

NORTHERN AFFAIRS PROGRAM
CONTAMINATED SITES PROGRAM
PERFORMANCE REPORT

2003 – 2004

April 2005

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Management Statement

In an ongoing effort to be transparent and report on our results, I am pleased to present our third Performance Report. The Northern Affairs Program (NAP), Contaminated Sites Program (CSP) continues to make significant progress in its overall goal of reducing the risk to human and environmental health associated with the contaminated sites we manage in the North. We also continue to strive to make positive economic and social contributions to the communities in the North where our sites are located. The CSP focuses on 66 of the highest priority sites. In 2003-2004, our program spent approximately \$61.5 million achieving a number of key results shown in the table below.

Type of Activity	Number of Sites
2003-2004	
Ongoing care and maintenance	6
Site assessment work	13
Consultations	14
Remediation work	9
Site monitoring	22

We continue to work toward further site remediation and liability reduction. With the injection of funds from the Federal Contaminated Sites Accelerated Action Plan (FCSAAP) program, we are optimistic about our ability to accelerate the remediation of our high-risk sites.

Securing stable funding to support the CSP was one of our key challenges in the past. With the establishment of the FCSAAP program in June 2003, this risk has been reduced. In 2003-2004, the CSP received just over \$39 million from FCSAAP. Approved funding for FCSAAP has been earmarked in the fiscal framework to 2008, ensuring some much needed long-term funding.

We accomplished many of the program management goals we set out to achieve last year, such as:

- conducting a functional review of the program;
- preparing submissions for long-term funding through FCSAAP; and
- submitting the Contaminated Sites Management Plan to the Treasury Board Secretariat.

While we are proud of what we have achieved, we also recognize that there are areas where more must be accomplished, such as:

- assessing additional sites where contamination and liability are unknown;
- completing remediation at sites that pose human and environmental risks; and
- more fully integrating the Contaminated Sites Management Framework into operations.

None of our accomplishments would have been possible without the hard work and dedication of the CSP staff and our partners. They continue to demonstrate a strong work ethic and commitment to accomplishing the program's objectives.

I invite you to read this year's Performance Report for an in-depth perspective on the CSP's progress. A list of acronyms can be found at the end of the report.

To ensure we continue to meet the needs of our stakeholders, I also invite you to provide comments and feedback on this report.¹ Thank you for your interest in our Contaminated Sites Program.

Liseanne Forand
 Assistant Deputy Minister
 Northern Affairs Program
 Indian and Northern Affairs Canada

April 21, 2005

¹ Please see the end of the report for contact information.



This Performance Report presents the results of Indian and Northern Affairs Canada's Northern Contaminated Sites Program (CSP) in Canada's three territories from April 1, 2003 to March 31, 2004. Additional information on CSP activities can be found on our Web site and in previous annual performance reports (see http://www.ainc-inac.gc.ca/ps/nap/consit/index_e.html/).

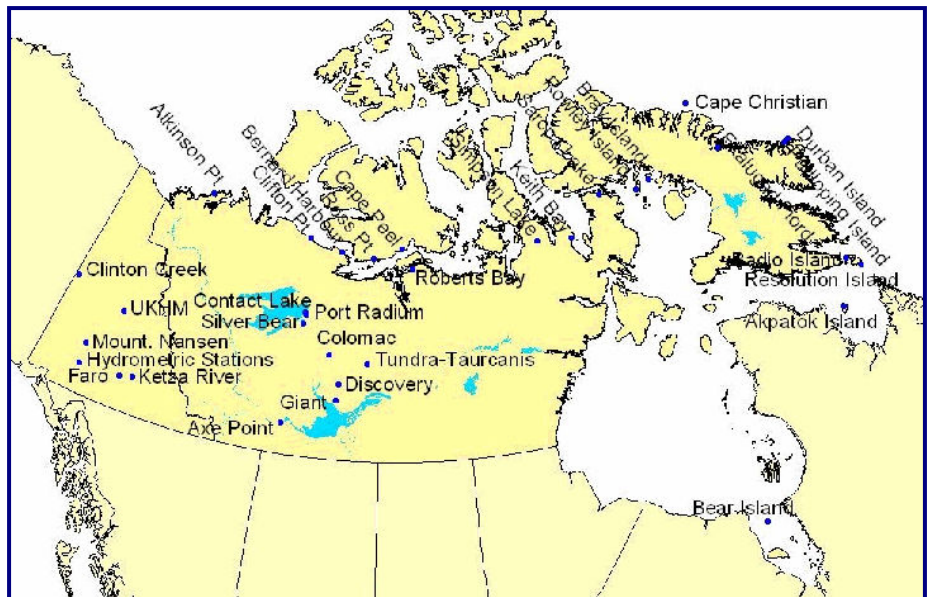
To ensure the effective management of these unique sites, the dedicated team of CSP staff increased by four members over the fiscal year to 23. Staff members are located at INAC headquarters in Gatineau, Quebec (2), and in three regional offices including NWT (12.5), Yukon (5) and Nunavut (3.5). The INAC CSP staff is supported by technical expertise from Public Works and Government Services Canada (PWGSC) and ongoing support from experts in various other government departments. **Table 1** on the following page summarizes CSP staff activities.

Profile of NAP Contaminated Sites Program

Indian and Northern Affairs Canada (INAC) is the custodian of most federal lands in the North. It manages abandoned, contaminated properties in the three territories. As of March 31, 2004, 378 contaminated sites (assessed and suspected) in the North require action including assessment, remediation or risk management.

CSP is responsible for managing these contaminated sites to ensure that human and environmental health is protected. With devolution of land and resource management responsibilities in the Yukon now in effect, and with devolution being planned in the Northwest Territories (NWT), INAC also works with the territorial governments and First Nations and Inuit partners to manage these contaminated sites. **Figure 1** illustrates the locations of priority sites in Canada's North.

Figure 1: Map of Priority Sites²



² For a discussion about priority sites, please see the Performance Section. Please also note that the Silver Bear Mine consists of four sites, bringing the total number of priority sites to 36.

