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FEDERAL CONTAMINATED SITES ACTION PLAN (FCSAP)

ANNUAL REPORT 2016-2017

Federal Contaminated Sites Action Plan: Annual Report 2016–2017

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EXECUTIVE SUMMARY

Established by the Government of Canada in 2005, the Federal Contaminated Sites Action Plan (FCSAP) is a 15-year, $4.54-billion program. Its primary purpose is to reduce environmental and human-health risks from federal contaminated sites and their related financial liabilities.

In Phase I of FCSAP (2005–2011), federal departments, agencies and consolidated Crown corporations (also referred to as custodians) made significant progress in addressing contaminated sites. Phase II of FCSAP was approved in the 2011–2012 fiscal year for five years. The focus within Phase II (2011–2016) was to characterize and prioritize the federal inventory of sites as well as advance remediation on the highest priority sites. Phase III of FCSAP has been approved for 2016–2020 and has increased the focus on remediation as well as reducing the associated environmental and human-health risks and financial liabilities. This report describes the progress made in 2016–2017, the first year of Phase III.

Nationally, federal custodians involved in FCSAP reported total expenditures of $391.8 million, which includes the custodian cost share. In 2016–2017, $21.0 million (5%) was spent on assessments, $346.3 million (88%) was spent on remediation and risk management and $24.5 million (7%) was spent on program management activities. The program achieved the following results:

- Custodians conducted assessments at 326 sites to characterize environmental conditions. Of the 142 sites that were fully assessed, 89 sites (63%) require remediation or risk management while 53 sites (37%) require no further action because they pose no significant risk. The remaining 184 sites require further assessment.
- Custodians conducted remediation and risk-management activities at 680 sites reducing risks to the environment and human health and reducing federal financial liability. Remediation was completed at 103 sites. The remaining 577 sites require further work.
- Approximately 1,900 jobs (person-years) were created or maintained, which is the equivalent of an estimated 5.2 direct jobs for every million dollars spent on FCSAP projects.

Every year, the main results of the FCSAP program including expenditures and site status are reported in the Federal Contaminated Sites Inventory (FCSI), which is maintained by the Treasury Board of Canada Secretariat. At the end of 2016–2017, there were 23,279 sites listed in the inventory. When comparing the 2016–2017 inventory with the 2015–2016 inventory, there was a 12% decrease in the number of suspected sites and a 2% decrease in the number of active sites being assessed or remediated. There was also a 4% increase in sites that are closed and require no further action.

FCSAP funding allows custodians to conduct assessment and remediation work at their sites. In 2016–2017, approximately 77% of expenditures reported to the FCSI were attributable to FCSAP.

Contamination of federal sites may result in liability for the Government of Canada. This depends on meeting certain accounting criteria. In 2016–2017, the total liability for the remediation of all federal contaminated sites decreased by $329 million, from $6.274 billion to $5.945 billion. Adjusted liability, an estimate of the liability for sites that may be eligible for FCSAP funding, decreased by $309 million, from $5.154 billion to $4.845 billion. Changes in liability can occur due to adjustments for inflation, the recording of new liabilities for unassessed sites and revised cost estimates for the remediation of federal contaminated sites. Adjusted liability is expected to decline as fewer new sites are added to the federal inventory and more existing sites are remediated and closed.

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ABBREVIATIONS AND ACRONYMS

AAFC	Agriculture and Agri-Food Canada
CCME	Canadian Council of Ministers of the Environment
CSC	Correctional Service of Canada
DFO	Fisheries and Oceans Canada
DND	Department of National Defence
ECCC	Environment and Climate Change Canada
FCSAP	Federal Contaminated Sites Action Plan
FCSI	Federal Contaminated Sites Inventory
INAC	Indigenous and Northern Affairs Canada
JCCBI	Jacques Cartier and Champlain Bridges Incorporated
LED	Lands and Economic Development
NAO	Northern Affairs Organization
NCC	National Capital Commission
NRC	National Research Council of Canada
NRCan	Natural Resources Canada
PCA	Parks Canada Agency
PSPC	Public Services and Procurement Canada
TBS	Treasury Board of Canada Secretariat
TC	Transport Canada

1 INTRODUCTION

The Federal Contaminated Sites Action Plan (FCSAP) is a 15-year, $4.54-billion program introduced by the Government of Canada in 2005. Its goal is to reduce environmental and human-health risks posed by the highest-priority federal contaminated sites and the associated federal financial liabilities. Federal departments, agencies and consolidated Crown corporations are referred to as custodians of the FCSAP program and share costs with FCSAP. Federal contaminated sites are located on land or in aquatic areas owned or leased by the federal government, or where the federal government has accepted responsibility for the contamination. FCSAP projects on federal properties can include harbours and ports, military bases, airports, lighthouses, school facilities and fuel-storage tanks on reserve land, and abandoned mines. Contamination at these sites is usually the result of historical activities that took place without an understanding of the environmental consequences.

The FCSAP program provides a consistent approach to dealing with contaminated sites. Since the start of the program in 2005 to April 2017, $3.35 billion, including the custodian cost share, has been spent on the management of federal contaminated sites.

Environment and Climate Change Canada provides program administration through the FCSAP Secretariat with support from the Treasury Board of Canada Secretariat. Environment and Climate Change Canada, Fisheries and Oceans Canada, Health Canada and Public Services and Procurement Canada provide expert advice and technical assistance to custodians in support of the program. For more information about the administration of FCSAP, see Appendix A.

The program also provides socio-economic benefits by supporting brownfield redevelopment, promoting innovative and sustainable remediation technologies, and creating or maintaining jobs and training opportunities in the Canadian environmental remediation industry. These jobs and training opportunities extend to Indigenous Peoples and those living in rural areas.

FCSAP Objective

Reduce human-health and environmental risks and associated federal financial liabilities at the highest-priority federal contaminated sites.

Types of Funding

FCSAP provides funding for the assessment and remediation of contaminated sites that are under the responsibility of federal departments, agencies or consolidated Crown corporations and have been contaminated by historical activities, defined as occurring before April 1, 1998.

