



# **Northern Affairs Organization Contaminated Sites Program**

## **PERFORMANCE REPORT**

**2007 - 2008**



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## INTRODUCTION

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### Management Statement – ADM Northern Affairs Organization (NAO)

I am proud to present the Northern Contaminated Sites Program's seventh annual Performance Report for the 2007-2008 fiscal year. This 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, including environmental and socio-economic benefits.

Unlike many other federal contaminated sites that are the result of federal operational activities, INAC's portfolio of contaminated sites in the North originated from private sector resource development and national defence activities on federal Crown lands. These sites date back over half a century, long before the environmental impacts of such activities were adequately understood or managed. INAC has recognized since the late 1980s that the potential for risks to human health and the environment from contaminated sites in the North must be addressed and has directed considerable resources to care and maintenance, environmental site assessment, remediation and monitoring of these sites.

The NCSP is a decentralized program which is implemented in the three territories. Primary front-line responsibility rests in each region, with Headquarters providing program management support and policy direction. The NCSP's reporting strategy is contained within the program's Results-Based Management and Accountability Framework (RMAF). A number of reports are produced each year, designed to meet various federal policy requirements and to monitor implementation progress. The activities of the NCSP are also reported in various departmental reports including the Departmental Report on Plans and Priorities (RPP), Departmental Performance Report (DPR), the Strategic Outcomes Plan, and the Sustainable Development Strategy.

The positive results contained in the March 2008 Office of Auditor General (OAG) audit show that the NCSP has progressed in identifying and assessing its contaminated sites. The OAG report also indicated that the NCSP has given high importance and effort to four of its abandoned mines, Colomac, Faro, Giant, and Mount Nansen, and has continued additional care and maintenance and remediation activities to deal with urgent issues at other sites.

The NCSP has implemented many of the recommendations of the independent program review completed in 2006-2007 resulting in significant improvements in the delivery of the program. In addition, the NCSP has increased its efforts in addressing the negative environmental impact of contaminated sites while maximizing the social and economic benefits accrued as a result of this work. In 2007-2008, numerous sites benefited from federal investments and local socio-economic benefits resulting in the employment of over 1,000 employees, many of whom were northern Aboriginal. Over the last year, more than 60 workshops and community consultations were held ensuring that over 1,100 people were able to provide input into the delivery of the NCSP.

I would like to thank our employees and partners for making 2007-2008 a success, and encourage them to persist with their efforts and dedication to managing northern contaminated sites.

I invite you to read this year's Performance Report for a greater understanding of NCSP's activities and progress in 2007-2008. To ensure that we continue to meet the needs of our stakeholders, I also invite you to provide comments and feedback on this report.

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

## Report Coverage

This is the seventh 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 NCSP objectives for the period from April 1, 2007 to March 31, 2008. This report outlines activities related to project and program management, and provides regional reports that highlight site-level case studies as well as regional performance data. 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 ([www.ainc-inac.gc.ca/ps/nap/consit/](http://www.ainc-inac.gc.ca/ps/nap/consit/)). Please note that project sites and information management systems are in various stages of development and there are some limitations with data (i.e. not all sites reporting on all metrics). INAC has attempted to address these limitations and will continue to improve data management in the coming years.

## Profile of NAO Northern Contaminated Sites Program

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. Through the NCSP, INAC is responsible for contaminated sites located on reserve lands, on federal lands north of the 60<sup>th</sup> parallel, and on any other lands under INAC's custodial responsibility. In 2002, the NAO developed a Contaminated Sites Management Policy to ensure that management 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 strategic objectives that guide the program are:

1. To meet federal legal obligations;
2. To require that suspected contaminated sites be assessed in a timely and cost-effective manner;
3. To provide a risk management based framework for guiding planning and activities;
4. To remediate 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;
5. To promote social and economic benefits that may accrue to First Nations, Inuit and Northerners; and
6. To promote the federal "polluter pay" principle.

The Deputy Minister of INAC and the Assistant Deputy Minister of the NAO are responsible for the NCSP. Three regions – the Yukon, Northwest Territories (NWT), and Nunavut – are primarily responsible for implementing the NCSP. Headquarters (HQ) leads the NCSP strategic planning, policy making, and resource acquisition, and provides support to the regions. Key aspects of the NCSP management and governance structure can be found online at [www.ainc-inac.gc.ca/ps/nap/consit/gover/mangov\\_e.html](http://www.ainc-inac.gc.ca/ps/nap/consit/gover/mangov_e.html).

In the NWT and Nunavut, NAO holds direct responsibilities for care and maintenance, assessment, and remediation of identified and suspected contaminated sites. Within the Yukon, the program's activities are guided by the requirements of the Devolution Transfer Agreement between the federal and Yukon governments and responsibilities for contaminated sites are shared. More information on this agreement can be found online at [www.ainc-inac.gc.ca/nr/prs/s-d2001/01247bk\\_e.html](http://www.ainc-inac.gc.ca/nr/prs/s-d2001/01247bk_e.html).

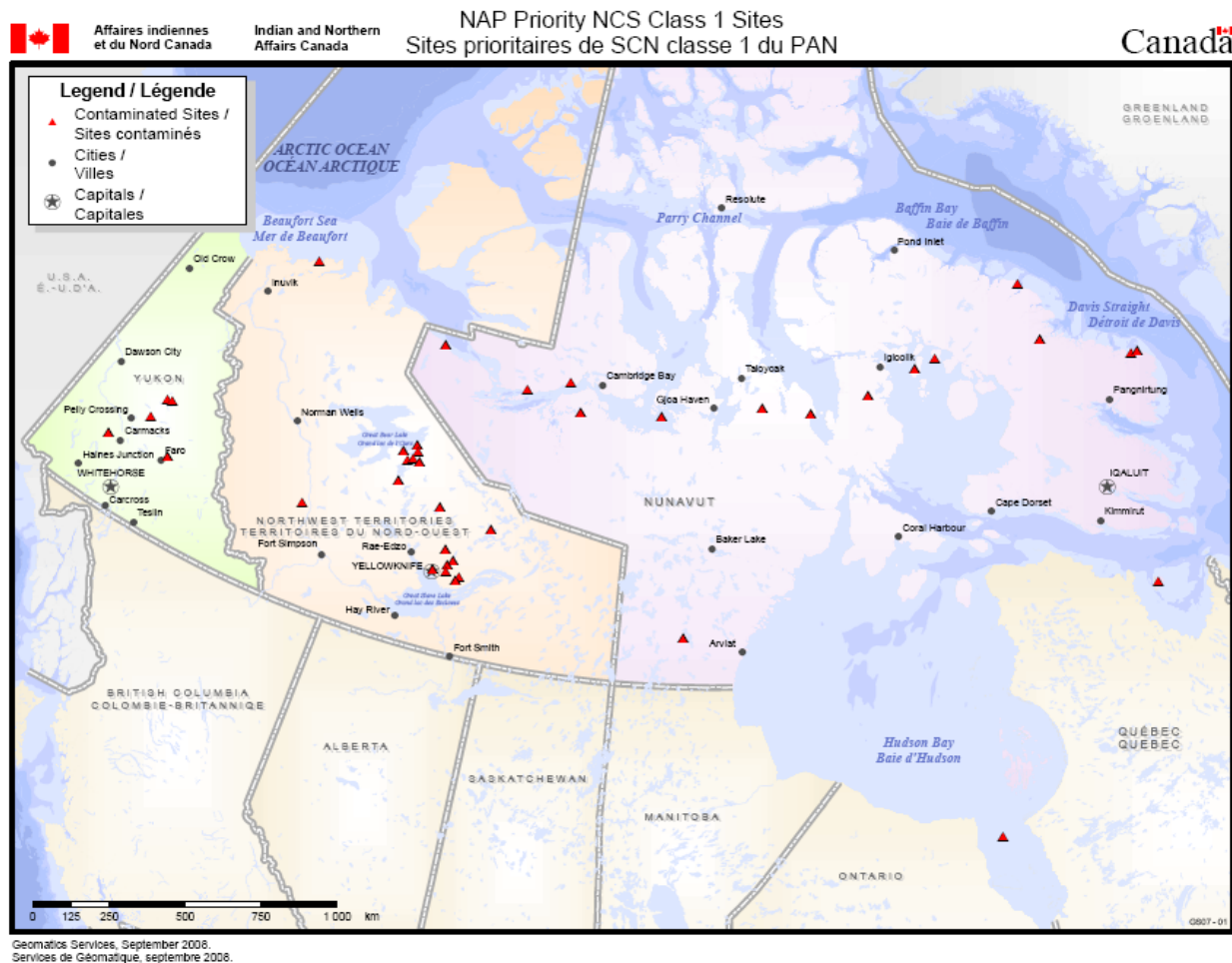
Over 60 INAC staff at HQ and in the regions contributed to the success of the NCSP in 2007-2008, as summarized in **Table 1**.

**Table 1: NCSP Employment, 2007-2008**

	Total Employment
<b>Yukon</b>	7.5
<b>NWT</b>	42.5
<b>Nunavut</b>	4.75
<b>HQ</b>	10.5
<b>TOTAL EMPLOYMENT</b>	<b>65.25</b>

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, 2008, 437 contaminated sites (assessed and suspected) in the North require action, such as assessment, remediation or risk management. Of these 437 sites, 40 are considered "priority sites"<sup>1</sup> (down one from last year) and are the focus of many of NCSP's activities (see **Figure 1**).

**Figure 1: Map of Priority NCS 1 Sites**



<sup>1</sup> Priority sites are defined as those with a National Classification System (NCS) 1 classification, but do not include sites under risk management/monitoring or contingent liabilities.

**CHALLENGES OF MANAGING CONTAMINATED SITES IN THE NORTH**

Factors unique to managing contaminated sites in the North, such as those related to climate, access, capacity, risk, and scope, contribute to the significant resources required to run the NCSP. Some challenges unique to the North are listed below, highlighting the need for addressing these sites in a tailor-made approach for northern realities.

***Climate Challenges***

- Sensitive ecology, extreme temperatures, and the existence of permafrost soils and groundwater.
- Shorter operating seasons due to short summers and reliance on winter roads.
- Increasingly unpredictable northern climate, which affects both the summer season and winter roads and increases weather-related risks (climate change).

***Access/Economic Challenges***

- Logistical challenges accessing remote locations - typical mobilization and demobilization costs are in the order of millions of dollars.
- Extremely high cost of materials, labour and logistics due to the long distances involved and a rapidly changing economy.
- Equipment often having to be leased or contracted for an entire year even if it is only needed for a few months.

***Capacity/Jurisdictional Challenges***

- Difficulty of finding and retaining skilled labour in the North.
- Limited capacity of northern partners (knowledge, experience and resources) to participate in assessment and remediation activities.
- Dynamic and evolving jurisdictional landscape (land claim interim measures, Approvals-in-Principle and final agreements that may have overlapping interests; devolution; split surface/subsurface responsibilities).

***Risk Challenges***

- Reliance of Northerners on traditional foods in territories where risks to human and environmental health may exist.

***Scope Challenges***

- Large scope and scale of some contaminated sites, in particular abandoned mines.
- Requirement for an ongoing presence at large sites to operate critical systems and monitor conditions and controls.



## NORTHERN CONTAMINATED SITES MANAGEMENT

This report presents NCSP’s performance in two key areas:

- Project management: activities undertaken at the site-level to manage contaminated sites; and
- Program management: activities undertaken to ensure the NCSP runs effectively and efficiently.