Table 1: Summary of CSP Staff Activities

Program / Project Planning & Management	Program / Project Implementation (Site Operations)	Program / Project Administration & Support
<ul style="list-style-type: none"> • Policy Development • Annual Planning • Long-term Planning • Procedure Development • Review, Evaluation & Audit • Reporting 	<ul style="list-style-type: none"> • Site Investigation & Assessment • Care & Maintenance • Site Remediation • Site Monitoring • Regulatory Approvals • Consultations 	<ul style="list-style-type: none"> • Liaise with Federal Departments & Agencies • Functional Support to Other INAC Sectors • Communications • Coordination with Territorial Governments • Human Resources • Procurement of Goods & Services • Financial Management & Reporting • Information Management • Training • Legal Support • Technical Support (Science & Analysis) • Administrative Support

Vision

The CSP's vision is to:

Manage contaminated sites in a cost-effective and consistent manner and to reduce and eliminate, where possible, risk to human and environmental health and liability associated with contaminated sites.
















How CSP achieves this vision and its strategic commitments are reported in the following pages of this Performance Report. **Figure 2** summarizes the overall performance against program objective.

DEVOLUTION

Devolution of responsibilities to the Yukon territorial government (YTG) came into effect on April 1, 2003. The Yukon Devolution Transfer Agreement (DTA) not only specifies that the YTG has a significant role in managing the large, abandoned mines in Yukon, but also stipulates federal funding commitments to address these territorial contaminated sites. Similar negotiations are currently taking place with the NWT government. For further information, see: http://www.ainc-inac.gc.ca/ps/nap/yna_e.html.

Figure 2: CSP Performance Highlights

LEGEND	
	Improved performance
	No change in performance
	Performance declining, requires action

PROGRAM MANAGEMENT	FINANCIALS
<ul style="list-style-type: none">  No outstanding compliance issues  No compliance audits conducted at major sites  Training provided to program staff  Approved long-term plan  13 site assessments completed in 2003-2004, up from 9  495 sites require assessment, down from 497 	<p>Expenditures</p> <ul style="list-style-type: none">  Long-term funding <p>Liabilities</p> <ul style="list-style-type: none">  Quality of liability estimates improved by 12.3%  Total liability estimates increased by 7%
PRIORITY SITES	POLLUTER PAYS
<ul style="list-style-type: none">  43 National Classification System (NCS) Class 1 sites require remediation, up from 42 sites  9 sites underwent remediation, up from 6; no sites completely remediated  6 sites in Contaminated Sites Management Working Group (CSMWG) steps 8-10 (see p. 11), up from 2 sites 	<ul style="list-style-type: none">  Number of contaminated sites with third-party liability  Number of sites where third-party contributing to funding  Amount of contribution by third-parties

NAP Contaminated Sites Management and Governance

Overall responsibility for the CSP rests with the Deputy Minister, INAC, and the Assistant Deputy Minister, NAP. Key aspects of the CSP management and governance structure can be found at: www.ainc-inac.gc.ca/ps/nap/consit/8csrep0102_e.html.

A change to the program's management and governance as a result of Yukon devolution includes the establishment of a Senior Management Steering Committee in the Yukon. This committee was established to facilitate joint decision making regarding the management of all aspects of the Faro project, and other sites where cooperative management between INAC and the YTG are required under the transfer agreement.

Performance Measurement

Objectives

The CSP has established the following strategic objectives to guide its activities. These strategic objectives can be found at: www.ainc-inac.gc.ca/ps/nap/consit/manpol_e.html.

Progress Achieved

Over the past three years, CSP has developed and implemented a comprehensive program management framework that includes a policy, strategy, governance framework, results-based management and accountability framework, and a set of corporate procedures that document all program processes and procedures to promote the consistent application of the management framework across regions. During the fiscal year, CSP

also developed a Contaminated Sites Management Plan that was submitted to the Treasury Board Secretariat (TBS) in July 2003. This plan is integral to, and an output of, the NAP Contaminated Sites Management Framework. It outlines our approach for achieving program objectives over the next five years. It also outlines plans for a \$400 million investment to address 30 sites (representing the Department's most significant liabilities). Of these sites, 21 will be remediated and nine will be advanced to a stage of active remediation in the next five years.

The program's progress in meeting its strategic objectives can be found in the subsections that follow.

Management

The CSP's process for project planning and approval has been evolving over the past few years, given the increase in project complexity and costs. The CSP has developed a Project Planning and Approval (PP&A) template that is used to develop annual funding requests. In addition, PP&As are the primary decision-support document to develop and maintain the program's multi-year funding requirements to access FCSAAP funds. PP&As provide sufficient detail on individual projects to enable Program Managers to establish program-level performance objectives and targets, schedule future workplans for a five-year period, and plan the annual allocation of resources to meet program requirements and manage risk.

In 2003, the CSP's Management Framework two-tier approach to setting priorities was modified to align it with the FCSAAP two-tier system. Priority assessments are carried out based on information contained in project planning and approval documents that are developed and updated annually.

Given the increase in the scale and scope to the contaminated sites challenge in the North, program management resources, nationally and regionally, both in terms of expertise and capacity have not kept pace. During the reporting period CSP undertook a functional review to assess the adequacy of current staff resources and competencies and to make

recommendations for staffing and organizational changes to ensure that the program is run effectively and achieves its goals. Recommendations from this review will be considered and implemented, if warranted, in the upcoming fiscal year and beyond.

In order to track the progress made by the program at its contaminated sites, NAP maintains a contaminated/waste site database. In April 2003, the stand-alone database was converted to a Web-based Oracle system to facilitate easier access and functionality. The database was used to successfully download NAP CSP contaminated sites information to the TBS on November 21, 2003, for the Federal Contaminated Sites Inventory (<http://publiservice.tbs-sct.gc.ca/dfrp-rbif/cs-sc/home-accueil.asp>). The program faces some challenges in ensuring consistent use of the database across all regions. Further training on the database will take place in the 2004-2005 fiscal year to address this challenge. Adding a GIS component to the database is also scheduled to take place in 2004-2005.

In addition to contaminated sites, NAP's contaminated/waste site database also includes information on waste sites and other physical hazards that represent a potential human health and safety risk and a liability for the Department. While not considered in the TBS Contaminated Sites Management Policy, physical hazards (e.g., abandoned mines with open entrances, dams and other structures with geotechnical stability issues) must be managed by NAP.

As of March 31, 2004, there were 1,826 sites (contaminated and physical hazards) in the NAP Contaminated/Waste Sites Inventory, three more than identified in 2002-2003.