FCSAP funds the remediation of two classes of terrestrial[1] and aquatic[2] sites:

- **Class 1** - sites where there is a high priority for action or where action is required.
- **Class 2 -** sites where there is a medium priority for action or where action is likely required. To be eligible for funding in FCSAP Phase II and III, Class 2 sites must have reported FCSAP remediation expenditures before April 1, 2011.

FCSAP is a cost-shared program that funds 85% of total remediation costs for projects under $90 million, with custodians funding the balance. Remediation projects with total cost estimates of more than $90 million may be funded entirely by FCSAP. The program also funds 80% of total site-assessment costs, with custodians funding the balance.

Federal Infrastructure Initiative funding was also available to custodians in the 2016–2017 and 2017–2018 fiscal years for the assessment and remediation of federal contaminated sites.

Contaminated Site

According to the Treasury Board of Canada's Policy on Management of Real Property, a contaminated site is "a site at which substances occur at concentrations that: (1) are above background levels and pose, or are likely to pose, an immediate or long-term hazard to human health or the environment, or (2) exceed the levels specified in policies and regulations."

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1. Terrestrial sites are classified in accordance with the Canadian Council of Ministers of the Environment National Classification System for Contaminated Sites (2008): www.ccme.ca/en/resources/contaminated_site_management/management.html.

2. Aquatic sites are classified in accordance with the FCSAP Aquatic Sites Classification System (2012).

This report presents program results and achievements from the 2016–2017 fiscal year, the first year of Phase III.

More information on federal contaminated sites is available online at www.canada.ca/en/services/environment/pollution-waste-management/contaminated-sites.html.

2 PROGRAM RESULTS (2016–2017)

This section describes the achievements of the 15 custodians who conducted assessment and remediation activities in the 2016–2017 fiscal year. It also compares program progress against performance measurement targets established for Phase III of the Federal Contaminated Sites Action Plan (FCSAP). Case studies of assessment and remediation activities conducted during 2016–2017 at several FCSAP-funded sites are included in this report.

The FCSAP Secretariat worked with the Treasury Board of Canada Secretariat and custodians to establish performance indicators and two- and four-year targets to assess the program's performance against its objectives. The Federal Contaminated Sites Director General Steering Committee has approved these indicators and targets.

The indicators and targets identified in the FCSAP performance measurement strategy fall into three key program areas:

1. assessment
2. risk reduction
3. liability reduction

Overview of Program Results for the 2016–2017 Fiscal year

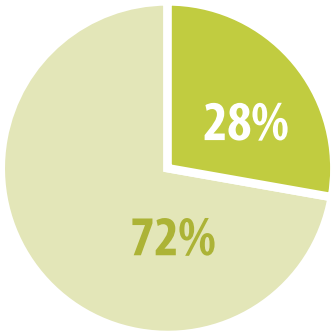
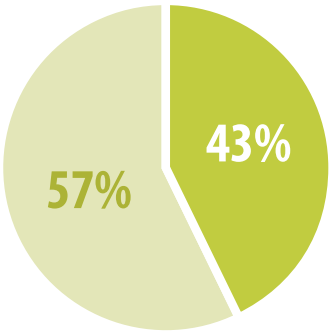
- Assessment activities on 326 sites cost $21.0 million, including the custodians' share of the costs. Of the 142 sites that were fully assessed, 89 sites (63%) require remediation or risk management while 53 sites (37%) require no further action. The remaining 184 sites require further assessment.
- Remediation and risk-management activities on 680 sites cost $346.2 million, including the custodians' share of the costs. Custodians completed remediation activities on 103 of these sites. The remaining 577 sites require further work.
- Adjusted liability, an estimate of liability for contaminated sites that may be eligible for FCSAP funding, decreased by $309 million during 2016–2017. This was mainly due to revised cost estimates for the remediation of large contaminated sites in Canada's north.

2.1 ASSESSMENT

Custodians may suspect a site of being contaminated as a result of past activities, for example, in places where fuel-storage tanks may have leaked. In such cases, custodians can conduct environmental site assessments to determine the nature and extent of contamination, or contract a specialized firm to carry out this work. An assessment determines whether remediation or risk-management activities are required at the site. In 2016–2017, FCSAP funded assessment activities on 326 sites at a program cost of $18.9 million. Of the 326 sites, 188 (58%) were funded through the Federal Infrastructure Initiative, at a cost of $13.3 million. An additional $2.1 million was spent as part of the custodian cost-share requirement.

After the first year of Phase III, 72% of the 2-year performance target and 57% of the 4-year performance target were met, as shown in Table 1. The 2- and 4-year targets were established based on planning information provided by custodians. These targets provide a good estimate of the number of assessment sites to be worked on in Phase III. Custodians are on track to meet this performance target.

Table 1: Performance indicator 1: assessing sites

Performance Indicator	Target
Number of sites where FCSAP-funded assessments are being conducted	 2-year target (2016-2017 to 2017-2018): 453 sites Remaining Completed
Result	**Target**
After 2016-2017: 326 sites	 4-year target (2016-2017 to 2019-2020): 569 sites Remaining Completed

An environmental site assessment may involve the collection and analysis of samples to determine levels of contamination. These levels are compared with environmental quality guidelines on the management of contaminants in soils, sediments, freshwater and marine water[1] published by the Canadian Council of Ministers of the Environment (CCME).

Federal contaminated sites are classified and prioritized in accordance with the CCME National Classification System for Contaminated Sites and the Aquatic Sites Classification System developed by FCSAP. To ensure that custodians take a common approach to managing federal contaminated sites, FCSAP follows a 10-step process to identify, assess and remediate contaminated sites. This process is detailed in Appendix B.

Figure 1 shows the results of completed site assessments. At the 326 sites where assessments took place, custodians completed the assessment process at 142 sites; 89 of these sites (63%) require remediation or risk management and 53 sites (37%) require no further action.