### PROJECT MANAGEMENT

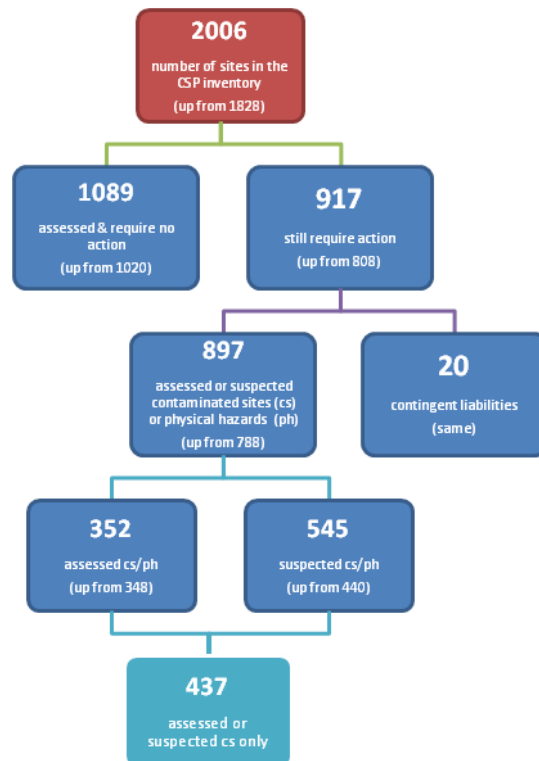
This section provides updates on contaminated sites project management information under NCSP jurisdiction, including:

- Changes in the number and classification of contaminated sites;
- Overall spending;
- Status of priority sites;
- Highlights of site-level progress;
- Contaminated sites liability; and
- Social, economic and environmental performance data.

### NCSP Contaminated Sites

There are a number of sites in the NCSP inventory at various stages of activity. A total of 2006 sites exist in the inventory, up from 1828 in 2006-2007. Of these, 1089 or 54% have been assessed and require no action or remediation is done (up from 1020 last year), and 917 sites or 46% require action (up from 808 last year). **Figure 2** provides a further breakdown of the sites that require action. Part of the increase in the number of suspected sites is due to the fact that Nunavut reclassified a number of sites in the contaminated sites database in 2007-2008.

**Figure 2: Status of Sites in the NCSP Database**



**Table 2** illustrates the history of how sites in the NCSP have been classified according to the National Classification System (NCS). There has been an increase of five sites to the NCS list compared to the previous year – one NCS 1 and three NCS 2’s in the NWT and one NCS 2 in Nunavut. These five sites were added to the NCS list after they were determined, following the completion of site assessments in 2007-2008, to be contaminated and under INAC’s jurisdiction.

**Table 2: NCSP Sites in CCME Classifications, 2003-2007**

CLASS	2003-04	2004-05	2005-06	2006-07	2007-08
1	43	44	44	49	50
2	14	19	19	22	26
3	9	5	0	0	0
N	0	0	0	0	0
I	0	0	0	0	0
<b>TOTAL</b>	<b>66</b>	<b>68</b>	<b>63</b>	<b>71</b>	<b>76</b>

Note: Sites under risk management and monitoring maintain their NCS designation and are included in this table. However, these sites are not as high a priority for the NCSP and are not considered as part of the group of "priority sites" referenced throughout this report.

**Overall Spending**

The NCSP budget was \$115 million in 2007-2008, 88% of which was supplied by Treasury Board through the Federal Contaminated Sites Action Plan (FCSAP) (see **Table 3**).

**Table 3: Source of Funds, 2004-2008**

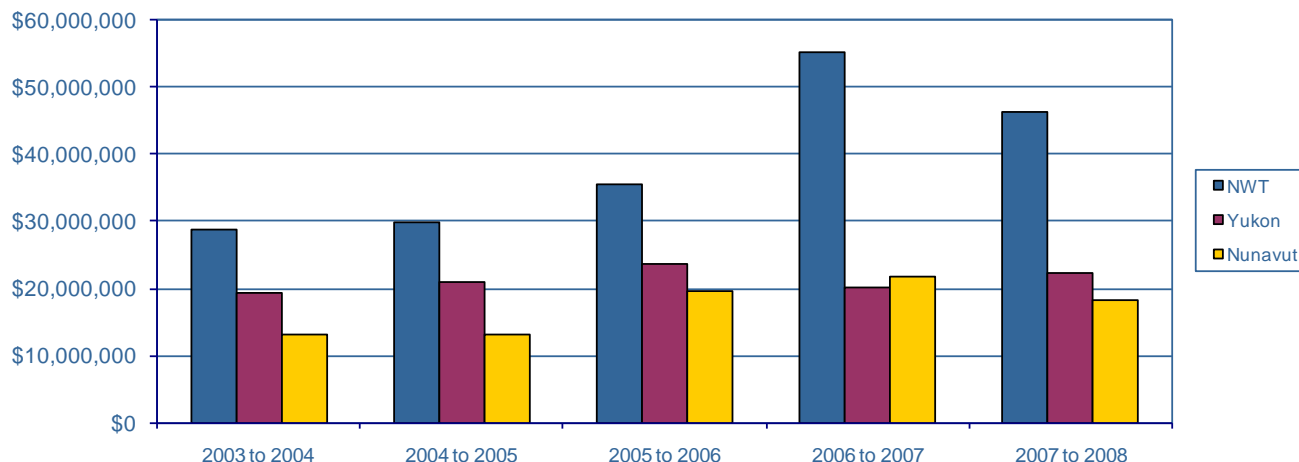
SOURCE OF FUNDS	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008
INAC	\$22,468,514	\$22,000,000	\$18,499,924	\$18,500,000	\$13,510,605
FCSAP*	\$39,439,200	\$45,331,784	\$72,073,651	\$92,441,194	\$101,703,175
<b>TOTAL</b>	<b>\$61,907,714</b>	<b>\$67,331,784</b>	<b>\$90,573,575</b>	<b>\$110,941,194</b>	<b>\$115,213,780</b>

\* Treasury Board established the Federal Contaminated Sites Action Plan (FCSAP) in 2003-2004 to address the significant financial and environmental liabilities associated with federal contaminated sites. Prior to FCSAP, Treasury Board administered funds through the Federal Contaminated Sites Assessment Initiative (FCSAI).

**Figure 3** identifies the program’s expenditures over the last five years. NCSP spent \$89.1 million on contaminated sites in its inventory during the reporting period.<sup>2</sup> Financial resources for 88% of the total expenditures were supplied through FCSAP. Up to 2006-2007, expenditures increased each year as NCSP completed more site assessments and carried out more extensive site remediation work. This trend of increasing expenditures did not carry over into the 2007-2008 fiscal year. Total expenditures in 2007-2008 dropped by 10% (\$10.2 million dollars) from 2006-2007.

<sup>2</sup> Of the initial surplus of \$26 million, just over \$1 million of INAC-contributed funds were returned to the department for other work. Of the remaining amount (\$25 million), NCSP was allowed to carry forward \$4.5 million to the 2008-2009 fiscal year, and \$17.9 million was reprofiled; however, \$2.7 million was considered surplus or lapsed funds that NSCP did not use due, in large part, to challenges in estimating contingencies within projects and across the program. This represents 3% of the total expenditures (\$89.1 million) in 2007-2008, a decrease from the 3.4% of total expenditures lapsed in 2006-2007.

**Figure 3: Contaminated Sites Expenditures, 2004-2008**



The Yukon was the only region that experienced an increase in spending compared to the previous year (10% or \$2.1 million). Site expenditures in NWT and Nunavut both decreased by 16% in 2007-2008 from 2006-2007. However, NWT accounts for a greater overall reduction (\$8.9 million) compared to Nunavut (\$3.5 million). **Appendix 2** illustrates detailed expenditures by site.

In the NWT, reductions in spending on care and maintenance activities (\$6.4 million over the last year) account for the most significant change in expenditures. Reductions in spending on site investigation and assessment in the NWT (\$2.2 million) also help to explain the overall reduction in expenditures. A large portion of the total reduction is attributable to changes in expenditures at Colomac. Overall spending at Colomac decreased by 53% from 2006-2007 as a result of a reduced scope of work in 2007-2008 related to remediation plans that still needed to be finalized and challenges in contractor hiring. Future years will see spending increase again as plans and contractors are put in place to finish the project. To a lesser extent, reductions in expenditures also occurred at Giant and Johnson Point, as a result of decreased spending on care and maintenance activities.

In Nunavut, expenditures on site remediation decreased by \$4.1 million in 2007-2008 from 2006-2007. This decrease reflects the completion of remediation work at various sites, but also reductions in other activities such as consultations and project management as projects near closure. No expenditures occurred at Resolution Island in 2007-2008 as the site project is complete, and less spending occurred at Ekalugad Fiord and Radio Island, mostly due to reductions in site remediation work.

Increases in expenditures in the Yukon are primarily attributable to greater spending on care and maintenance activities and project management. The greatest increases in expenditures between 2006-2007 and 2007-2008 occurred at Faro and UKHM. Mount Nansen saw large drops in expenditures related to care and maintenance, regulatory approvals and remediation activity. Similarly, Clinton Creek reduced the amount spent on remediation by over \$370,000, as the site’s risk management strategy is being monitored.

**Priority Sites**

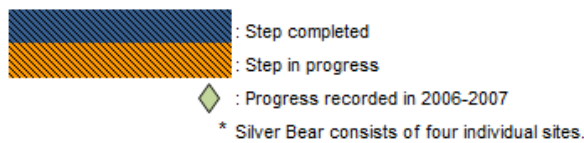
The INAC Contaminated Sites Management Policy requires program and project managers to follow the Government of Canada’s Contaminated Sites Management Working Group’s ten-step process to manage and remediate contaminated sites. Preliminary steps involve identifying and assessing sites, and later phases involve developing and implementing risk management plans. **Table 4** illustrates the progress that sites have achieved to date along these ten-steps. As of March 31, 2008, all sites have completed steps one through four. Currently, 10 sites are now proceeding with steps eight to ten. Sixteen sites moved further along in the process this year, and 15 sites remain unchanged. This

is an improvement over last year, when only 13 sites moved up in the process. One new site was added to the priority list from the NWT (Sawmill Bay) and four sites were removed because they are either NCS 2 sites or the sites are under a risk management or monitoring program and thus are not considered "priority sites" (El Bonanza, North Inca, Canol Trail and Radio Island).

Five sites dropped in their progress along the ten-step process. Giant Mine in the NWT for example, dropped from step eight to step seven as the McKenzie Valley Licensing Review Board is further reviewing whether the remediation options put forward represent the best approach. Silver Bear has dropped in progress based on an organizational decision to take advantage of the logistical proximity of other sites (El Bonanza, Sawmill Bay and Contact Lake) and treat them as one site in terms of remediation. There has been an aggressive schedule to try and progress these other sites so that they are in-line with Silver Bear's progress, and thus less work was conducted on Silver Bear over the course of the fiscal year. In Nunavut, Padloping Island and Bear Island dropped in progress as a gap analysis determined that the current site assessment data is insufficient to complete a comprehensive remedial action plan and further consultations will be necessary following the additional studies. Following the long term plan review in Nunavut it was determined that it will be economically beneficial to remediate both the FOX A-Bray Island and FOX 1-Rowley Island sites concurrently. As a result, the FOX A-Bray Island remedial action plan will have to be revised following the assessment of the FOX 1-Rowley Island site, therefore dropping FOX A-Bray Island's status on the ten-step table.