Of these 1,826 sites:

- 977 have been assessed and require no further action or have been remediated;
- 838 still require action including assessment, remediation or risk management; and
- 11 are contingent liabilities.³

Of the 838 sites that still require action, 343 (up 15 from last year) have been assessed and 495 still need assessment or site inspections to determine the level of contamination, should it be present. **Table 2** identifies the number of assessed and suspected contaminated sites and physical hazards by region.

Of CSP's 1,826 contaminated sites, 53.5% have been assessed and require no further action or have been remediated - reducing the risk to human and environmental health and the associated site liability.

³ A contingent liability is an existing condition or situation involving uncertainty concerning 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 liability or the loss or impairment of an asset or the incurrence of a liability, or the party responsible for clean-up has not been determined.

The number of contingent liabilities has decreased by half compared to last year because of a double-counting error, as well as the transfer of some contingent liability sites to YTG based on Yukon devolution.

Table 2: Number of Contaminated (C.S.) and Physical Hazard (P.H.) Sites, 2004

Region	C.S.	P.H.		C.S.	P.H.		
	Assessed		Sub-Total	Suspected		Sub-Total	Total
Yukon	11	43	54	14	61	75	129
NWT	29	127	156	181	77	258	414
Nunavut	26	107	133	117	45	162	295
Total	66	277	343	312	183	495	838

Compared to the previous year, the number of assessed contaminated sites has increased by three (one in the Yukon and two in Nunavut). The number of assessed physical hazards has increased by 12 (all in the Yukon). The number of suspected contaminated sites has decreased by two in NWT.

When identifying and classifying the level of contamination at a particular site, the program uses the Canadian Council of Ministers of the Environment (CCME) National Classification System (NCS). Sites are classified according to the following classes:

- Class 1:** Action Required
- Class 2:** Action Likely Required
- Class 3:** Action May be Required
- Class N:** Action Not Likely Required
- Class I:** Insufficient Information

Table 3 identifies the total classification of sites compared to the previous year. The largest difference occurred in the increased number of Class 3 sites.⁴

Table 3: CCME Classification of Sites, 2002-2004⁵

Class	2002-03	2003-04
1	42	43
2	15	14
3	5	9
N	1	0
I	0	0
TOTAL	63	66

⁴ As a requirement of the FCSAAP program, CSP needed to ensure that all site NCS scores were reliable. CSP hired PWGSC to review assessment reports and consistently reassess all site NCS scores. This process has improved the reliability of our NCS Class scores.

⁵ Note: 7 of these NCS Class 1 sites are under risk management/monitoring and, therefore, do not require large resources.

UNITED KENO HILL MINE

The UKHM site has an eventful past. There were operators in the past who failed to meet the terms of their water license, the property changed ownership many times, and the owners failed to meet the obligations and timelines of their agreements. The site is currently managed by the Government of Yukon with funding from INAC. As a condition of the Yukon Devolution Transfer Agreement, INAC is obligated to fund clean-up. Positive developments are now underway at UKHM:

- care and maintenance work was completed in 2003-2004;
- hazardous chemical wastes were removed from the site; and
- site investigation and assessments were also completed:
 - PCB inventory and assessment;
 - safety and environmental issue prioritization;
 - hazardous chemical assessment; and
 - water treatment optimization.

Ongoing water sampling is also taking place at UKHM and future remediation work is planned for 2004-2005.



Tailings pond at UKHM

GIANT

The majority of work and costs at the Giant Mine Site are associated with maintaining the mine's water pumping and water distribution system to ensure the mine does not flood. The Giant Mine Remediation Project Team is actively working on the Arsenic Trioxide Management Project Description that is scheduled to be completed in fall 2004. This description will be incorporated in the overall Giant Mine Remediation Plan. During the reporting period, INAC staff also completed an intense series of 20 public information meetings to discuss arsenic trioxide management alternatives at the Giant Mine, as well as convening a two-day workshop in May 2003 focussed on selecting a management alternative. The workshop marked a significant milestone in gaining public support to advance the project to the next level.

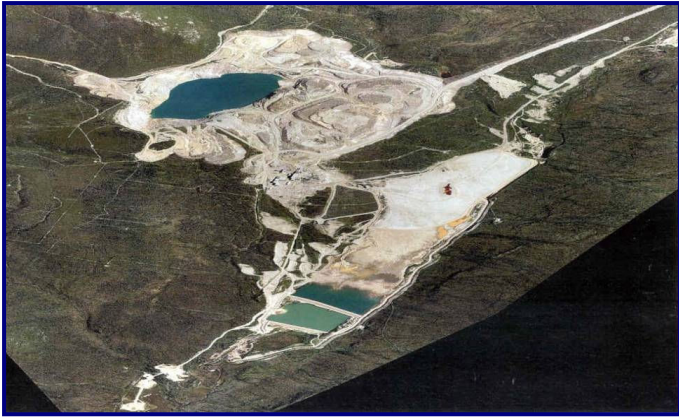
A new comprehensive risk management approach modelled on best practice in the private sector was pilot tested at Giant Mine. This process drove implementation of risk mitigating actions as part of the ongoing care and maintenance of the mine and helped inform the decision to go ahead with in-situ freezing at the site. It will help shape changes in CSP's approach to risk management (see Future Directions).

For background information on the Giant Mine Site, visit:

<http://nwt-tno.inac-ainc.gc.ca/giant/>



Tailings reprocessing plant at Giant Mine



Overview of Faro Mine site



Soil excavation at Faro Mine

FARO

The Faro Mine complex is located in the central Yukon approximately 200 km north-northeast of Whitehorse. Access is from the town of Faro, located approximately 25 km by road to the south. Currently a court appointed Interim Receiver (appointed April 1998) with funding provided by INAC is overseeing the ongoing care and maintenance programs at the mine site. The mine has not operated since the company ceased operations in late 1997. Environmental care and maintenance activities, primarily effluent water treatment and infrastructure maintenance and repair, have been carried out throughout the reporting period. The federal and territorial governments have attempted, without success, to sell the property or find a private industry operator. In 2003, it was determined that the property is not economically viable. This allowed closure planning to proceed for final, permanent closure of the site. Health and safety hazards are being managed at the mine site, including depleted buildings, open excavations and potential lead exposure. The mine has also influenced the traditional use of the Faro area by the Ross River Dena who have raised concerns over the impact the mine operations and tailings have had on wildlife. Work completed at the mine site throughout the reporting period included:

- preventing the discharge of contaminated water; (approximately 9.0 billion litres of water is treated on the site every year);
- completing the breach of the Fresh Water Supply Dam;
- completing applying for a new water licence. A new water licence was issued in March 2004;
- conducting environmental assessments;
- facilitating public consultations; and
- undertaking tailings decommissioning studies and closure alternative studies.