Figure 1: Results of completed site assessments (2016-2017)

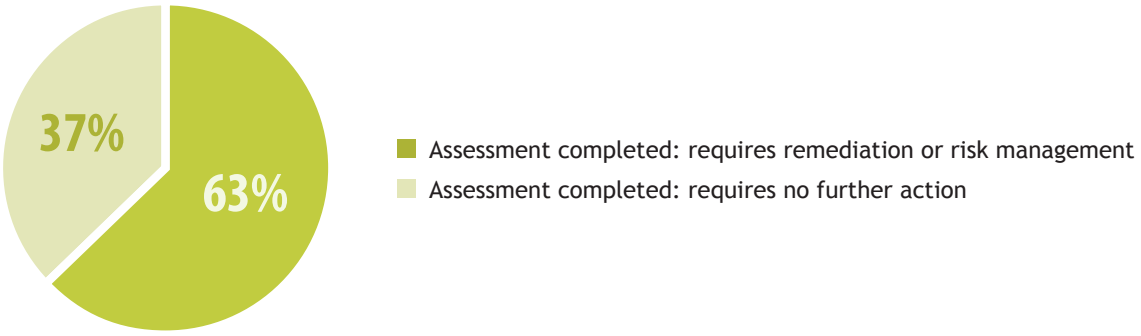


Table C.1 in Appendix C provides a detailed breakdown of the number of sites with assessment activity, available assessment funding and assessment expenditures for each custodian.

The custodians that spent the most on assessments were the Department of National Defence, Public Services and Procurement Canada, Indigenous and Northern Affairs Canada-Lands and Economic Development and Transport Canada. Together they spent $15.0 million of the $18.9 million (or 79%) of the FCSAP assessment expenditures reported in the 2016–2017 fiscal year. These four custodians conducted approximately 80% of FCSAP-funded site assessments (258 of 326 sites) in 2016–2017.

1. www.ccme.ca/en/resources/canadian_environmental_quality_guidelines/index.html

As Figures 2 and 3 show, the largest expenditures occurred in British Columbia and Ontario, accounting for 54% of all FCSAP assessment expenditures. The provinces with the largest number of sites with assessment activity were Ontario, British Columbia and Quebec (57% of the total).

Figure 2: Distribution of FCSAP assessment expenditures, by province or territory

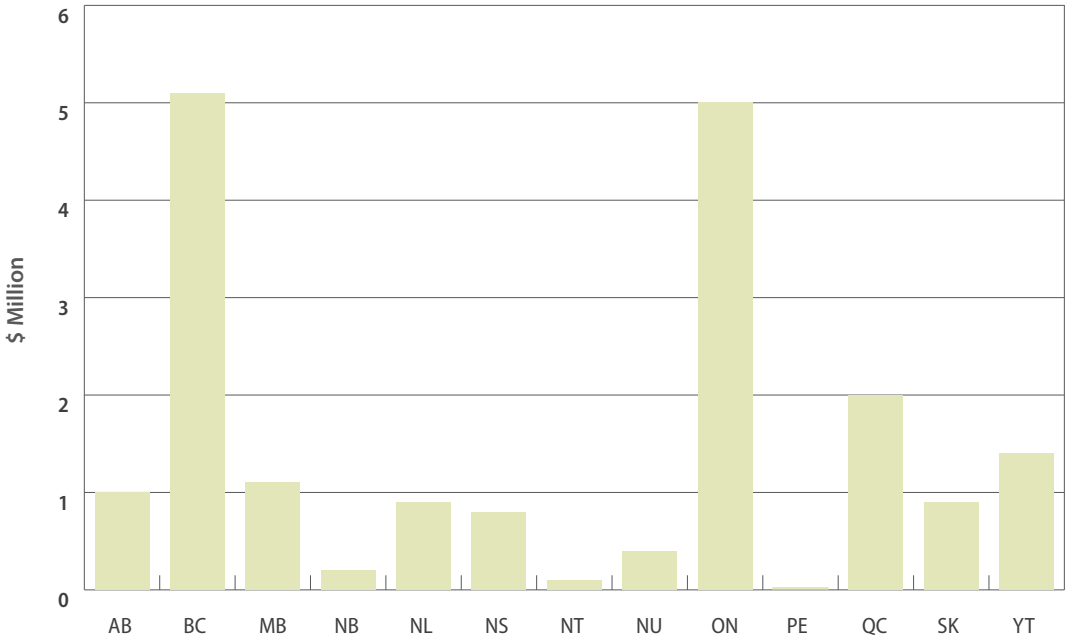
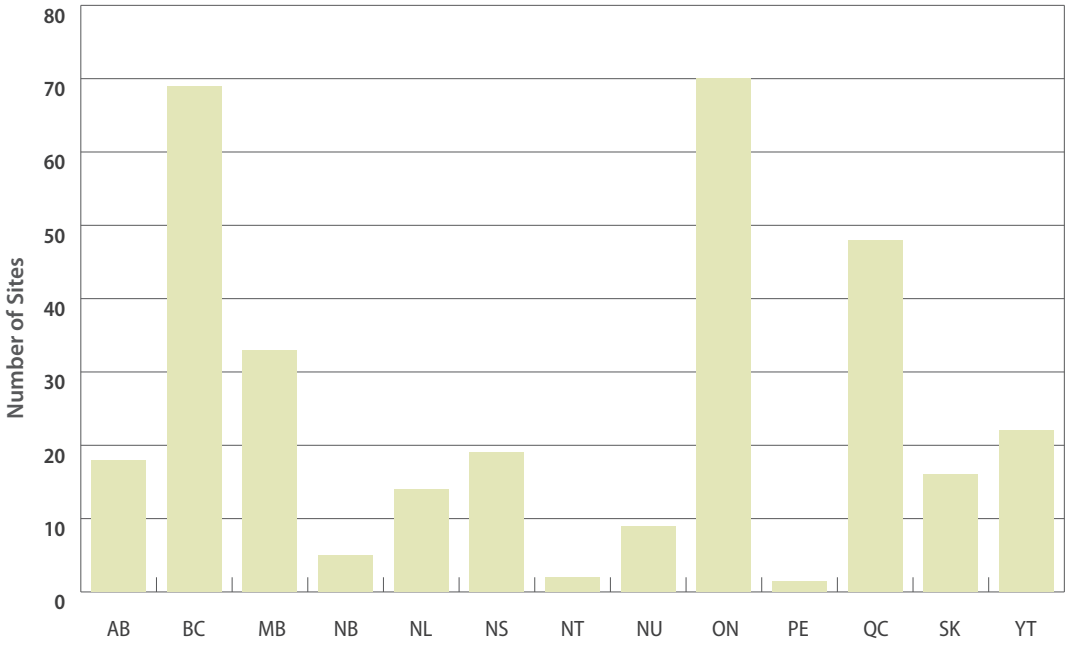