**Table 4: Current Status of Priority Class 1 Sites, 2008**

Region	Site	1- Identify site	2- Historical Review	3- Initial assessment	4- Classify site	5- Detailed assessment	6- Reclassify site	7- Develop RemRisk Mgt Plan	8- Implement RemRisk Mgt Plan	9- Confirmatory sampling	10- Monitoring
YK	Faro	█	█	█	█	█	█	█	█		
YK	Mount Nansen	█	█	█	█	█	█	█	█		
YK	United Keno Hill	█	█	█	█	█	█	█	█		
YK	Clinton Creek	█	█	█	█	█	█	█	█		
YK	Yukon Devolution	█	█	█	█	█	█	█	█		
NWT	Giant	█	█	█	█	█	█	█	█		
NWT	Colomac	█	█	█	█	█	█	█	█		
NWT	Silver Bear*	█	█	█	█	█	█	█	█		
NWT	Tundra-Taurcanis	█	█	█	█	█	█	█	█		
NWT	Discovery	█	█	█	█	█	█	█	█		
NWT	Port Radium	█	█	█	█	█	█	█	█		
NWT	BAR D - Atkinson Point	█	█	█	█	█	█	█	█		
NWT	Contact Lake	█	█	█	█	█	█	█	█		
NWT	Sawmill Bay	█	█	█	█	█	█	█	█		
NWT	Indore/Hottah Lake	█	█	█	█	█	█	█	█		
NWT	Hidden Lake Mine	█	█	█	█	█	█	█	█		
NWT	West Bay Mine	█	█	█	█	█	█	█	█		
NWT	Ruth Mine	█	█	█	█	█	█	█	█		
NWT	Bullmoose Mine	█	█	█	█	█	█	█	█		
NWT	Liten/Old Parr # 2 Mine	█	█	█	█	█	█	█	█		
NU	FOX C - Ekalugad Fiord	█	█	█	█	█	█	█	█		
NU	CAM F - Sarcpa Lake	█	█	█	█	█	█	█	█		
NU	Padloping Island	█	█	█	█	█	█	█	█		
NU	Bear Island	█	█	█	█	█	█	█	█		
NU	FOX E - Durban Island	█	█	█	█	█	█	█	█		
NU	Cape Christian	█	█	█	█	█	█	█	█		
NU	FOX A - Bray Island	█	█	█	█	█	█	█	█		
NU	CAM E - Keith Bay	█	█	█	█	█	█	█	█		
NU	Roberts Bay Mine	█	█	█	█	█	█	█	█		
NU	PIN D - Ross Point	█	█	█	█	█	█	█	█		
NU	CAM B - Hat Island	█	█	█	█	█	█	█	█		
NU	PIN B - Clifton Point	█	█	█	█	█	█	█	█		
NU	FOX 1 - Rowley Island	█	█	█	█	█	█	█	█		
NU	PIN E - Cape Peel	█	█	█	█	█	█	█	█		
NU	CAM D - Simpson Lake	█	█	█	█	█	█	█	█		
NU	Akpatok Island	█	█	█	█	█	█	█	█		
NU	Henik Lake	█	█	█	█	█	█	█	█		



## ***Site-Level Progress***

Seven project management activities take place as sites progress along the ten-step process. These activities include: care and maintenance; regulatory approvals; consultation; site investigation and assessment; site remediation; monitoring; and project management and program administration. This section of the report addresses these activities by highlighting trends in total spending and site-specific expenditures and progress.

### ***Care and Maintenance***

Total spending on care and maintenance activities in 2007-2008 was approximately \$26.4 million, down 16% from 2006-2007. Spending on care and maintenance decreased in the NWT by \$6.4 million and increased in the Yukon by \$1.5 million. The increase in the Yukon is largely attributed to Faro Mine, and the large decreases in the NWT are related to Giant, Colomac and Johnson Point, which required less care and maintenance this year. Despite decreases in spending at Giant and Colomac, these sites still account for two of the largest care and maintenance expenditures by site in 2007-2008, along with Faro. Similar to 2006-2007, expenditures at these three sites account for roughly 88% of the total care and maintenance expenditures in 2007-2008. Care and maintenance activities undertaken at Faro, Giant, and Colomac, in 2007-2008 include:

- FARO – annual risk assessment process; monitoring requirements stipulated by water licence; upgrade existing electrical infrastructure; dam safety review and dam upstream facing refurbishment.
- GIANT – manage contaminated mine and surface water; treat mine effluent; maintain site facilities; provide 24-hour security; monitoring; and risk mitigation activities.
- COLOMAC - maintain and operate heating systems, mobile and fixed equipment, potable and grey water management systems, seepage collection and pumpback systems, food preparation and handling, electrical generation and distribution systems, sanitation and housekeeping; and provide accessibility and support to contractors.

### ***Regulatory Approvals***

Total spending on regulatory approvals decreased again this year from \$922,572 in 2006-2007 to \$600,013 in 2007-2008. Over the last two years, more and more sites have completed significant portions of the regulatory approval process and are moving into later phases of contaminated sites management, such as remediation and monitoring. The most substantial decreases occurred in the Yukon at Faro and Mount Nansen, and to a lesser extent at Bray Island and Radio Island (Nunavut) and Colomac and Port Radium (NWT). Nevertheless, five sites experienced an increase in spending on regulatory approvals. UKHM in the Yukon, and Giant in the NWT experienced the greatest increases (\$161,800 and \$182,630 respectively); with Roberts Bay in Nunavut, and Discovery and Johnson Point in the NWT experiencing smaller increases. UKHM's regulatory expenses resulted from water licensing and mining land use authorization activities. Giant incurred regulatory approval expenses as a result of developing a Remediation Plan that addresses management and disposal of arsenic trioxide material which it was required to submit in conjunction with its Water Licence renewal application.

### ***Consultation***

Consultation expenditures increased from \$821,179 in 2006-2007 to \$946,676 in 2007-2008 (an increase of 15%). At the regional level, consultation spending increased in the NWT and Yukon but decreased in Nunavut. Many sites in Nunavut that spent money on consultation activities in 2006-2007 did not spend any money on consultation activities in 2007-2008. Small amounts were spent on consultation activities at many new sites (86) currently under investigation in Nunavut. This included working closely with local elders to determine the historical uses for the sites and identify any potential additional sites in proximity to the subject sites. Mount Nansen (Yukon), Colomac and Johnson Point (NWT) experienced the greatest increases in spending on consultation in 2007-2008. Three sites in the NWT that did not have any consultation expenditures in 2006-2007 (North Inca, Indore Hottah, and Jean Marie River) undertook consultations in 2007-2008. Mount Nansen, Colomac, Port Radium, and Johnson Point account for over half (56%) of the total consultation expenditures in 2007-2008. Consultation activities that took place at these sites include:

- MOUNT NANSEN – meeting with a Little Salmon Carmacks First Nation coordinator; and hosting community meetings to provide updates on site activities and discuss closure objectives and closure progress.
- COLOMAC – hiring a Tli Cho Community Liaison; hosting site tours for Tli Cho Elders; and producing and distributing various media products (including newsletters, posters and a video of the mill demolition).
- PORT RADIUM – providing ongoing updates to Deline; and hosting site tours to demonstrate remediation activities.
- JOHNSON POINT – conducting an options evaluation meeting in Sachs Harbour; hosting large community meetings to discuss the resulting preliminary remediation plan with the communities of Sachs Harbour and Ulukhaktok; and running community site tours.

### *Site Investigation and Assessment*

Site investigation and assessment expenditures decreased 21% to \$7.1 million in 2007-2008. A decrease in expenditures was experienced in the NWT, but both the Yukon and Nunavut experienced increases. Despite an overall decrease in expenditures for this activity, 83 more sites were assessed in 2007-2008 than in 2006-2007 (125 sites vs. 42 sites). Most of these assessments were Phase I historical reviews that took place at new sites in Nunavut. Assessment expenditures decreased most significantly at Colomac, Atkinson Point, Port Radium and Discovery in the NWT, and at UKHM in the Yukon. Faro continues to be the site that spends the most on site investigations and assessments, accounting for 40% of the total assessment expenditures in 2007-2008. Several assessment activities took place at Faro in 2007-2008, including: updating the water quality database; monitoring waste rock, seepage and groundwater; and completing supplementary geochemical studies. Bear Island and Clifton Point (Nunavut) and Giant and Tundra (NWT) had the next highest assessment expenditures in 2007-2008.

### *Site Remediation*

After several years of increased spending on site remediation, spending decreased by 14% in 2007-2008 from 2006-2007, which reflects the completion of various remediation tasks at some of the sites. Site remediation was the activity that experienced the greatest change in spending from 2006-2007 (a decrease of \$5.6 million), but continues to be the activity that expends the greatest amount of funds. In total, \$35.3 million was spent on remediation in 2007-2008. Every region spent less on remediation in 2007-2008 than in 2006-2007. The largest reduction occurred at Colomac, which spent \$11.4 million less than in 2006-2007. Smaller, but still substantial reductions occurred at Resolution Island (site is now completely cleaned up), Ekalgad Fiord, Radio Island, and Port Radium (site is 90% complete). Sarcpa Lake, Ekalgad Fiord, Atkinson Point (only demobilization is still required), and Tundra spent the most on remediation in 2007-2008. Remediation activities at these sites included:

- SARCPA LAKE – collecting and disposing of hazardous and non-hazardous waste; demolishing buildings and structures; completing the construction of the Secure Soil Disposal Facility; and excavating and disposing of contaminated soil.
- EKALUGAD FIORD – collecting and disposing of hazardous and non-hazardous waste; demolishing buildings and structures; constructing a landfill; installing monitoring wells; and excavating contaminated soils.
- ATKINSON POINT – excavating and remediating hydrocarbon-contaminated soils; demobilizing winter road; and collecting and transporting hazardous waste to licensed facilities.
- TUNDRA – demolishing structures; capping mine openings; constructing a landfill; and demobilizing hazardous material.

### *Monitoring*

Monitoring expenditures increased by \$181,567 (12%) in 2007-2008 from 2006-2007, demonstrating a shift in activities at some sites, such as Port Radium, that are completing remediation activities and transitioning into monitoring. The greatest increases in expenditures occurred at Colomac and Port

Radium. The majority (75%) of monitoring expenses were incurred in the NWT, most notably at Colomac, Port Radium, Giant, Discovery, and Tundra. Various monitoring activities were undertaken at these sites, including: dust monitoring, water quality monitoring, and confirmatory sampling.

#### *Project Management and Program Administration*

Both project management and program administration expenditures increased in 2007-2008, by 14% and 16% respectively. At the regional level, the Yukon spent more on both project management and program administration; Nunavut spent more on project management, but less on administration; and the NWT spent less on project management and more on program administration.

**Table 5** lists the number of sites that have undertaken select project management activities over the last five years. The number of sites that conducted site investigations and assessments and consultations in 2007-2008 jumped dramatically from 2006-2007, demonstrating NCSF's progress in assessing new sites in Nunavut. Also in 2007-2008, more sites conducted remediation activities; the same number conducted monitoring activities; and fewer engaged in care and maintenance activities.

**Table 5: Activities Undertaken at Sites, 2004-2008**

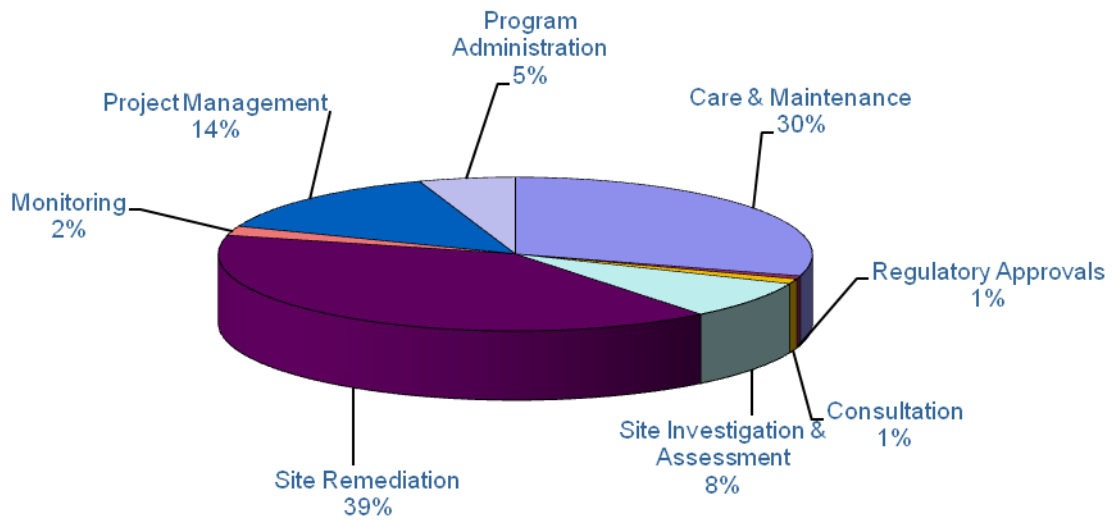
TYPE OF ACTIVITY	NUMBER OF SITES				
	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008
Care and maintenance	6	9	16	13	11
Site investigation and assessment	13	20	30	42	125
Consultation	14	13	18	20	105
Remediation	9	14	19	20	28
Monitoring	22	19	13	13	13

**Figure 4** shows the proportion of expenditures associated with each of the project management activities for both 2007-2008 and 2006-2007. As in 2006-2007, the largest proportion of expenditures in 2007-2008 was spent on site remediation. The amount of spending on regulatory approvals, consultations, and monitoring was consistent between the two years, but small increases in spending occurred for project management and program administration and small decreases in spending occurred for care and maintenance, site investigation and assessment, and site remediation in 2007-2008.