The emphasis continues to be on minimizing any risk to the environment and releasing only water compliant with the terms of the relevant water license into the surrounding environment. INAC spent approximately \$14 million on activities at the Faro Mine, which represents nearly 23% of the program's total expenditures.

RESOLUTION ISLAND

Over \$4 million worth of remediation work took place at Resolution Island in 2002-2003. Significant progress continued during this reporting period. In 2003-2004, over \$12 million was spent on site remediation including:

- excavating PCB and other contaminated soils (over 3,200 m³);
- shipping over 2,000 m³ of contaminated soil off site;
- establishing a soil testing lab;
- collecting asbestos-lined water lines;
- demolishing an old PCB-storage building;
- installing monitoring wells; and
- incinerating approximately 53,000 litres of waste petroleum, oil and lubricants.

The progress is positive. More than twice the amount of waste oil was incinerated compared to the previous reporting period. The Tier II landfill construction was also initiated, setting up the infrastructure for future disposal.

KITTIGAZUIT BAY

A large portion of the remediation at Kittigazuit Bay was completed in late summer and fall 2003 through a contribution agreement with Inuvialuit Projects Inc., a subsidiary of the Inuvialuit Development Corporation. The second phase of clean-up also occurred in the 2003-2004 reporting period, which included a major hydrocarbon delineation program. The results from this has led to the 2004-2005 work plan, which will address hydrocarbon contamination on site that is above industrial criteria, as well as a geophysical survey to ensure there are no other sources of contamination below surface.

Priority Sites

Sites that receive an NCS Class 1 rating are considered priority contaminated sites. These priority sites are the focus of many CSP activities due to higher associated risks related to the sites. **Table 4** on the following page illustrates the status of these priority sites according to the Contaminated Sites Management Working Group (CSMWG) ten-step process.⁶

Of the 36 identified priority sites, 13 have progressed to a higher step in the ten-step process compared to last year; 12 have remained at the same step; and four sites are new to the priority list. Mount Nansen, Yukon, as an example, moved from step 5 in 2002-2003 to reach step 7 in the CSMWG process of developing a remediation/risk management strategy. Similarly, Sarcpa Lake,

Nunavut, moved from step 4 to step 8. Three sites were removed from this priority list – Tununuk, NWT, became a contingent liability and Nadluardjuk Lake and Stuart Point, Nunavut, have been reclassified to Class 2. None of these sites advanced to a higher step in the ten-step process compared to last year.

The activities that take place at each site vary depending on where they are along this ten-step process. **Table 5** illustrates the number of sites where various types of activities took place over the last three fiscal years.

During 2003-2004, remediation took place at nine NCS Class 1 sites, up from six the previous year. These sites included:

Yukon

- Faro
- UKHM
- Clinton Creek
- Hydrometric Stations
- Sites under Yukon Devolution

NWT

- Colomac
- Giant Mine
- Silver Bear

Nunavut

- Resolution Island



Tailing water-quality monitoring at Colomac

⁶ More information about the ten-step process is available from our Web site at http://www.ainc-inac.gc.ca/ps/nap/consit/14csrep0102_e.html.

COLOMAC

Colomac is an abandoned gold mine in NWT that INAC became responsible for in 1999. INAC and the Tli Cho people have entered into a full partnership to manage the site at all levels. Together, they have evaluated options for remediating the site and have come to a consensus on the best approach in order to protect the environment. Project participants are currently gathering traditional knowledge and incorporating it into the site remediation work plan. Specific 2003-2004 results have focussed on water and tailings management, roads and airstrip work, additional assessments, consultation with the affected communities, as well as improvements to camp facilities and supplies, such as new fuel storage tanks, and ongoing monitoring. Going forward, the Colomac project will seek regulatory approvals for the remediation plan and work on progressive remediation in order to prepare for the larger scale remediation expected to take place in 2006 and beyond.



Aerial views of Colomac Mine



Financials

Expenditures

CSP spent approximately \$61.5 million in 2003-2004, an increase of approximately \$24.4 million from expenditures in the previous fiscal year.

Figure 3 illustrates the program's expenditures by region over the last 13 fiscal years. Over the last several years, the budget for the program has been steadily increasing as large abandoned mines have been added to CSP's inventory.

Figure 3: Expenditures by Region, 1991-2004

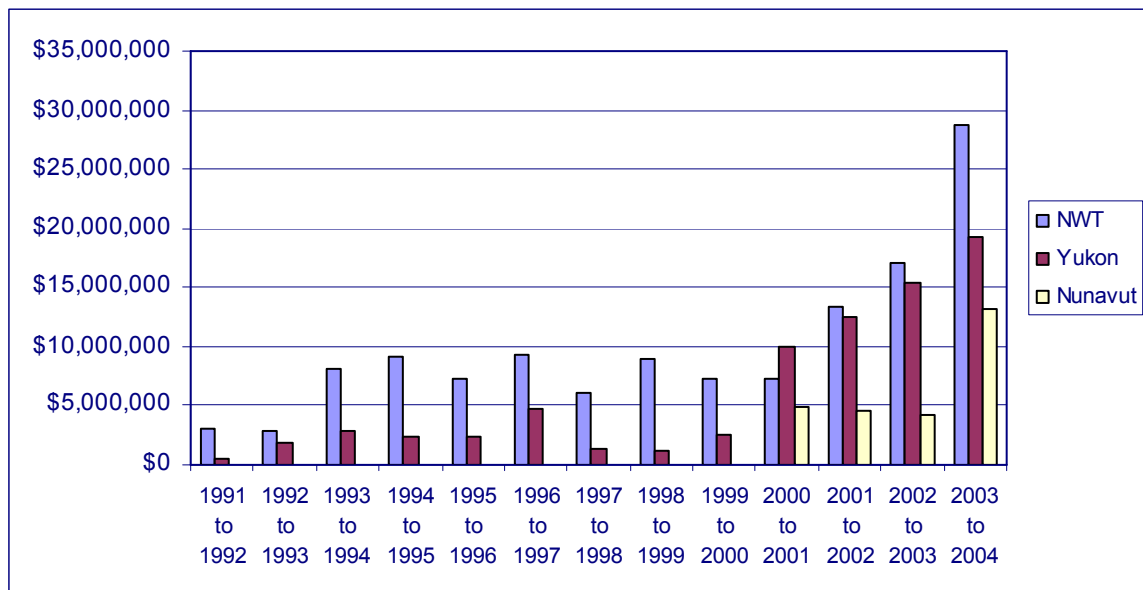


Table 6 illustrates the expenditures by site over the last three fiscal years, indicating the major activities that were funded. As indicated, some sites had assessment work done in the past, but no further work has been completed. The CSP's limited resources require that funds are directed at priority sites. For this reason, assessed sites where contamination is found, may have to wait for remediation because they represent a lower priority in terms of risk.