Figure 3: Number of sites with FCSAP assessment activity, by province or territory



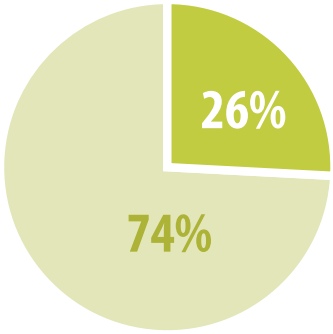
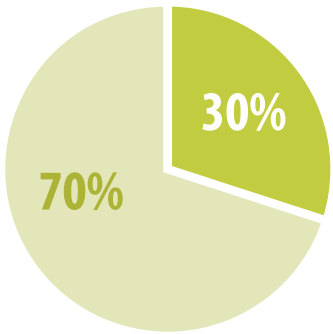
2.2 REDUCTION OF RISKS TO HUMAN HEALTH AND THE ENVIRONMENT

Completed site-assessment activities determine whether the risks to human health or the environment are unacceptable within established guidelines for contaminant limits. Custodians may then conduct remediation and risk-management activities at these sites. These activities can include the removal, treatment, reduction or containment of contaminants to prevent exposure that could affect human health or the environment. The methods used to address the contamination at each site depend on their efficacy, cost-effectiveness and the unique circumstances of the site.

In 2016–2017, FCSAP funded remediation activities at 680 sites, at a cost of $318.7 million. Of the 680 sites, 328 (48%) were funded through the Federal Infrastructure Initiative, at a cost of $33.4 million. An additional $27.5 million was spent as part of the custodian cost-share requirement. Table C.2 in Appendix C provides a breakdown of each custodian's share of the costs.

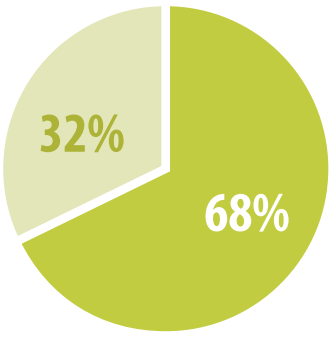
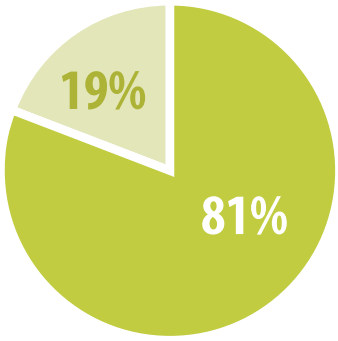
After the first year of Phase III, 74% of the 2-year performance target and 70% of the 4-year performance target were met, as shown in Table 2. The 2- and 4-year targets were established based on planning information provided by custodians. The targets provide a good estimate of the number of remediation sites that will be worked on in Phase III. The number of sites with remediation activities conducted by custodians is limited by the amount of funding that can be spent. Custodians did not spend all of the FCSAP funding available to them in 2016–2017 for reasons such as unpredictable weather conditions and contracting delays.

Table 2: Performance indicator 2: starting remediation

Performance Indicator	Target
Number of priority FCSAP-funded sites where risk-reduction activities are being conducted	 2-year target (2016-2017 to 2017-2018): 914 sites. Remaining, Completed
Result	**Target**
After 2016-2017: 680 sites	 4-year target (2016-2017 to 2019-2020): 974 sites. Remaining, Completed

In 2016–2017, remediation was conducted at 680 sites (step 8 of the 10-step federal approach to contaminated sites, detailed in Appendix B). Remediation was completed at 103 sites and risks to human health and the environment were reduced to safe levels. After the first year of Phase III, 32% of the 2-year target for completing remediation and 19% of the 4-year target were met, as shown in Table 3. The number of sites undergoing remediation varies from year to year. Weather or unanticipated technical issues may cause delays at some sites, especially at remote northern sites. The FCSAP Secretariat has increased performance monitoring and reporting requirements to the Federal Contaminated Sites Director General Steering Committee to assist custodians in meeting the program targets.

Table 3: Performance indicator 3: completing remediation

Performance Indicator	Target
Number of priority FCSAP-funded sites where risk-reduction activities have been completed	 2-year target (2016–2017 to 2017–2018): 320 sites Remaining Completed
Result	**Target**
After 2016–2017: 103 sites	 4-year target (2016–2017 to 2019–2020): 548 sites Remaining Completed

Two custodians accounted for 58% of the FCSAP remediation expenditures in 2016–2017. Indigenous and Northern Affairs Canada–Northern Affairs Organization (INAC-NAO) spent $128 million and the Department of National Defence (DND) spent $58 million. Both of these custodians are working on the remediation of large, complex and remote sites. For example, approximately $89 million (28%) of total FCSAP expenditures was spent in 2016–2017 at three projects. These projects are: Giant Mine in the Northwest Territories (INAC-NAO), Faro Mine in Yukon (INAC-NAO), and 5 Wing Goose Bay in Newfoundland and Labrador (DND). For a complete list of sites with FCSAP remediation expenditures, see Table C.5 in Appendix C.