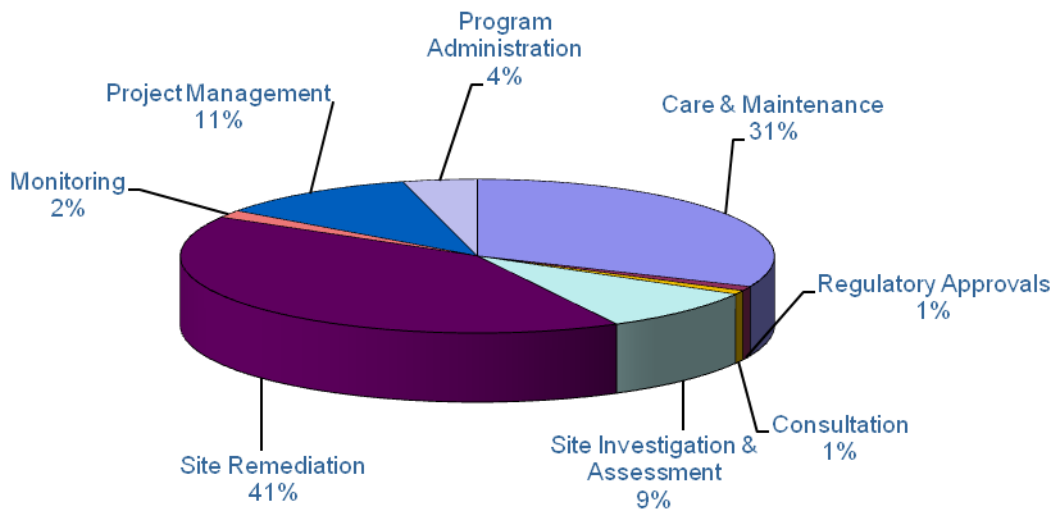


**Figure 4: Program Expenditures by Activity, 2007-2008 and 2006-2007**

**2007-2008**

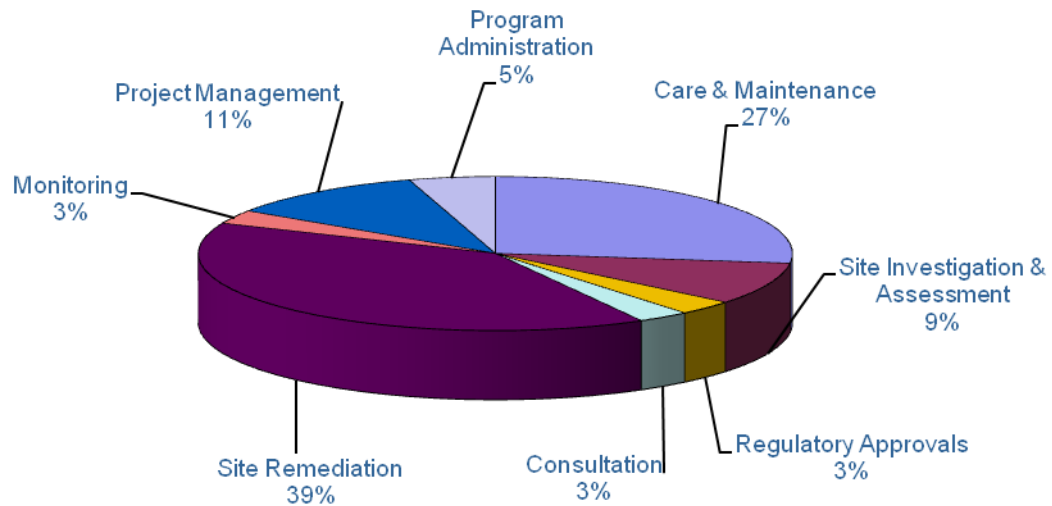


**2006-2007**



Projected costs for the NCSP in 2008-2009 are expected to be slightly more than \$101 million (see **Figure 5**). The majority of these expenditures will continue to be on site remediation; however, a smaller proportion of the total is allocated to remediation in 2008-2009 than was in 2007-2008. Correspondingly, the budget allocated to the other activities in 2008-2009 (with the exception of program administration which remains the same) has increased from 2007-2008.

**Figure 5: Budget Forecast by Activity for 2008-2009**



**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 site’s liability – are accounted for and reported in accordance with Treasury Board policy/guidelines, available online at [www.tbs-sct.gc.ca/pubs\\_pol/dcgpubs/TBM\\_142/aclds-ccpsc\\_e.asp](http://www.tbs-sct.gc.ca/pubs_pol/dcgpubs/TBM_142/aclds-ccpsc_e.asp).

The NCSP maintains up-to-date liability estimates for contaminated sites, which are based on engineering and site inspection reports. Estimates are either substantive or indicative, the former being more reliable and of higher quality. As of March 31, 2008, 22 project liability estimates (of the 76 NCS classified sites) were substantive, compared to 20 substantive liability estimates in 2006-2007, and 19 in 2005-2006.

**Liability:** obligations arising from past transactions or events, the settlement of which may result in the transfer or use of assets, or the provision of services or other economic benefits in the future.

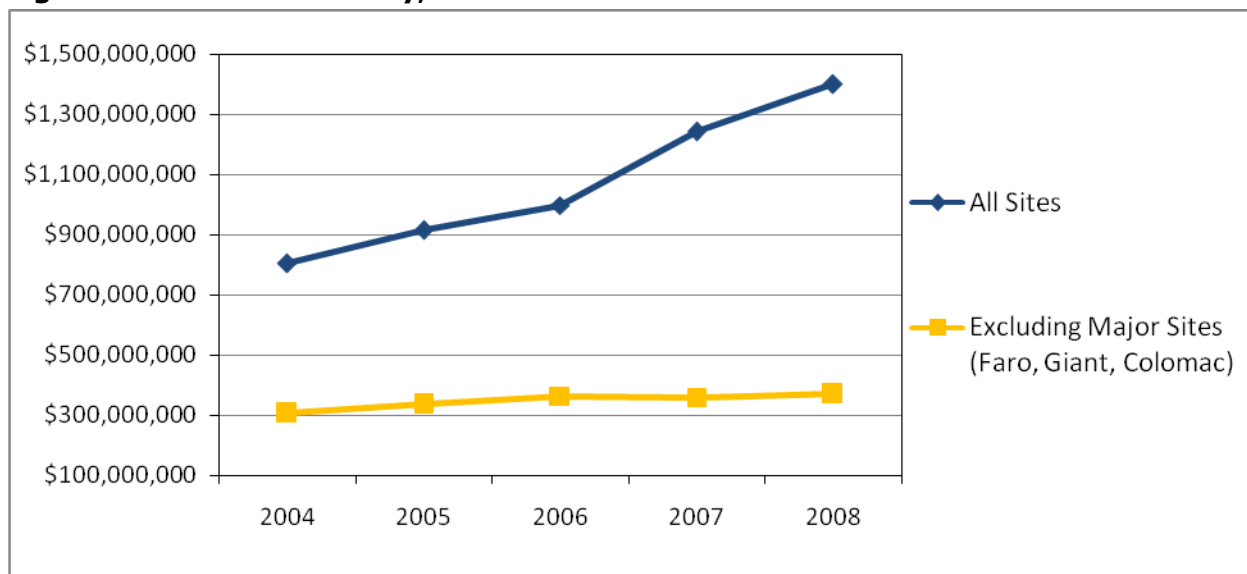
**Contingent liability:** an existing condition or situation involving uncertainty as to possible gain or loss to an organization that will ultimately be resolved when one or more future events occur or fail to occur. Resolution of the uncertainty may confirm the acquisition of an asset or the reduction of a liability or the loss or impairment of an asset or the incurrence of a liability.

*Source: INAC Contaminated Sites Management Policy*

Liability estimates tend to increase as a result of rising operating costs in the North, in addition to the completion of detailed assessments that provide more accurate information on a site's conditions. Liability estimates most often decrease as remediation work is implemented and completed.

In 2007-2008, overall liability estimates increased approximately 13% from 2006-2007 resulting in a total of about \$1.4 billion. Nearly 75% of the total liability is accounted for by three major sites: Faro in the Yukon and Giant Mine and Colomac in the NWT. **Figure 6** illustrates the liability values from the past five years, for all sites and for all sites excluding these three major sites.

**Figure 6: Trends in Liability, 2004-2008**



Regional liabilities from 2006-2007 to 2007-2008 decreased in the Yukon (-2%), and increased in both the NWT (29%), and Nunavut (18%). The decrease in liability estimates in the Yukon is largely attributable to Clinton Creek, for which the liability estimate dropped by 95% due to the completion of over \$400,000 of remediation work in 2006-2007. Liability estimates also decreased at UKHM (-9%) since many of the risks identified onsite were dealt with in 2007. Liability at Faro accounts for 86% of the total liability in the Yukon, and has remained fairly consistent since 2006-2007.

Increased liability estimates at Giant, Colomac, and Silver Bear Mines account for a significant portion of the increase in total liability in the NWT. Liability at Giant increased 39% over 2006-2007, which reflects additional costs related to the probable length of the anticipated Environmental Assessment, additional years of care and maintenance, and updated estimates of the Remediation Plan components. Liability at Colomac also increased 39% and liability at Silver Bear Mines increased slightly more than 62% over 2006-2007, both as a result of new contamination discovered at the sites. Together, Giant, Colomac, Silver Bear Mines, and Tundra (which represents a significant liability even though the estimate did not increase significantly) account for nearly 90% of the liability in the NWT. NWT sites experiencing a decrease in liability estimates include Port Radium, Atkinson Point, and Axe Point due to the successful implementation of remediation plans.

In Nunavut, the liability associated with Radio Island is now zero since site remediation is complete. Liability estimates at Sarcpa Lake decreased 81% due to the completion of some remediation activities. To a lesser extent, liability estimates decreased at Bray Island and Ekalugad Fiord by 43% and 11%, respectively. Due to better information and more reliable data, liabilities associated with other sites have increased such as Hat Island (314%), Bear Island (202%), Roberts Bay (66%), Akpatok Island (40%), and Simpson Lake (35%), and liability has been estimated for one new site, Cape Dorset 2 (Nottingham Island).

**Table 6** lists the top two sites by region with the most significant changes in liability estimates between 2006-2007 and 2007-2008. **Table 7** identifies liability estimates by region for the past five

years, regional proportions of the total liability estimate for 2007-2008, and the total percent change of each region's liability estimates from 2003 to 2008.