Legend
















































































































































Care & Maintenance		Monitoring	
Assessment		Project Management	
Regulatory Approvals		Urgent Works	
Consultation			
Remediation			

Table 6: Expenditures by Site, 2001 – 2004

Site Name	2001-02	2002-03	2003-04
NORTHWEST TERRITORIES			
Axe Point	\$152,694 		\$32,500 
Beaverlodge Lake			\$8,142 
Cat & Grainger Camp	\$464,374 		
Colomac	\$5,382,455   	\$8,157,833       	\$16,534,508       
Contact Lake	\$11,043 	\$4,820 	\$7,200 
Discovery	\$90,000 	\$398,247   	\$405,922      
Giant	\$5,218,000    	\$5,751,500     	\$8,268,349       
Horton River		\$20,000 	\$41,000 
Jean Marie River		\$28,155 	\$14,000 
Kittigazuit Bay		\$800,000 	\$836,000   
Port Radium	\$1,775,000 	\$1,500,000   	\$2,126,000   
Radio Island	\$83,000 		
Rayrock	\$206,000 	\$140,000 	\$105,000 
Silver Bear		\$103,086 	\$38,800 
Tundra	\$135,000 	\$71,868  	\$166,451 
Sub-Total	\$13,517,566	\$16,975,509	\$28,583,872

Site Name	2001-02	2002-03	2003-04
YUKON			
Arctic Gold & Silver	\$24,000	\$2,500	\$7,000
			  
Brook's Brook	\$77,000	\$2,000	\$8,000
			  
Clinton Creek	\$140,000	\$500,000	\$863,235
		  	   
Faro	\$8,263,000	\$13,124,750	\$14,068,369
	  	  	   
Hydrometric Stations			\$113,000
			
Ketza River	\$125,000		
			
Mount Nansen	\$2,050,000	\$1,665,000	\$953,088
	 	 	   
Peel River	\$986,000	\$2,000	\$14,000
			  
Snag	\$5,000	\$3,500	\$8,000
			  
UKHM	\$850,000		\$1,935,408
			  
Venus Tailings	\$2,000	\$1,500	\$6,000
			  
Yukon Devolution *			\$982,000
			  
Sub-Total	\$12,522,000	\$15,301,250	\$18,958,100

* 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 nine years to clean up these sites. The CSP was only able to spend just under \$1 million during the 2003-2004 fiscal year.


























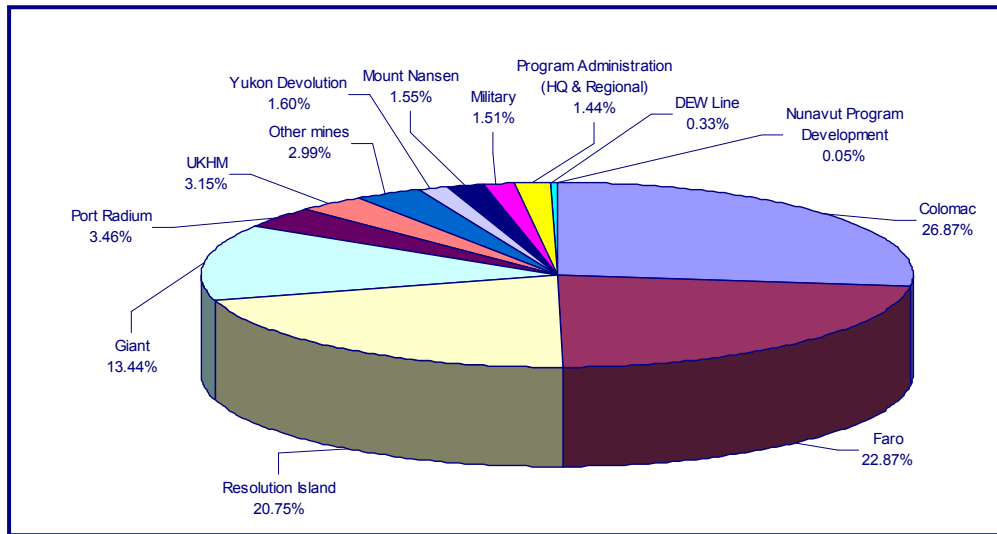
Site Name	2001-02	2002-03	2003-04
NUNAVUT			
Akpatok Lake			\$2,500 
BAF 3 - Beevort		\$11,300 	
Bear Island	\$73,000 		
Bernard Harbour		\$22,280 	
Cape Christian	\$91,905 	\$27,900 	\$29,760 
Cape Peel		\$22,280 	
Clifton Point		\$22,280 	
Durban Island		\$27,900 	\$29,400 
Ekalugad Fiord		\$27,900 	\$29,610 
Nunavut Program Development			\$32,566 
Padloping Island	\$91,500 	\$27,900 	\$28,550 
Resolution Island	\$4,235,202 	\$4,015,000 	\$12,766,714 
Roberts Bay			\$75,000 
Ross Point		\$22,280 	
Sarcpa Lake		\$2,000 	\$104,247  
Sub-Total	\$4,491,607	\$4,229,020	\$13,098,347
Program Administration (HQ & Regional)		\$599,724	\$885,843
Total	\$30,531,173	\$37,105,503	\$61,526,162