As Figures 4 and 5 show, the largest expenditures occurred in British Columbia, the Northwest Territories and Yukon. This accounts for 68% of all FCSAP remediation expenditures. The provinces with the largest numbers of sites with remediation activity were Ontario, British Columbia and Quebec (50% of the total).

Figure 4: Distribution of FCSAP remediation expenditures, by province or territory

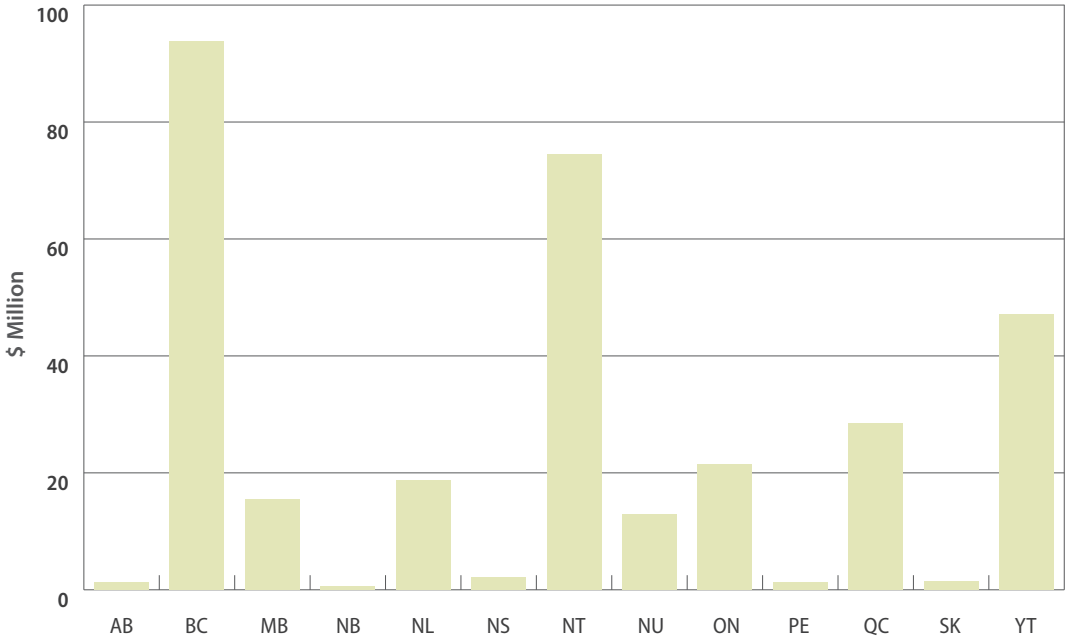
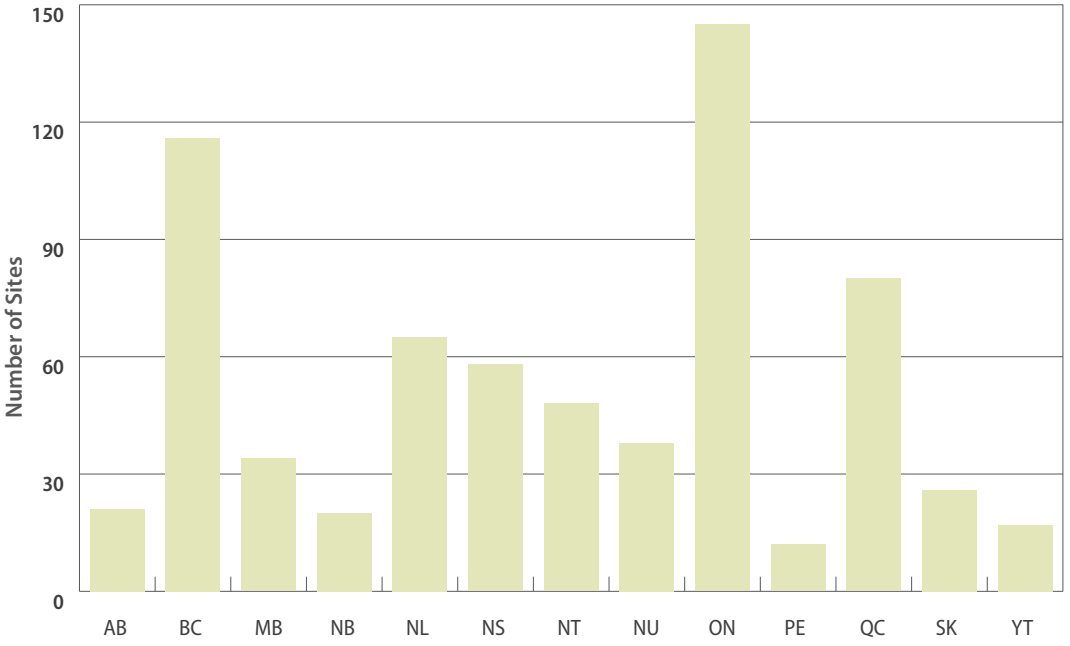


Figure 5: Number of sites with FCSAP remediation activity, by province or territory



2.3 LIABILITY REDUCTION

Environmental liabilities are the estimated remaining costs related to the remediation of contaminated sites. Specifically, where the Government of Canada is obligated, or will likely be obligated, to incur such costs. Liabilities are recorded annually in the Public Accounts of Canada.

Appendix D provides more information on the environmental liability of federal contaminated sites. A detailed breakdown by custodian can also be found in Appendix D.

FCSAP provides funding for a portion of the sites that make up the total environmental liability reported in the Public Accounts of Canada. Custodians also conduct work at contaminated sites that are not eligible to receive FCSAP funding.They are required, however, to report the expenditures and liabilities to the Public Accounts of Canada. Examples of sites that are not eligible for FCSAP funding include lower-risk sites and sites where the contamination occurred after April 1, 1998. Furthermore, some sites, such as the low-level radioactive waste sites of the Port Hope Area Initiative, have their own funding sources. For a more accurate estimate of the impact of FCSAP on the Government of Canada's total liability, see Table D.1 in Appendix D. This table provides a calculation of adjusted liability, which applies to contaminated sites that may be eligible for FCSAP funding.