**Table 6: Sites with the Most Significant Changes in Liability Estimates, 2007-2008**

	Increasing Liability Estimates	Decreasing Liability Estimates
<b>Yukon</b>	Mount Nansen (42%)	Clinton Creek (-95%)
	Faro (1%)	UKHM (-9%)
<b>NWT</b>	Bullmoose (1425%)	Axe Point (-93%)
	Hidden Lake Mine (295%)	Atkinson Point (-84%)
<b>Nunavut</b>	Hat Island (314%)	Radio Island (-100%)
	Bear Island (202%)	Sarcpa Lake (-81%)

**Table 7: Liability by Region, 2003-2008**

REGION	TOTAL LIABILITY					REGIONAL PROPORTION	% CHANGE
	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2007-2008	2003-2008
	<b>Yukon</b>	\$323,386,000	\$322,407,675	\$386,520,128	\$621,644,970	\$611,707,916	44%
<b>NWT</b>	\$321,720,643	\$431,822,348	\$461,698,801	\$482,079,746	\$623,537,014	45%	94%
<b>Nunavut</b>	\$158,840,110	\$159,976,145	\$148,876,718	\$139,314,007	\$163,866,827	12%	3%
<b>TOTAL</b>	<b>\$803,946,753</b>	<b>\$914,206,168</b>	<b>\$997,095,647</b>	<b>\$1,243,038,723</b>	<b>\$1,399,111,757</b>	<b>100%</b>	<b>74%</b>

## Social, Economic and Environmental Performance

The NCSP is committed to protecting human and environmental health through managing and remediating contaminated sites in the north, but also to promoting social and economic opportunities in the north by engaging First Nations, Inuit and Northerners in the management and remediation process. The NCSP has been improving its reporting process to systematically collect social, economic and environmental performance data from sites under its management. These data are presented below.

### Environment, Health and Safety

As stated in the NCSP's Environment, Health and Safety Policy, health and safety of employees and protection of the environment are top priorities. NCSP 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 things such as wildlife and severe weather more likely. A summary of 2007-2008 NCSP EH&S performance is discussed below including: safety performance; incidents, inspections and audits; and training. Overall, fewer lost-time accidents, more inspections, and a greater number of employee training hours were reported in 2007-2008 than in 2006-2007.

### Safety Performance

Many sites did not report any lost-time accidents in 2007-2008. In total, eight lost-time accidents were reported in 2007-2008, all of which occurred at two sites. The number of accidents reported in 2007-2008 was roughly half of the number of accidents reported in the previous year. However the time lost due to the accidents in 2007-2008 was approximately double the time lost in the previous year. In addition, 84 near misses were reported at seven sites. About 80% of the near misses occurred at two sites.

**Table 8: Safety Performance, 2006-2007 and 2007-2008**

Safety		2006-2007	2007-2008
<b>Lost-time accidents (LTA)</b>	Number	19	8
	Time lost (person-h)	331	672
<b>Near misses</b>	Number	82	84
<b>Number of Sites Reporting Data by Year</b>		23 of 30	28 of 29

**Incidents, Inspections and Audits**

As in 2006-2007, five significant environmental incidents were reported in 2007-2008. The incidents that occurred were: three fuel spills (50 L, 300 L, and 757 L); one fire; and one fall into a tank. Other minor incidents that were mentioned by sites, but that were not included as "reportable" incidents, were small fuel spills (4) and wildlife encounters resulting in bear kills (2).

Seventy-seven inspections were completed at ten different sites in 2007-2008, resulting in 20 non-compliances at five of those sites. Inspections were carried out by various agencies including: INAC, Public Works and Government Services Canada (PWGSC), Workers' Compensation Board (WCB), Environment Canada and other regulators. Half of the non-compliances identified were accounted for by one site. Further, ten audits, including EH&S and internal audits, were conducted at five sites, resulting in ten non-compliances at one site. Many non-compliance issues were simply suggestions for improvement, all of which, or most of which were addressed by the sites. Seven non-compliance issues are still outstanding. These pertain to a winter road, cylinder storage, smoking, Material Safety Data Sheets (MSDS) (x2), a non-functional emergency light, and Human Resources and Skills Development Canada (HRSDC) direction to INAC and PWGSC regarding the fall into a tank.

**Table 9: Incident, Inspections and Audits, 2006-2007 and 2007-2008**

Incidents, Inspections and Audits		2006-2007	2007-2008
<b>Significant environmental incidents</b>	Number	5	5
	Volume spilled or released (L)	1,442	1112
<b>Outstanding compliance issues*</b>	Number	0	7
<b>Inspections</b>	Number performed	29	77
	Number of non-compliances	1	20
<b>Audits</b>	Number performed	9	10
	Number of non-compliances	20	10
<b>Number of Sites Reporting Data by Year</b>		23 of 30	29 of 29

\*Violation notices by regulatory agencies

**Workforce Training**

Fifteen sites reported providing training to roughly 1,460 employees in 2007-2008, which is over two times the number of employees that were reportedly trained in 2006-2007. Of the 1,460 people that were trained in 2007-2008, 73% were northerners and 26% were northern Aboriginal people. Two-thirds of all of the employees trained in 2007-2008 were trained at Giant. One training initiative that Giant undertook was mine rescue training, which included mine safety and scaling techniques.

**Table 10: Workforce Training, 2006-2007 and 2007-2008**

Workforce Training		2006-2007	2007-2008
<b>Total training</b>	Number of persons	414	1,359
	Duration (h)	9,242	27,382
<b>Northern training</b>	Number of persons	332	989
	Duration (h)	8,292	25,340
<b>Northern Aboriginal training</b>	Number of persons	271	355
	Duration (h)	4,219	23,968
<b>Number of Sites Reporting Data by Year</b>		<i>26 of 30</i>	<i>27 of 29</i>

In total, 7,278 hours of training were reported at sites in 2007-2008, up from 5,689 hours reported in 2006-2007. This change could reflect either an increase in the number of training hours held at sites between the years, possibly due to the greater number of sites undergoing remediation in 2007-2008 (28) than in 2006-2007 (20); or improved data collection and reporting by the sites from year-to-year.

As in 2006-2007, EH&S policy and procedure training was the most commonly reported training in 2007-2008: 14 sites reported 1,478 hours of training. However, more training hours (3,360 hours) were reported under the "other" category. The bulk of the training reported in the "other" category is attributable to scaling, mine rescue, site orientation, asbestos removal, and arsenic removal training that occurred at Giant mine. First aid training also accounted for a large portion of the total training that occurred in 2007-2008. Eleven sites reported conducting 1,171 hours of first aid training.

The number of hours of training reported for HAZWOPER, WHMIS, wildlife safety, and water safety substantially decreased in 2007-2008 from 2006-2007. In some cases, decreases may be due to the ways in which sites deliver training, and consequently report it. For example, one site included wildlife and water safety training in its Worker Orientation Session, thus counting this training as awareness training. Increases in the total number of hours of training occurred for both environmental training and other corrective actions.

**Table 11: EH&S Training, 2006-2007 and 2007-2008**

EH&S Training		2006-2007	2007-2008
<b>Awareness training</b>	EH&S policy and procedures (person-h)	619	1478
	<b>H&amp;S training</b>		
	HAZWOPER (person-h)	1,000	320
	WHMIS (person-h)	444	37
	First Aid (person-h)	930	1171
	Wildlife safety (person-h)	599	161
	Water safety (person-h)	686	29
	Fire response (person-h)	182	151
	Other (person-h)	775	3360
<b>Environmental training</b>	Spills response (person-h)	127	137
	Other (person-h)	316	407
<b>Other corrective actions</b>	New procedures	13	17
	Other initiatives	0	12
<b>Number of Sites Reporting Data by Year</b>		<i>23 of 30</i>	<i>29 of 29</i>

### Socio-Economic Performance

The NCSP strives to create positive social and economic impacts for people in the North as program activities are carried out. Benefits can include direct employment, support to local businesses through the procurement of goods and services, and training programs that develop local capacity and build skills. A summary of 2007-2008 socio-economic performance measures is discussed below including: employment; workforce training; and the purchase of goods and services from northern and northern Aboriginal businesses. Overall, a greater percentage of employees were northern Aboriginal, more employees received training, and a greater number of northern suppliers were hired in 2007-2008 than in 2006-2007.

#### Employment

In 2007-2008, total reported employment by NCSP sites was 1,027 people, down 28 people from the previous year. However, the number of Northerners and Aboriginal people employed in 2007-2008 increased from 2006-2007; 73% of employees were from the North, and 49% of employees were Aboriginal.

**Table 12: Employment, 2006-2007 and 2007-2008**

Employment		2006-2007		2007-2008	
<b>Total employment</b>	Number	1,055		1,027	
	person-d	73,317		32,425	
<b>Northern employment (includes Aboriginal)</b>	Number	691	65%	754	73%
	person-d	61,721		27,884	
<b>Northern Aboriginal employment</b>	Number	441	42%	506	49%
	person-d	41,495		17,405	
<b>Southern Aboriginal employment</b>	Number	4	0.4%	0	0%
	person-d	165		0	
<b>Number of Sites Reporting Data by Year</b>		26 of 30		27 of 29	

\*Aboriginal represents First Nation, Inuit, and Métis

#### Purchase of Goods and Services

Twenty-eight sites reported doing business with a total of 929 northern suppliers in 2007-2008, of which 187 were northern Aboriginal suppliers. The total value of business with northern suppliers was roughly \$25 million, 53% of which was from northern Aboriginal suppliers. Three sites in the NWT (Giant, Tundra, and Port Radium) held contracts with roughly half of the northern suppliers. Faro, UKHM, Sarcpa Lake, Port Radium, and Atkinson Point purchased 62% of the total goods and services from northern suppliers.

**Table 13: Purchase of Goods and Services, 2006-2007 and 2007-2008**

Purchase of Goods and Services		2006-2007		2007-2008	
<b>Northern suppliers (includes Aboriginal)</b>	Number	689		929	
	Value (\$)	\$42,344,739		\$24,849,029	
<b>Northern Aboriginal suppliers</b>	Number	198	29%	187	20%
	Value (\$)	\$26,684,363	63%	\$13,204,005	53%
<b>Number of Sites Reporting Data by Year</b>		26 of 30		28 of 29	

#### Stakeholder Consultation

The NCSP promotes First Nation, Inuit and Northerner participation throughout all stages of the remediation processes, including:

- Identification and assessment of sites;
- Decision making and planning; and

- Remediation and risk management.

In 2007-2008, 62 community tours and meetings were held at 19 sites. Eighteen more tours and meetings were held in 2007-2008 than in 2006-2007, and roughly 2.5 times as many people participated in community meetings and tours in 2007-2008 than in the previous year. Port Radium held the greatest number of tours and meetings (12 events), and attracted the largest number of people to its events (272 people). To maintain on-going consultation efforts at Atkinson Point, a part-time community liaison was hired in Tuktoyaktuk to listen to community members' concerns.

Twenty-three site tours were conducted at 15 sites in 2007-2008. Although the number of site tours conducted in 2007-2008 (23) was less than the number conducted in 2006-2007 (31), approximately the same number of visitors toured the sites in both years.

