro	$14,068,369	$14,244,758	$15,644,007	$14,008,526	$15,701,276	$14,707,549
Hydrometric Stations	$113,000	$6,172				
Ketza River Mine		$8,415				
Mount Nansen	$953,088	$1,331,686	$1,319,400	$1,565,288	$1,327,506	$2,045,312
Peel River	$14,000					
Snag	$8,000	$2,615				
UKHM		$3,766,471	$4,281,261	$2,844,694	$3,382,054	$3,360,984
Venus Tailings	$6,000	$551				
Yukon Devolution*	$982,000	$536,367	$1,005,120	$725,581	$930,864	$757,930
Water Monitoring					$2,053	$91
Monitoring				$11,724	$24,207	$11,813
Yukon Admin		$1,059	$2,855	$1,232	$100,227	$399,933
Sub-Total	**$17,022,692**	**$21,045,133**	**$22,680,643**	**$19,658,841**	**$21,652,794**	**$21,567,122**

Table 11: Regional Reports: Nunavut

NUNAVUT KEY PERFORMANCE MEASURES		2006-07	2007-08	2008-09
FINANCIAL				
Total Liability	*$*	$139,314,007	$163,866,827	$192,259,134
Contingent Liability	*$*	$55,500	$3,006,249	$354,900
Expenditures	*$*	$21,703,310	$18,175,977	$18,195,913
CLASSIFICATIONS				
NCS 1	*#*	21	20	15
NCS 2	*#*	11	12	20
Risk Management/Monitoring	*#*	3	3	6
Contingent Liabilities	*#*	4	6	8
ENVIRONMENT, HEALTH & SAFETY				
Safety				
Lost-time Accidents (LTAs)	*total*	6	4	2
LTA Time Lost (person-h)	*person-h*	86	72	324
Incidents, Inspections and Audits				
Inspections	*# performed*	10	3	
	non-compliances		5	
Audits	*# performed*	1	2	
	non-compliances		10	
EHS Training				
Awareness Training (EHS Policy &	*person-h*	216	180	24
HAZWOPER	*person-h*	600	320	510
WHMIS	*person-h*	109	27	
First Aid	*person-h*	326	233	144
Wildlife Safety	*person-h*	53	26	12
Water Safety	*person-h*	38	14	
Fire Response	*person-h*	49	31	
SOCIO-ECONOMIC				
Employment				
Total employment	*#*	229	215	112
	person-d	26,393	6,270	2,864
Northern employment (includes Aboriginal)	*#*	190	178	128
	person-d	24,856	4,676	2,479
Northern Aboriginal employment	*#*	188	176	124
	person-d	23,717	4,554	2,431
Southern Aboriginal employment	*#*	2		
	person-d	77		
Workforce Training				
Total training	*# persons*	234	132	29
	Duration (h)	2,431	1,078	828
Northern training	*# persons*	176	91	23
	Duration (h)	1,924	1,053	828
Northern Aboriginal training	*# persons*	175	88	19
	Duration (h)	1,920	1,061	828
Purchase of Goods and Services				
Northern suppliers (includes Aboriginal)	*#*	175	142	176
	$	$3,931,896	4,790,601	8,169,949
Northern Aboriginal suppliers	*#*	112	95	144
	$	$3,607,493	3,901,672	6,961,801
CONSULTATION				
Community tours and meeting	*#*	6	9	6
	Audience (#)	165	205	146
Workshops	*#*			1
	Audience (#)			6
Site tours	*#*	3	3	6
	Audience (#)	30	9	62

Table 12: Nunavut Expenditures by Site

Site Name	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009
NUNAVUT						
Akpatok Island	$2,500					$8,215
Bear Island					$569,695	$285,164
Borup Fiord				$48,483		
Bray Island			$11,500	$573,519	$12,449	
Cape Christian	$29,760			$336,853	$556,197	$1,243,195
Clifton Point					$634,132	$225,997
Cullaton Lake			$84,512			
Durban Island	$29,400					
Ekalugad Fiord	$29,610	$1,502,659	$3,365,680	$6,686,801	$5,566,612	$7,857,071
Eureka Sound North #2				$48,483		
Fat Lake			$71,410			
Flagler				$48,483		
Hat Island						$671,930
Iqaluit Hospital 541			$862,864			
Lincoln Bay				$48,546		
North Rankin Inlet			$2,225			
Otter and Montgomery Lake			$69,264			
Padloping Island	$28,550					
Radio Island			$136,124	$4,608,267	$3,633,091	
Resolution Island	$12,766,714	$10,220,563	$9,939,585	$2,984,507		
Roberts Bay	$75,000		$568,710	$264,929	$581,717	$4,485,246
Ross Point						
Sarcpa Lake	$104,247	$1,303,185	$3,611,508	$5,242,630	$5,699,280	$1,630,909
Simpson Lake			$396,717	$104,266	$299,926	$400,387
Strathcona Fiord				$48,483		
Site Assessment**		$225,000			$265,614	$1,010,502
Water Monitoring				$42,061		
Monitoring			$30,268		$278,189	$277,916
Nunavut Program Development	$32,566					
Nunavut Admin					$29,532	$99,380
Sub-Total	**$13,065,781**	**$13,251,407**	**$19,150,366**	**$21,086,310**	**$18,126,435**	**$18,195,912**