From March 31, 2016 to March 31, 2017, the total liability for the remediation of contaminated sites, as reported in the Public Accounts of Canada, decreased by $329 million, from $6.274 billion for 2,400 sites to $5.945 billion for 2,400 sites. The adjusted liability also decreased by $309 million over the same period.

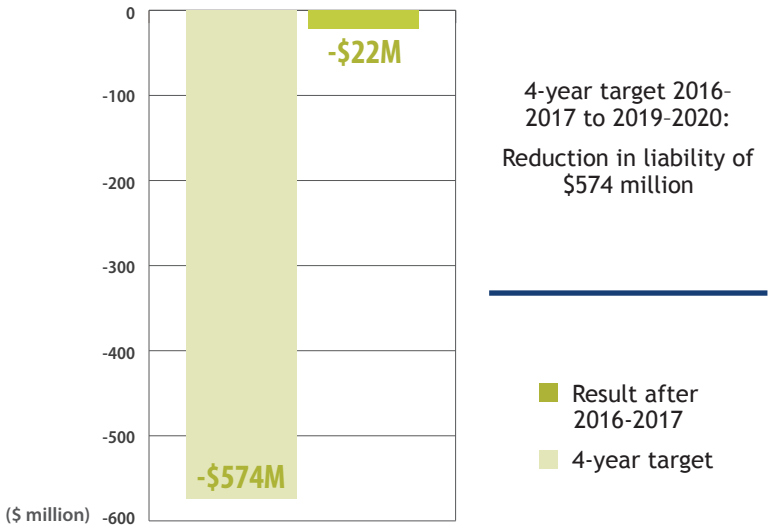
Changes to the liability for the remediation of contaminated sites can be attributed to several factors. Remediation expenditures at contaminated sites contribute to decreases in liability. Increases to remediation costs may result from the completion of assessment activities at sites and the reporting of liabilities for the first time. Changes to the estimated remediation costs can also occur as more information becomes available at sites. Furthermore, variability in the Consumer Price Index (through inflation) and in lending rates (through calculation of net present value) can affect the liabilities, especially for large projects. Liability reduction is not linear, but is variable and a decrease in liability in one year may be followed by an increase in liability the next year.

In 2016–2017, the custodian with the largest increase in adjusted liability was Environment and Climate Change Canada, which reported an increase in liability of $54 million. This increase was because of more stringent remediation criteria at a site. This led to a requirement to remove a greater volume of contaminated soil, as well as revised cost estimates for the disposal of the soil. The Department of National Defence also reported an increase in liability of $17 million. Among the 11 custodians that reported increases in liability, these two custodians accounted for 67% of the total increase in liability. Three custodians reported decreases in liability: Agriculture and Agri-Food Canada, Indigenous and Northern Affairs Canada (INAC) and Public Services and Procurement Canada (PSPC). INAC reported a decrease in liability of $374 million. This decrease is partially due to a change in the inflation and discounting rates used to calculate net present value, from March 2016 to March 2017, as well as expenditures on liability-reducing activities. PSPC reported a $40 million reduction in liability. Most of this decrease is because of remediation work completed in PSPC's Pacific Region, including most of the Esquimalt Graving Dock. The breakdown of liability by custodian can be found in Table D.2 in Appendix D.

In 2016–2017, the Public Accounts of Canada showed that remediation expenditures reduced liability by $414 million. These reductions were offset by $43 million in changes to estimated remediation costs and $42 million in new liability for sites not previously recorded. As detailed in Table D.3 in Appendix D, these were factors in the $329 million decrease in liability.

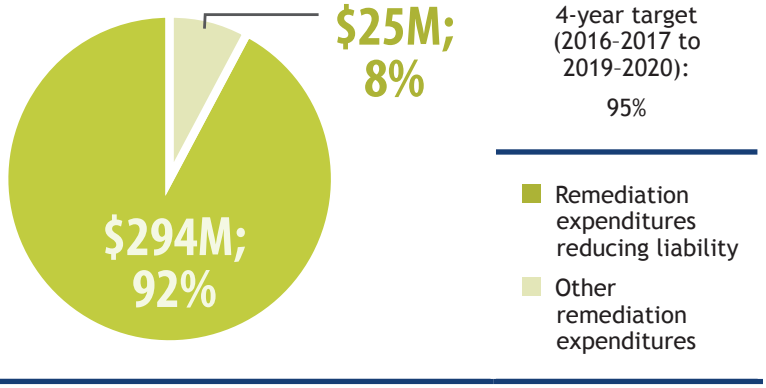
The FCSAP performance measurement strategy has two indicators for the reduction of liability, one of the objectives of FCSAP. The first indicator is based on a list of sites where the remedial action plan has been developed and remediation activities are planned for Phase III. Custodians have estimated that liability will be reduced at these sites by $574 million by the end of Phase III. As shown in Table 4, the liability at these sites decreased by $181 million during the first year of Phase III. This progress was offset by an increase in liability of $159 million, resulting in a net reduction in liability of $22 million.

Table 4: Performance indicator 4: reducing liability at FCSAP-funded sites

Performance Indicator	Target
Change in liability at FCSAP-funded sites	
Result	
After 2016-2017: Reduction in liability of $181 million (Net reduction in liability of $22 million)	

The second indicator relates to the percentage of remediation expenditures that reduce liability over the four years of Phase III. After the first year of Phase III, 92% of FCSAP remediation expenditures ($294 million of $319 million) led to reductions in liability. This is slightly below the target of 95%, as shown in Table 5. While most of a given site's remediation expenditures may be included in the liability estimate for the site, some remediation activities do not reduce liability. For example at a site where remediation activities are conducted but liability at the beginning of the fiscal year had not yet been recorded. Likewise, some expenditures for risk-management and monitoring activities are part of remediation plans but do not directly reduce contamination. They would not be considered expenditures that reduce liability.