**Table 14: Consultation Performance Measures, 2006-2007 and 2007-2008**

Consultation Performance Measures		2006-2007	2007-2008
<b>Community tours and meeting</b>	Number	44	62
	Audience (number of persons)	453	1146
<b>Workshops</b>	Number	6	2
	Audience (number of persons)	63	29
<b>Site tours</b>	Number	31	23
	Visitors (number of persons)	225	227
<b>Media (TV, radio) events</b>	Number	28	14
<b>Press reports</b>	Number	15	12
<b>Number of Sites Reporting Data by Year</b>		<i>21 of 30</i>	<i>29 of 29</i>



## Regional Reports

### Northwest Territories

NWT KEY PERFORMANCE MEASURES			2005-2006	2006-2007	2007-2008
<b>FINANCIAL</b>					
Total Liability	\$		\$461,698,801	\$482,079,746	\$623,537,014
Contingent Liability	\$		\$41,996,767	\$41,808,749	\$90,521,751
Expenditures	\$		\$35,563,781	\$55,105,427	\$46,155,769
<b>CLASSIFICATIONS</b>					
NCS 1	#		15	20	22
NCS 2	#		10	10	13
Risk Management/Monitoring	#		3	3	4
Contingent Liabilities	#		15	15	13
<b>ENVIRONMENT, HEALTH &amp; SAFETY</b>					
<b>Safety</b>					
Lost-time Accidents (LTAs)	<i>total</i>		1	10	
LTA Time Lost (person-h)	<i>person-h</i>		15	75	
<b>Incidents, Inspections and Audits</b>					
Inspections	<i># performed</i>		5	16	74
	<i>non-compliances</i>		22	1	15
Audits	<i># performed</i>		2	7	8
	<i>non-compliances</i>		20	20	
<b>EH&amp;S Training</b>					
Awareness Training (EH&S Policy & Procedures)	<i>person-h</i>		240	299	1180
HAZWOPER	<i>person-h</i>			400	
WHMIS	<i>person-h</i>			335	10
First Aid	<i>person-h</i>		262	604	538
Wildlife Safety	<i>person-h</i>		162	546	129
Water Safety	<i>person-h</i>			648	15
Fire Response	<i>person-h</i>			133	100.5
<b>SOCIO-ECONOMIC</b>					
<b>Employment</b>					
Total employment	#		147	710	687
	<i>person-d</i>		18,662	35,989	16,778
Northern employment (includes Aboriginal)	#		92	382	451
	<i>person-d</i>		14,175	25,689	13,831
Northern Aboriginal employment	#		40	216	295
	<i>person-d</i>		9,941	14,964	10,543
Southern Aboriginal employment	#		1	2	
	<i>person-d</i>		215	88	
<b>Workforce Training</b>					
Total training	<i># persons</i>		26	126	1,196
	<i>Duration (h)</i>		644	3,265	25,676
Northern training	<i># persons</i>		17	112	868
	<i>Duration (h)</i>		286	2,957	23,851
Northern Aboriginal training	<i># persons</i>		16	86	266
	<i>Duration (h)</i>		7,351	2,041	22,715
<b>Purchase of Goods and Services</b>					
Northern suppliers (includes Aboriginal)	#		84	459	700
	\$		\$17,541,773	\$32,483,506	11,713,446
Northern Aboriginal suppliers	#		26	79	83
	\$		\$14,702,548	\$21,518,720	8,068,257
<b>CONSULTATION</b>					
Community tours and meeting	#		23	32	50
	<i>Audience (#)</i>		189	288	918
Workshops	#		5	5	2
	<i>Audience (#)</i>		354	63	29
Site tours	#		16	26	17
	<i>Audience (#)</i>		129	177	209

**ATKINSON POINT**

BAR-D Atkinson Point is located in the Western Arctic on the coast of the Beaufort Sea. Originally reserved and developed as an Intermediate DEW Line site between 1956 and 1965, subsequent uses of this site included constructing military radar and support facilities, conducting scientific research, and managing a local caribou herd.

**Health & Safety and Environmental Concerns**

The risks associated with the site were driven by the presence of polychlorinated biphenyls (PCBs) and PCB contaminated soil. An ecological risk assessment demonstrated that there was some risk to the environment, as some contaminants were being taken up by vegetation and migratory birds were using this area for nesting. Human health risks were considered to be low based on assumptions that exposure was minimal.

**Remediation**

Major site remediation work is now complete at Atkinson Point. In the summer of 2007-2008 various remediation tasks were completed, such as the excavation and on-site remediation of hydrocarbon-contaminated soils by alluving (a process that involves aeration of soils through the use of a special excavator bucket), the collection and containerization of hazardous wastes, and the demobilization of the winter road. The final steps of the site remediation – demobilization and waste disposal – will be completed by October 2008.

**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, they hired a part-time community liaison in Tuktoyaktuk to ensure there is someone in the community who people can talk to about their concerns. While developing the Remedial Action Plan in 2006-2007, a meeting was held to inform people about remediation options and to address any concerns. The remediation contract was awarded to a 100% Inuvialuit-owned company based in Tuktoyaktuk, who maintained employment and supplier objectives of 85% and 95% Inuvialuit content, respectively, for the duration of the contract.

**Future Plans**

Following final remediation and demobilization, a maximum of two annual site inspections will be required to ensure the remediation objectives are met. 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). Existing landfills and dumps were mostly removed, so long-term monitoring is not likely required.

**COLOMAC**

Colomac mine is located 220 km north of Yellowknife and 45 km west of the community of Wek'weeti. INAC assumed responsibility for Colomac, a former gold mine, in 1999.

**Health & Safety and Environmental Concerns**

Numerous human health and safety, and environmental risks exist at Colomac due to chemical and physical hazards. Chemical hazards include contaminated tailings, hydrocarbon spills, and hazardous materials within the mill complex. Physical hazards are associated with open pits, quarries, waste rock piles, buildings, and other infrastructure.

**Remediation**

INAC submitted a Remediation Plan to the Mackenzie Valley Land and Water Board in March 2004, and a new Land Use Permit and Water Licence were received in February 2005, granting INAC permission to implement the Remediation Plan. The project is currently in the remediation phase. Some remediation efforts that are currently underway include: hydrocarbon-impacted soil remediation, free product recovery, hydrocarbon-impacted water treatment, waste consolidation and non-hazardous landfill capping, quarry remediation, and waste rock berm and caribou ramp construction.

**Social, Economic and Environmental Highlights**

INAC continues to work closely with the Tli Cho people and government. Northern businesses continue to benefit from this project, and ongoing training and capacity development are provided. The Tli Cho have participated in an apprenticeship program, science camp, and summer student placement.

**Future Plans**

In 2009-2010, a Closeout Plan will be developed based on INAC guidelines and sign-off will be sought from the Tli Cho Government. Long-term monitoring will commence after project closure which is expected to occur in March 2011.

## Yukon

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

**FARO**

Faro mine is located in south-central Yukon, 22 km north of the Town of Faro and almost 200 km northeast of Whitehorse. 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 that could potentially impact aquatic and terrestrial ecosystems. Waste rock and tailings generate acid and release metals that could contaminate water supplies for human and aquatic populations. Creation and transportation of contaminated dust particles could also affect terrestrial species. Minimizing acid and metal generation, treating contaminated water, maintaining and upgrading infrastructure, and covering and moving dust sources will be key features of a closure and remediation plan at Faro.

**Remediation**

In 2001, funding was provided by DIAND to develop a Comprehensive Risk Assessment for the Faro mine that would guide prioritization and management of environmental issues at the site. The risk assessment process has helped identify priorities for both care and maintenance activities and investigations, and has acted as a useful tool for communicating priorities to mine site management and the government. The risk assessment process is dynamic and is re-evaluated and modified on an annual basis. INAC administers a detailed risk register for Faro that includes over 110 risk items.

All approved site remediation projects planned for 2007-2008 were completed, the largest of which was the continuation of the scrap steel recovery program and the removal of over 400,000 kg of scrap steel from the mine site.

**Social, Economic and Environmental Highlights**

In 2006-2007 an Independent Peer Review Panel (IPRP) was established to identify information gaps and assess the engineering adequacy of reclamation alternatives pertaining to the impending mine closure. The IPRP concluded that the technical studies and the range of alternatives provided enough information to move forward with the development of a closure and remediation plan. In 2007-2008 the IPRP completed a comprehensive technical review of closure alternatives. Outputs of the review were used to further refine the suite of closure approaches and informed the set of six closure options that were taken into formal government and community assessment processes. A final technical review of the recommended closure plan is expected to occur in the first quarter of the 2008-2009 fiscal year.

**Future Plans**

The development of the closure and remediation plan is on track and is expected to be completed and ready for regulatory approval in fiscal year 2008/09.

**CLINTON CREEK**

Clinton Creek mine is an abandoned asbestos mine, located approximately 100 km northwest of Dawson City. Clinton Creek operated from 1968 to 1978, and approximately 12 million tonnes of serpentine ore were extracted from three open pits.

**Health & Safety and Environmental Concerns**

When the mine was operating, over 60 million tonnes of waste rock were deposited over the south slope of the Clinton Creek valley, and approximately 10 million tonnes of tailings were deposited along the west side of Wolverine Creek. The Clinton Creek waste rock dump failed in 1974, and a slide blocked the valley and the creek, creating an impoundment referred to as Hudgeon Lake. Currently, the primary environmental concern is that Hudgeon Lake could breach the waste rock slide, resulting in sudden and significant downstream flooding, as well as the possible release of hydrogen sulphide created at the bottom of the lake.

**Remediation**

A detailed risk assessment of this site was initially conducted in March 2005, and has been updated every fall since. Updates reflect changes due largely to remedial or risk management activities. Since November 2006 several high risks were mitigated and moved to a lower category, and these changes were updated in the most recent risk assessment in November 2007. For example, the likelihood and severity of adverse impacts to the environment from contaminant release and waste rock erosion have been reduced through channel stabilization measures. Further, risk of uncertain tenure was alleviated in late 2006 when the Government of Yukon seized control of the site.

Re-vegetation of the waste rock pile was planned for 2007-2008; however, this task could not be completed because grasses were unable to grow on the waste rock piles. No other site remediation was planned for the 2007-2008 fiscal year.

**Social, Economic and Environmental Highlights**

In 2007-2008, 10 people were employed at the site, all of whom were Northerners, and four of whom were Aboriginal.

**Future Plans**

Remedial work has progressed as needed, but a final closure plan will depend on the extent of the remaining channel stabilization work, potential adverse impacts of moving tailings, and the need for restoring fisheries habitat. To develop options for addressing these issues, a final closures alternative document will be prepared in 2008. The document will serve as a discussion piece for all governments and stakeholders, and the preferred alternatives will be incorporated into a closure strategy that will be in place by the end of 2008.

**Nunavut**

<b>NUNAVUT KEY PERFORMANCE MEASURES</b>		<b>2005-2006</b>	<b>2006-2007</b>	<b>2007-2008</b>
<b>FINANCIAL</b>				
Total Liability	\$	\$148,876,718	\$139,314,007	\$163,866,827
Contingent Liability	\$		\$55,500	\$3,006,249
Expenditures	\$	\$19,613,301	\$21,703,310	\$18,175,977
<b>CLASSIFICATIONS</b>				
NCS 1	#	21	21	20
NCS 2	#	8	11	12
Risk Management/Monitoring	#	2	3	3
Contingent Liabilities	#		4	6
<b>ENVIRONMENT, HEALTH &amp; SAFETY</b>				
<b>Safety</b>				
Lost-time Accidents (LTAs)	<i>total</i>		6	4
LTA Time Lost (person-h)	<i>person-h</i>		86	72
<b>Incidents, Inspections and Audits</b>				
Inspections	<i># performed non-compliances</i>		10	3
Audits	<i># performed non-compliances</i>		1	2
				10
<b>EH&amp;S Training</b>				
Awareness Training (EH&S Policy & Procedures)	<i>person-h</i>	120	216	180
HAZWOPER	<i>person-h</i>	440	600	320
WHMIS	<i>person-h</i>	120	109	27
First Aid	<i>person-h</i>	120	326	233
Wildlife Safety	<i>person-h</i>	120	53	26
Water Safety	<i>person-h</i>		38	14
Fire Response	<i>person-h</i>	120	49	31
<b>SOCIO-ECONOMIC</b>				
<b>Employment</b>				
Total employment	#	104	229	215
	<i>person-d</i>	6,663	26,393	6,270
Northern employment (includes Aboriginal)	#	60	190	178
	<i>person-d</i>	4,020	24,856	4,676
Northern Aboriginal employment	#	90	188	176
	<i>person-d</i>	6,013	23,717	4,554
Southern Aboriginal employment	#		2	
	<i>person-d</i>		77	
<b>Workforce Training</b>				
Total training	# persons	62	234	132
	<i>Duration (h)</i>	935	2,431	1,078
Northern training	# persons	60	176	91
	<i>Duration (h)</i>	905	1,924	1,053
Northern Aboriginal training	# persons	59	175	88
	<i>Duration (h)</i>	890	1,920	1,061
<b>Purchase of Goods and Services</b>				
Northern suppliers (includes Aboriginal)	#	30	175	142
	\$	\$1,981,000	\$3,931,896	4,790,601
Northern Aboriginal suppliers	#		112	95
	\$		\$3,607,493	3,901,672
<b>CONSULTATION</b>				
Community tours and meeting	#	5	6	9
	<i>Audience (#)</i>	188	165	205
Workshops	#	1		
	<i>Audience (#)</i>	18		
Site tours	#	3	3	3
	<i>Audience (#)</i>	21	30	9

**SARCPA LAKE**

CAM-F Sarcpa Lake is located on the Melville Peninsula, approximately 85 km west of Hall Beach, and 100 km southwest of Igloolik. The CAM-F Intermediate Distant Early Warning (DEW) Line Site was constructed at this site in 1957 and subsequently abandoned in 1963, and the site was used as a seasonal scientific research station from 1977 until 1988.