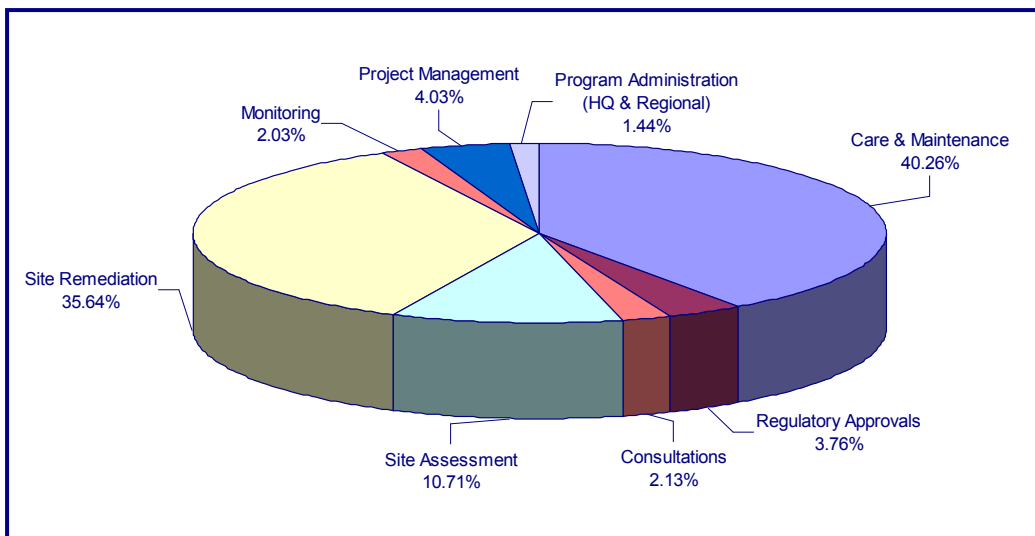
Figure 4 identifies the proportion of expenditures by site in 2003-2004, clearly illustrating that the large mines account for the greatest share of the program’s expenditures.

Figure 4: Proportion of Expenditures by Site, 2003-2004



As indicated above, the large mines account for the greatest share of the program’s expenditures. By activity, the largest proportion of expenditures in 2003-2004 went towards care and maintenance (40%) and site remediation (35%). **Figure 5** illustrates CSP expenditures by activity.

Figure 5: Program Expenditures by Activity, 2003-2004



The primary source of funds that enabled CSP to undertake these activities and achieve a number of results at priority sites came from the Federal Contaminated Sites Accelerated Action Plan (FCSAAP) program. During the 2003-2004 fiscal year, the CSP received \$39.4 million from FCSAAP, or 60% of CSP's total

budget. Without this injection of funds, the program would not have been able to undertake as many activities at the number of sites that it did. As **Table 7** illustrates, the remaining budget was funded by existing departmental funds.

Table 7: CSP Source of Funds 1999-2004

Source of Funds	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004
INAC	\$9,868,747	\$21,139,607	\$8,621,000	\$27,843,503	\$22,468,514
Program Integrity	\$0	\$0	\$19,023,435	\$9,262,000	\$0
FCSAI / FCSAAP *	\$0	\$1,000,000	\$1,925,000	\$0	\$39,439,200
TOTAL	\$9,868,747	\$22,139,607	\$29,569,435	\$37,105,503	\$61,907,714

* Federal Contaminated Sites Assessment Initiative (FCSAI) funds were received from Treasury Board in 2000-2002 to conduct site assessment work. The Federal Contaminated Sites Accelerated Action Plan (FCSAAP) program was designed to address the significant financial and environmental liabilities associated with federal contaminated sites and began its first year of operation in 2003-2004.

Note: A total of \$381,552 funds were received in 2003-2004 and not spent.

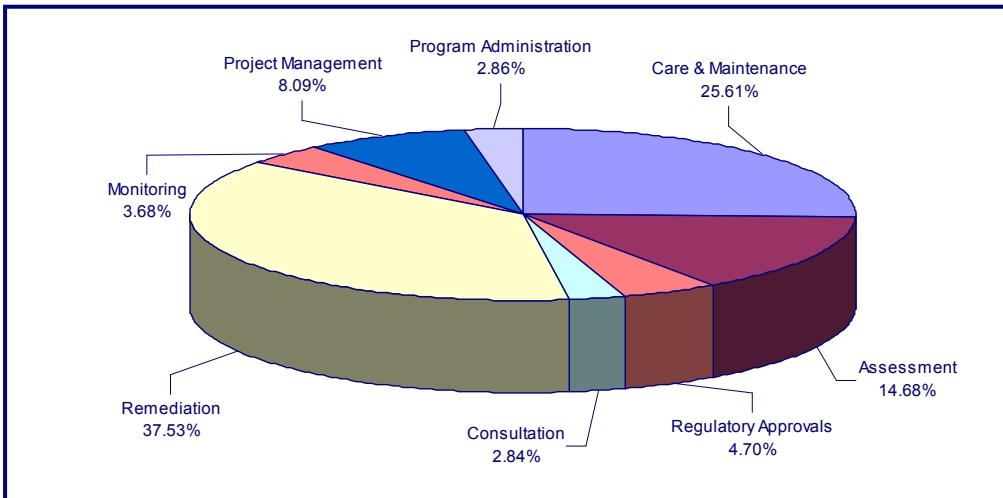
Based on the number of priority sites in the CSP inventory and the activities that need to take place for the program to meet all regulatory and policy requirements, necessary funds for the 2004-2005 fiscal year are projected at \$69.9 million. **Figure 6** illustrates the budget forecast for the 2004-2005 fiscal year, which shows that remediation and care and maintenance will again absorb the majority of CSP's budget. The projection for 2004-2005 marks a shift in spending. Remediation is forecasted to account for the largest portion of the budget. Care and maintenance costs are anticipated to continue to decrease as major mine properties advance to implementing final abandonment and restoration plans.

FCSAAP

The Federal Contaminated Sites Accelerated Action Plan (FCSAAP) program is a collaborative effort among various federal departments and agencies to identify and prioritize high-risk contaminated sites, and then to provide funds to ensure effective risk management and/or remediation of the highest risk sites. FCSAAP provides a long-term mechanism to accelerate the remediation of these high-risk federal contaminated sites and, thereby, reduce the financial liabilities associated with them. The program is expected to reduce federal liability by close to \$700M over its first five years.