Table 5: Performance indicator 5: liability reduction effectiveness

Performance Indicator	Target
Percentage of remediation expenditures that reduce liability over the four years of FCSAP Phase III	
Result	
After 2016-2017: 92%	

2.4 FCSAP SECONDARY BENEFITS

Many FCSAP projects have socio-economic benefits,especially in Indigenous communities and in northern or rural areas. Through joint ventures between custodians and local communities, work conducted on FCSAP sites offers opportunities for local residents and contractors to learn and develop skills, as well as build careers and businesses. The partnerships forged among workers and businesses, especially at the local level, help foster a sense of ownership of project results.

During the 2016–2017 fiscal year, FCSAP activities led to the creation of approximately 1,900 jobs[2], with an estimated 5.2 direct jobs created for every million dollars spent. These jobs provide income and fuel economic growth. FCSAP activities help workers develop skills, which can then be applied at other contaminated sites or other types of construction and engineering projects. For example, FCSAP remediation projects regularly employ Northerners and northern Indigenous Peoples as welders, heavy-duty mechanics, electricians and millwrights.

Through FCSAP, the Canadian remediation industry has an opportunity to advance new solutions when cleaning up federal contaminated sites. The program builds awareness of innovative and sustainable technologies by sharing success stories within the federal community and with the private sector. Case studies are profiled online, as well as in reports and at workshops for federal contaminated site managers and industry representatives.

2. Based on a multiplier from ECO Canada issued in 2007 and validated in 2014.

2.5 IMPACT OF FCSAP ON THE FEDERAL CONTAMINATED SITES INVENTORY

The Federal Contaminated Sites Inventory (FCSI), managed by the Treasury Board of Canada Secretariat, includes information on federal contaminated sites under the custodianship of departments, agencies and consolidated Crown corporations, and on non-federal contaminated sites for which the Government of Canada has accepted financial responsibility.

Before FCSAP was established in 2005–2006, the FCSI contained approximately 2,000 suspected and 4,200 active federal contaminated sites. Since then, custodians have added sites to the Inventory when they suspected contamination and have conducted assessment and remediation activities at these sites, if required.

As of March 31, 2017, the FCSI contained 23,279 sites, of which 15,980 (69%) have been closed. The sites closed either because remediation work was completed or was not required after the site was assessed. There are 5,239 active sites (22%) where contamination has been confirmed and remedial action is or may be required. A total of 2,060 sites (9%) may be contaminated but have not yet been assessed.

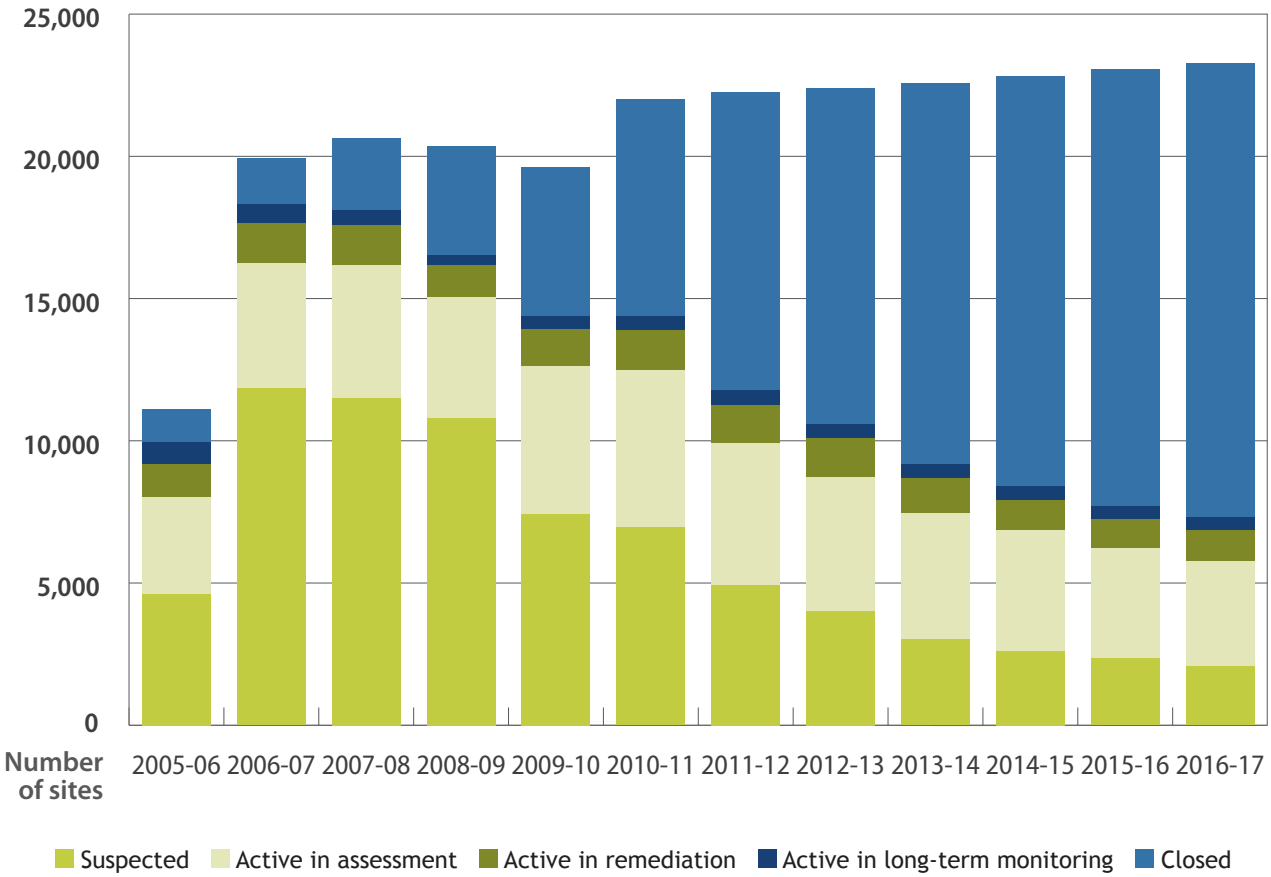
Not all sites on the FCSI are eligible for FCSAP remediation funding in Phase III. Only Class 1 sites and Class 2 sites where remediation had started in Phase I (before April 1, 2011) are eligible. The sites must also have been contaminated by activities on or before April 1,1998. FCSAP is the main source of funding for federal contaminated-site management, covering about 85% of all site expenditures reported in the FCSI since 2005–2006.