**Health & Safety and Environmental Concerns**

Following the different uses of this site, both hazardous and non-hazardous wastes were left behind. Large structures left on the site include an airstrip, warehouse, Inuit house, a radar tower that had been knocked down, and oil and lubricants storage facilities. Further, the site contained approximately 10,000 mostly empty barrels, two former landfill areas, contaminated soil, and miscellaneous wastes and chemicals. One major concern included human exposure to physical and chemical hazards, since the site is located within a preferred hunting area for people from the communities of Hall Beach and Igloolik and the buildings on-site were often used as shelters. A further risk existed for terrestrial indigenous wildlife that might be exposed to hazardous materials.

**Remediation**

A site remediation plan was finalized in 2004 based on all data obtained in previous years and information obtained during community consultations. Both years of the planned two-year remediation phase of the CAM-F Sarcpa Lake Remediation Project have largely been completed. The final tasks to be completed in 2008-2009 include transporting hazardous wastes to Hall Beach so they can be shipped south for secure disposal, and removing the camp and other equipment from the site.

**Social, Economic and Environmental Highlights**

Final consultations for the remediation phase were completed in 2007, involving 85 people in a series of four events. The next round of consultations will be completed during the long-term monitoring phase, expected to begin in 2008. In 2007-2008, 128 people were employed at the site. Ninety-seven of these employees were Aboriginal peoples living in the North.

**Future Plans**

Following the final shipping and demobilization tasks, a 25-year long-term monitoring program is scheduled to begin in the fall of 2008.



**RADIO ISLAND**

Radio Island is located on the southern tip of Resolution Island, at the southeast end of Baffin Island. The Canadian Department of Transport operated a navigational aid and weather station at this site from 1929 to 1961.

**Health & Safety and Environmental Concerns**

Environmental site assessments completed in 1996 and 2001 revealed that hazardous and non-hazardous debris were scattered throughout this site. Non-hazardous debris consisted of cables, scrap metal, barrels, wood and building demolition material. Hazardous materials consisted of lead acid batteries, lead paint, asbestos, and soils containing arsenic, barium, cobalt, cadmium, copper, lead, mercury, molybdenum, nickel, selenium, tin, antimony and zinc.

**Remediation**

Findings from the environmental site assessments were used to develop a draft Remedial Action Plan, which consisted of the removal and disposal of wastes. Initially, completion of the remediation was planned for the end of 2006-2007, but challenges, such as weather conditions, difficult site conditions, and revised sealift schedule prevented the project from being completed. In 2007-2008, weather and sealift schedules delayed the field season, but the project was successfully completed with all waste disposed of at southern locations.

**Social, Economic and Environmental Highlights**

Training was provided to employees in a number of areas including: environmental health and safety policy and procedures, workplace hazardous materials information system, wildlife safety, water safety, fire response, helicopter safety, and spills response. Final remediation work was completed without any major incidents.

**Future Plans**

Due to the fact that all the contamination was removed from the site, no long-term monitoring will be required.

## PROGRAM MANAGEMENT

NAO's Northern Contaminated Sites Program Management Framework has been in place since 2002 and guides the effective and efficient management of the NCSP. The Framework includes:

- A Contaminated Sites Management Policy and Plan;
- A Results-Based Management and Accountability Framework (RMAF) that outlines the NCSP's relationship to departmental and Government of Canada objectives, and presents a program profile, logic model, performance measurement and reporting strategy, evaluation strategy, and audit strategy; and
- Corporate Procedures that document processes and procedures to promote the consistent application of the program across all regions.

The NCSP also produces annual work plans to further guide its program management activities. This section of the report outlines the NCSP's performance on five key program management activities that were undertaken during 2007-2008:

1. Integrated Risk Management;
2. Office of the Auditor General (OAG) Audit and Results;
3. Service Level Agreement (SLA) with Public Works and Government Services Canada (PWGSC);
4. Environment, Health and Safety Audits and Training; and
5. Integrated Environmental Management Systems (IEMS).

### Integrated Risk Management

In 2007, the NCSP began the process of building on the use of risk to assist site level planning by incorporating strategic level risk profiling and risk assessment to decision making. This work commenced in the summer of 2007 with a series of interviews of senior staff to identify key risks. In September a workshop was held with the four Directors to validate the risk list developed from interviews and to assess the risk levels at a program level.

In the fall of 2007, workshops were held in Iqaluit, Yellowknife and Whitehorse to assess the risk levels in each of the three northern regions. These workshops included the Directors, program staff and a representative from PWGSC. In December, a Corporate Risk Profile was completed which identified the top three risks in the Northern Contaminated Sites Program and as well identified the program outcomes that are most at risk.

**Integrated Risk Management:** the consideration of risk information in planning, priority setting, and decision-making, through the use of enterprise wide criteria approved for that program, and applied through a process that ensures consistency across program elements and over time.

Integrated Risk Management is the *integration* of risk considerations by managers into their decision-making in a consistent, thorough, and balanced manner.

The NCSP also commissioned and received specific guidelines on the implementation of Integrated Risk Management as well as tools to support the risk workshops and mitigation planning. The Directors have committed to imbedding Integrated Risk Management information as an integral part of the planning cycle and committed to developing specific mitigation plans. Plans are in place for 2008-2009 to track the effectiveness of the mitigation and as well to reassess the risk levels and their impact on the achievement of program objectives. The INAC NCSP is a leader at the federal level in

responding to the risk management requirements set down in the Treasury Board Management Accountability Framework.

### **OAG Audit and Results**

In 2002, 11 years after the federal government began to tackle contaminated sites; the Office of the Auditor General reported that little progress had been made on managing contaminated sites. The federal government was not providing central leadership to deal with the sites, nor had it established how many contaminated sites existed, what environmental or health risks they posed, or what it would cost to remediate them. A subsequent audit by the OAG, completed in March 2008, set out to determine to what extent four government departments - Fisheries and Oceans Canada, Indian and Northern Affairs Canada, National Defence, and Transport Canada - who account for approximately 89% of the federal government's known and suspected contaminated sites, had addressed select recommendations outlined in the 2002 audit. Environment Canada and Treasury Board were included in the audit as well as the FCSAP Secretariat.

Overall, the OAG concluded that these four government departments have made satisfactory progress in managing contaminated sites. More specifically, they have made progress in providing a central leadership role; identifying and assessing contaminated sites, and determining the costs of dealing with contaminated sites. By October 2007, the federal government had identified roughly 17,800 known and suspected contaminated sites. Clear objectives were identified in a Federal Contaminated Sites Action Plan (FCSAP) that was developed to allocate funding to specific sites based on their level of risk. Funding - \$1.5 billion over five years - has been initially allocated to manage priority sites. Roughly 340 sites have been remediated, and another 480 are undergoing remediation. All four departments have developed management plans that contain some time-bound commitments aimed at reducing risks posed to human health and the environment. Specifically, INAC invested a significant effort in dealing with four contaminated sites identified as having serious issues in the 2002 audit: Colomac, Faro, Giant, and Mount Nansen. Federal government contaminated sites are estimated to represent a liability of about \$3.1 billion (excluding costs for decommissioning nuclear facilities).

### **Service Level Agreement with PWGSC**

In October 2007, a Service Level Agreement (SLA) was approved by both INAC and PWGSC, outlining an updated terms of reference for their combined efforts in contributing to the NCSP. The NCSP Directors reviewed drafts of the SLA and their comments were considered in preparing the final version which they endorsed for approval.

Prior to the SLA, INAC and PWGSC entered into a Memorandum of Understanding (MOU) in February, 2005 whereby PWGSC committed to provide project management and procurement services in support of the NCSP. This MOU provided general direction for the agreement and was to be supplemented by more detailed regional and project charters. In 2007-2008, both departments agreed that the MOU should be reviewed and updated to clarify: i) roles and responsibilities for project and contract management; ii) project lifecycle and handoffs between the two departments; and iii) conditions of service (e.g. fees, reporting). The MOU review began in April 2007, and the outcome was a recommendation that the MOU be replaced with a more precise SLA that would be endorsed by the NCSP Directors and regional Directors and approved by the Director General, Natural Resources and Environment Branch, on behalf of INAC, and by the PWGSC Regional Director General for Western Region. The SLA would be supplemented by Specific Services Agreements (SSAs) at the project level.

The SLA acknowledges that both departments have legitimate authority for the NCSP and clarifies responsibilities and roles for each authority. INAC is the program owner and is accountable for results and budget and PWGSC has contracting authority for construction services. In addition, INAC delegates authority to PWGSC for project management during certain phases of the projects. The party with the designated authority is accountable for ensuring the defined activities are accomplished. The SSAs enable INAC to transfer funds to PWGSC for specific projects or packages of work and for establishing additional conditions of service for each project. To date, two model SSAs have been developed, one for a large project (Giant Mine) and another for a smaller site (Tundra Mine).

## Environment, Health and Safety Audits and Training

### Audits

NCSP's Environment, Health and Safety (EH&S) Management System and the EH&S Standard Operating Procedures (SOPs) were introduced 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 environmental aspects 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 EH&S 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 and the Northwest Territories in July 2007. However, an audit was not completed for the Yukon due to administrative challenges. These audits were the first EH&S management system and compliance audits of the NCSP operations. **Table 15** summarizes findings of non-conformance and areas of improvement reported in the audits, for which priority rankings were assigned. Priority rankings are defined as follows:

- 1 Major regulatory violation; could result in legal action; immediate remedy required
- 2 Regulatory violation; could result in legal action; remedy required as soon as possible
- 3 Minor regulatory or policy breach; could result in breach of commitment; remedy required when funding and time permits
- 4 No regulatory breach; could result in cost savings; would demonstrate a proactive EH&S management approach
- 5 Would maintain EH&S compliance; would demonstrate proactive EH&S management, pollution prevention, and process simplification and improvement

**Table 15: 2007 Audit Non-Conformance and Areas of Improvement Issues Receiving Priority Rankings**

REGION	NUMBER OF NON-CONFORMANCE AND AREAS OF IMPROVEMENT ISSUES				
	PRIORITY RANKING				
	1	2	3	4	5
NWT	0	6	6	0	0
Nunavut	0	2	14	2	1
<b>TOTAL</b>	<b>0</b>	<b>8</b>	<b>20</b>	<b>2</b>	<b>1</b>

*Note: Priority rankings assigned based on INAC NCSP Audit Finding Priority Ranking system.*

INAC NCSP developed a Corrective and Preventative Action Plan (CPAP) system to address audit findings. For each finding, NCSP identified corrective and/or preventive actions, assigned responsibility, and established a completion date. CPAPs were developed for both regions, and included actions for HQ, regional staff, and project managers. Progress on addressing CPAP items are not discussed in this report, given that 2007-2008 was the first year of audits and corrective planning for the NCSP. This year will be used to develop a baseline, and results on CPAPs will likely be reported in 2008-2009.