Environment Canada and the Treasury Board Secretariat jointly administer FCSAAP. Program delivery is undertaken by federal government departments with high-risk contaminated sites (referred to as custodial departments). Technical expertise is provided by three Expert Support Departments – Environment Canada, Health Canada and Fisheries and Oceans Canada.

Figure 6: Budget Forecast by Activity, 2004-2005



Liabilities

The liabilities associated with the contaminated sites, for which INAC is the custodian, are based on engineering and site inspection reports prepared by qualified personnel. In order to track the quality of liability estimates, the program monitors the percentage of indicative versus substantive estimates used to determine site liabilities. Substantive liability estimates are considered to be of higher quality and reliability. As of March 31, 2004, 26.6% of liabilities were substantive, an increase in the quality of liability estimates of 12.3% over the previous year. The majority of liability estimates (73.4%) are indicative, pending further assessment work.

Sites are continually undergoing various levels of assessment and remediation; therefore, liability figures may fluctuate from year to year. At a number of the mine sites, delaying active closure and reclamation activities increases liability significantly due to the high annual care and maintenance costs. As of March 31, 2004, INAC was responsible for a total liability of approximately \$804 million up from \$754 million in 2002-2003, a 7% increase. Although the number is higher, it is considered more accurate due to the increased assessment work completed during the year. Most of this liability is associated with 36 sites, which have accordingly been designated as high-priority sites. Kittigazuit Bay, NWT, was not removed from the list this fiscal year as scheduled because remediation is not complete. Remediation is anticipated to be completed by October 2004.

As sites are remediated and further assessments are conducted, the Department's overall liability fluctuates. **Table 8** and **Table 9** identify the program's overall liability by region, in dollars, and by regional proportion (percentage of liability in each region). Compared to the previous year, liabilities have increased across all regions. When compared over a three-year period, however, Yukon's liability has increased by 43%, but NWT's liability has decreased by 6%. Nunavut's liability has shown only a slight increase over the three reporting periods. Yukon's liability has increased substantially due to further assessments being conducted at Faro Mine and identifying increased liabilities, and because the United Keno Hill Mine site was moved from being listed

as a contingent liability.⁷ The decrease in NWT is explained by the reduction in liability associated with Contact Lake, remediation at Kittigazuit Bay, and Tununuk being reclassified as a contingent liability. Nunavut's liability has increased because further assessment work has identified new contaminated sites, such as Roberts Bay Mine, and increased the estimates for other sites (Radio Island and Clifton Point).

Table 8: Liability by Region, 2001-2004

Region	Estimated Cost of Evaluation and Remediation			
	Liability			
	2001-02	2002-03	2003-04	% Change 2001-04
Yukon	\$226,851,400	\$283,781,000	\$323,386,000	+43%
NWT	\$341,730,000	\$316,227,505	\$321,720,643	-6%
Nunavut	\$154,653,000	\$153,853,000	\$158,840,110	+3%
Total	\$723,234,400	\$753,861,505	\$803,946,753	+11%

From a regional proportion perspective, the Yukon and NWT each account for 40% of the Department's liabilities, and Nunavut accounts for 20%. The majority of the overall liability (70%), however, is associated with five of CSP's major sites – Faro Mine, UKHM (Yukon), Giant, Colomac (NWT) and Resolution Island (Nunavut).

Table 9: Regional Proportion of Liability, 2001-2004

Region	Regional Proportion of Estimated Cost of Evaluation and Remediation		
	Liability		
	2001-02	2002-03	2003-04
Yukon	31%	38%	40%
NWT	47%	42%	40%
Nunavut	21%	20%	20%
Total	100%	100%	100%

⁷ See definition of contingent liability on page 6 of this report.

Social and Economic Benefits

The implementation of contaminated sites management projects in northern Canada has a substantial impact on the economic well-being of the territories. CSP operates with the intent of ensuring that, to the greatest extent possible, the social and economic benefits from project activities accrue to northern and Aboriginal communities.

The information compiled at major projects over the last few years supports the objective that remediation projects have a positive influence on local economies.

As an example, enhancing the skills of the local labour force is an objective of the program and is essential to the continued success of the program. At Resolution Island, 91% of project staff is Inuit, and 20% of person days were dedicated to training in 2003-2004.

CSP projects help support the communities where they operate by providing jobs and purchasing goods and services from northern suppliers. At the Giant Mine, for example, nearly \$6 million has been injected into the economy for purchasing goods and services from northern suppliers. At Faro Mine, \$7.3 million has been injected into the Yukon economy in 2003-2004. The expenditures towards the breach of the freshwater supply dam alone generated \$1.4 million into the Yukon using local labour and engineering support.



Workers unloading a truck at Colomac Mine

DISCOVERY MINE

The fieldwork completed by Aboriginal Engineering at the site included site monitoring work, stabilization of erosion control and a vegetation enhancement project. Four Aboriginal staff logged 405 hours. Training was delivered to all employees on the site. It included:

- Hazard material handling;
- Erosion control;
- Project logistics;
- Supervision;
- Project planning;
- Site remediation recommendations; and
- Water sampling.

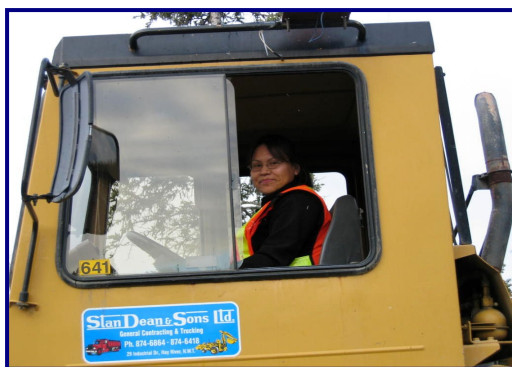
RESOLUTION ISLAND

Qikiqtaaluk Corporation, an Inuit-owned company, has been contracted by INAC to conduct the clean-up of primarily PCB-contaminated soils at the Resolution Island Project. The benefits of this project on employment and the percentage of Inuit workforce involved in the project are significant. The following table illustrates the steady progression in the percentage of Inuit employed at the Resolution Island Project compared to the total labour force. It also identifies the total spent on salaries and fees over a five-year period. The total spent on salaries and fees fluctuates depending on the work conducted in each year.