### Training

During 2007-2008, NCSP undertook a number of training initiatives to help build the capacities of NCSP Project Managers to understand Program requirements and the NCSP EH&S Management System. The initial step in this process included conducting a training needs analysis in order to identify the specific learning needs of NCSP staff. Personnel at headquarters and 16 members of the potential training audience from the three regions where the Program operates - NWT, Nunavut and the Yukon - were interviewed as part of this process. The needs analysis identified specific learning

objectives and provided recommendations on potential training session themes. Two training sessions were targeted for delivery to the regions during the fiscal year including:

- EH&S Management System and compliance training delivered in NWT and Nunavut focused on helping Project Managers understand the need for, benefits of, and their responsibilities related to EH&S Management System compliance audits; as well as a broader understanding and deeper capability related to EH&S regulatory requirements in support of effective site management and due diligence; and
- Detailed work planning and risk management training delivered to all regions focused on describing the Project Manager's roles, responsibilities and accountabilities related to the planning process and providing guidance on writing a high quality project scope and plan; as well as developing skills in order to correctly assess risks and identify high risks at a project site, and to write a detailed work plan that addresses these high risks.

Training was delivered to 37 NCSP and PWGSC staff.<sup>3</sup> A variety of factors and issues affected the success of these training sessions and a number of lessons learned from the experience have been identified to improve future training initiatives.

#### **Training Evaluation Results**

Based on feedback compiled from evaluation forms submitted by training session participants, overall satisfaction with the training sessions was varied:

#### **EH&S MS and compliance training**

- 30% very satisfied
- 70% satisfied

#### **Detailed work planning and risk management training**

- 15% very satisfied
- 59% satisfied
- 19% take it or leave it
- 7% dissatisfied

## **Integrated Environmental Management Systems (IEMS)**

Treasury Board has mandated that there must be an inventory of contaminated sites, and NAO has been using its own database to manage both financial and non-financial elements of individual NCSP projects and the NCSP as a whole. The database was initially designed to manage the Program's inventory, but it is now also used to satisfy the Treasury Board's reporting requirements. New functionality was added to the database over time, and the database currently acts as the platform for NCSP's corporate procedures and risk management tool. In 2006-2007, a user needs analysis was conducted with regional offices to identify limitations of the existing inventory, and to determine what additional functionality that users deemed relevant. Using the results of this exercise, a functional specifications document was written to revamp NCSP's database in 2007-2008.

In August 2007, the Chief Financial Officer (CFO) of INAC decided to merge Land Trust Services (LTS) and NAOs database systems to develop a broader integrated environmental management system. One of the goals of this initiative was to bring about cost savings to both organizations. Since that decision, LTS and NAO have met several times to discuss merging their applications into a single corporate environmental system. LTS, NAO, and Information Management Branch (IMB) working groups have met to determine the feasibility of a single system, including the next steps of the process. Release of the new database was delayed from March 2008, but is expected to occur in December 2008, at which point it will contain the following features:

- Provide reporting functionalities;
- Collect, track, and monitor information specific to contaminated sites;
- Migrate existing applicable historical data from applications;
- Facilitate the reporting of contaminated sites to Treasury Board; and
- Capture, store, and manage financial activities with respect to contaminated sites.

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<sup>3</sup> PWGSC staff assist in the delivery of NCSP projects the departments work together to achieve the Program's objectives.

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## **FUTURE DIRECTIONS**

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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 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:

- Further development of an integrated risk management (IRM) program for the entire NCSP;
- Conducting a financial process review to ensure the movement of money is optimized;
- Working closely with our partners to ensure the renewal of the Federal Contaminated Sites Action Plan;
- Increasing the availability of training across the program; and
- Continued management system implementation.

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 Renee Latulippe, acting Director of the Contaminated Sites Program, at (819) 997-7247 or [latulippe@ainc-inac.gc.ca](mailto:latulippe@ainc-inac.gc.ca) (no longer current).

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## Appendix 1: Acronyms

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ADM – Assistant Deputy Minister  
CCME – Canadian Council of Ministers of the Environment  
CFO – Chief Financial Officer  
CPAP – Corrective and Preventative Action Plan  
DEW – Distant Early Warning  
DIAND – Department of Indian Affairs and Northern Development  
DPR – Departmental Performance Report  
EH&S – Environment, Health and Safety  
EH&S MS – Environment, Health and Safety Management System  
FCSAI – Federal Contaminated Sites Assessment Initiative  
FCSAP – Federal Contaminated Sites Action Plan  
HAZWOPER – Hazardous Waste Operations and Emergency Response  
HQ – Headquarters  
HRSDC – Human Resources and Skills Development Canada  
IEMS – Integrated Environmental Management Systems  
IMB – Information Management Branch  
INAC – Indian and Northern Affairs Canada  
IPRP – Independent Peer Review Panel  
IRM – Integrated Risk Management  
LTA – Lost-Time Accident  
LTS – Land Trust Services  
MOU – Memorandum of Understanding  
MSDS – Material Safety Data Sheets  
NAO – Northern Affairs Organization  
NCS – National Classification System  
NCSP – Northern Contaminated Sites Program  
NWT – Northwest Territories  
OAG – Office of the Auditor General  
PCB – Polychlorinated Biphenyl  
PMTAC – Project Management Technical Advisory Committee  
PWGSC – Public Works and Government Services Canada  
RMAF – Result-based Management and Accountability Framework  
RPP – Report of Plans and Priorities  
SLA – Service Level Agreement  
SOP – Standard Operating Procedure  
SSA – Specific Services Agreement  
UKHM – United Keno Hill Mine  
WCB – Workers' Compensation Board  
WHMIS – Workplace Hazardous Materials Information System

## Appendix 2: Expenditures by Site

Site Name	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008
<b>NORTHWEST TERRITORIES</b>					
American Yellowknife				\$27,505	
Atkinson Point			\$306,821	\$1,942,120	\$4,804,724
Axe Point	\$32,500	\$3,056	\$396,477	\$510,991	\$1,851,641
Beaverlodge Lake	\$8,142				
Bullmoose			\$38,691	\$13,065	\$196,771
Canol Trail					\$107,869
Cat and Grainger				\$87,485	
Colomac	\$16,534,508	\$10,846,117	\$11,561,704	\$24,953,965	\$11,691,005
Consolidated Beta Gama		\$30,814			
Contact Lake	\$7,200			\$657,671	\$752,199
Crestaurem				\$23,629	
Discovery	\$405,922	\$3,647,465	\$4,883,733	\$899,663	\$1,124,725
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
Hidden Lake Mine			\$35,446	\$146,051	\$162,538
Horton River	\$41,000	\$22,528			
Indore Gold Mine				\$415,422	\$312,706
Jackson Islands			\$28,492		
Jean Marie River	\$14,000			\$17,693	\$73,489
Johnson Point			\$258,064	\$1,962,397	\$478,621
Kittigazuit Bay	\$836,000	\$763,563	\$46,870		
Liten				\$35,041	
North Inca Mine			\$48,324	\$158,395	\$352,507
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
Rayrock	\$105,000	\$111,362	\$63,291		
Ruth Gold Mine			\$39,819	\$13,759	\$121,508
Sawmill Bay					\$302,151
Silver Bear	\$38,800	\$1,130,342	\$1,448,979	\$1,375,966	\$1,340,720
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
Victoria Island Assessments				\$78,954	
West Bay				\$33,451	
Water Monitoring				\$25,153	
Monitoring			\$125,876	\$253,469	\$154,278
NWT Admin		\$6,617	\$0	\$119,909	\$10,122
<b>Sub-Total</b>	<b>\$28,583,872</b>	<b>\$29,927,009</b>	<b>\$33,911,206</b>	<b>\$54,601,926</b>	<b>\$44,676,156</b>



Site Name	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008
<b>YUKON</b>					
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
Faro	\$14,068,369	\$14,244,758	\$15,644,007	\$14,008,526	\$15,701,276
Hydrometric Stations	\$113,000	\$6,172			
Ketza River Mine		\$8,415			
Mount Hansen	\$953,088	\$1,331,686	\$1,319,400	\$1,565,288	\$1,327,506
Peel River	\$14,000				
Snag	\$8,000	\$2,615			
UKHM		\$3,766,471	\$4,281,261	\$2,844,694	\$3,382,054
Venus Tailings	\$6,000	\$551			
Yukon Devolution*	\$982,000	\$536,367	\$1,005,120	\$725,581	\$930,864
Water Monitoring					\$2,053
Monitoring				\$11,724	\$24,207
Yukon Admin		\$1,059	\$2,855	\$1,232	\$100,227
<b>Sub-Total</b>	<b>\$17,022,692</b>	<b>\$21,045,133</b>	<b>\$22,680,643</b>	<b>\$19,658,841</b>	<b>\$21,652,794</b>

\* Expenditures under Yukon Devolution relate to hundreds of small waste sites in the Yukon that have been grouped under one name. As part of the devolution transfer agreement, \$2 million/year has been earmarked for the next seven years to cleanup these sites.

Site Name	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008
<b>NUNAVUT</b>					
Akpatok Island	\$2,500				
BAF 3 - Beevort					
Bear Island					\$569,695
Bernard Harbour					
Borup Fiord				\$48,483	
Bray Island			\$11,500	\$573,519	\$12,449
Cape Christian	\$29,760			\$336,853	\$556,197
Cape Peel					
Clifton Point					\$634,132
Cullaton Lake			\$84,512		
Durban Island	\$29,400				
Ekalugad Fiord	\$29,610	\$1,502,659	\$3,365,680	\$6,686,801	\$5,566,612
Eureka Sound North #2				\$48,483	
Fat Lake			\$71,410		
Flagler				\$48,483	
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
Ross Point					
Sarcpa Lake	\$104,247	\$1,303,185	\$3,611,508	\$5,242,630	\$5,699,280
Simpson Lake			\$396,717	\$104,266	\$299,926
Strathcona Fiord				\$48,483	
Site Assessment**		\$225,000			\$265,614
Water Monitoring				\$42,061	
Monitoring			\$30,268		\$278,189
Nunavut Program Development	\$32,566				
Nunavut Admin					\$29,532
<b>Sub-Total</b>	<b>\$13,065,781</b>	<b>\$13,251,407</b>	<b>\$19,150,366</b>	<b>\$21,086,310</b>	<b>\$18,126,435</b>
HQ Admin			\$27,726		\$1,317
Program Admin (HQ & Regional)	\$885,843	\$2,203,184	\$4,594,167	\$4,023,195	\$4,672,243
<b>Total</b>	<b>\$59,558,188</b>	<b>\$66,426,733</b>	<b>\$80,364,108</b>	<b>\$99,370,271</b>	<b>\$89,128,945</b>

\*\* Site Assessment: In 2004-2005 and 2007-2008 expenditures for assessments at new sites are lumped together due to the large number of new sites that were assessed – 97 new sites were assessed in 2007-2008. In 2005-2006 and 2006-2007 new site assessment expenditures are allocated to specific sites rather than grouped together.

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## **Appendix 3: Project Management Component Definitions**

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### **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 maintain 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, electrical systems, etc.).

### **Monitoring**

Conditions of 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 absolutely continue to maintain legal compliance.

### **Regulatory Approvals**

Regulatory approvals are essential to carrying out care and maintenance. 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.