Project Year:	1999	2000	2001	2002	2003
Percentage of Inuit workforce (%):	78	80	82	85	91
Total spent on salaries (\$,000):	1,350	1,350	900	800	1,700

The Resolution Island Project also contributes to business opportunities for sub-contractors and suppliers in the local economy. It is estimated that over 30 organizations directly benefit from the project. The project also contributes to the long-term economic development of Nunavut through the many training opportunities associated with the project. In 2003-2004, for example, 20 workers received training in Hazardous Waste Operations and Emergency Response (HAZWOPER), 12 people received First Aid training, and others received job training in heavy equipment operation, construction trades, such as carpentry, electrical, plumbing and welding, as well as training in administration. The table below indicates the total number of person-days on the job versus the total number of person-days dedicated to training over the last three years.

Project Year:	2000	2001	2002	2003
Total number of person-days:	4,200	2,900	2,500	4,175
Person-days dedicated to training:	1,000	725	750	835
Percentage of training hours:	25	30	30	20



Heavy equipment operations training - Resolution Island



Employment opportunities Resolution Island

GIANT

INAC's focus at Giant Mine has been on care and maintenance of the site while developing a remediation plan for the site. INAC has, either directly or indirectly through its Technical Advisor, completed extensive site assessment and baseline environmental studies, often employing local labour and contractors. Full-scale implementation of the Remediation plan at Giant Mine is not expected to begin until 2007-2008, when increased demand for local labour will occur.

Socio-economic impacts related to INAC's operations at the site are identified in the table below.

Project Year:	2003-2004
Number of Project employees:	8
Number of northern suppliers:	34
Dollar value to northern suppliers:	\$5,917,870
Percentage value of total expenditures to northern suppliers:	75%

COLOMAC

The Colomac Mine remediation site offers the Tli Cho communities an opportunity for employment and training. Tli Cho Logistics is a local company that supplies services to INAC in servicing the needs of this site. INAC understands the impact of high unemployment rates in the community and works with Tli Cho Logistics to provide jobs and training for local people. Of Tli Cho Logistics' 103 staff members, 80% are First Nations, Inuit, Métis or Northerners. Tli Cho Logistics has conducted a skill-level assessment of its staff and, in response, has developed an internal capacity building plan in order to move First Nations, Inuit and Métis employees from the more unskilled categories, to the skilled and professional categories. The corporate goal is to raise the skill levels of 50 employees over the next 15 months. Individualized training plans are also being developed to clearly identify the outside training needs and on-the-job training skills needed by different individuals. This focus on capacity building will ensure the successful implementation of activities at the site as work progresses from assessment to remediation. It will also ensure lasting skills development for members of the local community.



Community consultations at Colomac



Polluter Pays

As CSP assesses the suspected sites in its inventory, the entity responsible for any contamination is determined and an attempt is made to ensure that the “polluter pays” for the clean-up.

Mine reclamation policies are in place for the NWT and Nunavut. These policies aim to protect the environment and human health in northern communities by effectively addressing the disposition of liability relating to mine closures at operating mines.⁸ The intent is to ensure that the “polluter pays” principle is consistently applied to all new mineral development activities to support the practice of sustainable development.

Future Directions

The CSP has accomplished a lot during the reporting period, but we are committed to building on our successes. Future plans for the 2004-2005 fiscal year include a number of program management-related goals including:

- securing long-term funding for the implementation of closure plans at high-risk sites;
- conducting a program/project management review;
- completing a risk management tool and rolling out the process to all sites;
- completing a procurement strategy; and
- updating the Contaminated Sites Management Framework (procedures and results-based management framework [RMAF]).

The program/project management review will identify areas where processes or systems are not in place according to the CSP Management Framework. Specifically, the objectives of the review will be to:

- implement the internal audit program;
- establish a baseline of program and project management practices;

- identify gaps that require management attention and resources; and
- identify best practices that can be shared between projects and regions.

As discussed earlier in this report, CSP conducted risk management pilots at a few sites. Based on the results of these pilots, CSP will develop a Risk Management Procedure for the program; implement the procedure at all sites; and roll-up the site-level assessments, review results, and compile and report on lessons learned by the end of fiscal year 2004-2005. This will ensure a more accurate application of resources to the highest risk sites within the program.

CSP also plans to examine the specific mine reclamation work and the associated procurement mechanisms used throughout the program in order to develop a consistent procurement/contracting strategy.

Program staff will update the Contaminated Sites Management Framework and RMAF for the program. The Management Framework is integral to the program; therefore, it is necessary to update it to ensure it remains current and applicable.

Combined with these program-related goals, there are a number of site-specific goals, including:

- continued care and maintenance at several mine sites;
- assessments at two military sites in Nunavut;
- submitting a Giant Mine Remediation Plan to the regulatory agency;
- commencing remediation at Colomac;
- completing remediation work at Kittigazuit Bay; and
- continuing remediation at Resolution Island.

These are only some of the specific initiatives that will take place over the next year. Our work will continue to focus on making progress at all of our priority sites and conducting more assessment and remediation projects to reduce the risk to human and environmental health. CSP is committed to continual improvement and meeting its responsibilities of managing contaminated sites in the North

⁸ Mine site reclamation policies are available at: http://www.ainc-inac.gc.ca/ps/nap/recpol_e.html.

according to the principles of sustainable development.

If you have any questions or comments about this report or require further information, please contact Joanna Ankersmit, Director, Contaminated Sites Program at (819) 997-7247 or ankersmitj@inac.gc.ca.

LIST OF ACRONYMS

ADM	Assistant Deputy Minister
CCME	Canadian Council of Ministers of the Environment
CSMWG	Contaminated Sites Management Working Group
CSMWT	Contaminated Sites Management Working Team
CSP	Contaminated Sites Program
C&M	Care & Maintenance
DEW	Distant Early Warning
DTA	Devolution Transfer Agreement
FCSAAP	Federal Contaminated Sites Accelerated Action Program
FCSAI	Federal Contaminated Sites Assessment Initiative
HAZWOPER	Hazardous Waste Operations and Emergency Response
HQ	Headquarters
INAC	Indian and Northern Affairs Canada
NAP	Northern Affairs Program
NCS	National Classification System
NWT	Northwest Territories
OAG	Office of the Auditor General
PCB	Polychlorinated Biphenyls
TBS	Treasury Board Secretariat
UW	Urgent Works
WHMIS	Workplace Hazardous Material Information System
YTG	Yukon Territorial Government