Sites move from “suspected” to “active” status once the contamination has been confirmed. Suspected sites may be closed if a desktop review or a Phase I environmental site assessment determines that historical activities would not likely have caused contamination. The number of suspected sites decreased by 12% from 2,353 to 2,060 over the 2016–2017 fiscal year. The number of active sites decreased by 2% from 5,340 to 5,239.

The status of active sites depends on the highest step completed. The steps are set out in the federal approach to managing contaminated sites. Details can be found in Appendix B. The number of active sites in the assessment stage (steps 3 to 6) decreased by 4% from 3,869 to 3,710. The number of active sites in the remediation stage (steps 7 to 9) increased by 5% from 1,030 to 1,083. The number of sites in long-term monitoring (step 10) increased by 1% from 441 sites to 446 sites.

A closed site requires no further action. A decision to close a site may be made at various points in the 10-step process. For example, a suspected site (steps 1 or 2) may be closed when a review of past activities indicates that these activities would not likely lead to contamination. Sites undergoing assessment (steps 3 to 6) are usually closed if the assessment determines that contaminants are not present or do not pose an unacceptable risk to human health or the environment. Sites are also closed after remediation, risk-management or long-term monitoring activities (steps 7 to 10) have reduced the risks to acceptable levels. The total number of closed sites in the FCSI increased by 4% in 2016–2017 from 15,381 sites to 15,980 sites. Since 2005, the total number of closed sites has increased by 1,315%, from 1,129 sites to 15,980 sites. These results, illustrated in Figure 6, demonstrate that FCSAP is having a significant positive effect on the status of sites in the FCSI.

Figure 6: Status of sites in the FCSI from 2005-2006 to 2016-2017



3 FCSAP APPROVALS AND EXPENDITURES

This section describes the three types of funding that the Federal Contaminated Sites Action Plan (FCSAP) provides. It also describes the funding-approval process, the amounts of funding allocations, as well as expenditures and variances.

3.1 TYPES OF FUNDING

FCSAP provides three types of funding: assessment, remediation and risk management, and program management. Assessment and remediation/risk-management funding are provided to allow custodians to perform work at contaminated sites. Program management funding is provided by FCSAP to assist custodians with the management of their site portfolios through activities such as procurement, contract management, expert support and reporting.

3.2 FUNDING APPROVALS

Treasury Board approves FCSAP funding on the basis of federal custodians' planned assessment and remediation activities.

On the advice of the FCSAP Secretariat and the Treasury Board of Canada Secretariat, the Federal Contaminated Sites Director General Steering Committee provides general oversight and direction to the program and approves priority sites for remediation. A committee of Assistant Deputy Ministers also provides strategic direction for FCSAP in areas such as program design and funding parameters.

Federal custodians are accountable for the FCSAP funding they receive. They must ensure that their sites meet funding-eligibility requirements. Custodians must have grounds to suspect that a site is contaminated (normally on the basis of past activities at the site) before environmental site-assessment activities can be funded. The FCSAP Secretariat has developed a tool to assist custodians in determining the priority of sites that should undergo assessment. This is because funds or resources might not be available to assess all sites. Guidance on the eligibility of project costs helps ensure that remediation or risk-management activities focus on reducing risks associated with contaminants.

3.3 FUNDING ALLOCATIONS, EXPENDITURES AND VARIANCES

FCSAP expenditures in the 2016–2017 fiscal year were $362.1 million. This is 67% of the available funding. Custodians also spent $29.7 million to meet their cost-share requirement. 99% of the unspent funding was brought forward and will be available to spend in future years.

In the 2016-2017 fiscal year, remediation and risk-management expenditures at federal contaminated sites ($318.7 million) represented 88% of total FCSAP expenditures. Assessment expenditures ($18.9 million) represented 5% of the total and program management expenditures ($24.5 million) accounted for 7% of the total. Table C.3 in Appendix C details the allocations for the three types of FCSAP funding.

Custodians did not spend all of the funds available to them in 2016–2017. This is because of contracting and project delays, such as weather conditions. Weather conditons either prevented access to the sites or limited the types of work that could be carried out on those sites. For example, at several northern sites, remediation work that did not start by the beginning of fall was halted because of the low probability to complete the work within a limited construction season as well as within the fiscal year. To complete projects in the north, tender specifications and awarding of the contract must be completed in the previous fiscal year. This is so that supplies and equipment required for remediation can be reserved on the barge schedule. Shipping by barge is the most cost-effective manner to transport materials to remote sites in the north. The tendering of several projects was delayed, which resulted in postponement of the remediation and risk-management work to the next fiscal year.

Custodians used various mechanisms to account for these unspent funds (also known as variances). These variances are detailed in Table C.4, along with the associated amounts. The overall variance between available FCSAP funding and expenditures for the 2016-2017 fiscal year was $181.7 million.

Unspent funds can be brought forward for FCSAP activities in future years through:

- government re-profiling, which must be approved by Treasury Board;
- carry-forward processes, which require internal approval from the custodian's finance group; or
- cash-management processes, which involve the custodian lending the unspent funds to another part of the organization, with the commitment that the funds be returned in the next fiscal year.

These processes allow custodians flexibility at FCSAP-eligible sites to respond to unpredictable situations, like weather. Weather can and does affect the work that can be conducted on federal contaminated sites. The FCSAP Secretariat promotes and facilitates the transfer of funds among custodians. Funding that is not brought forward or transferred between custodians is lapsed. This means that the funds will not be available for FCSAP activities in the future.

In 2016–2017, 70% of the FCSAP funding variance was re-profiled, 25% was carried forward, 3% was internally cash-managed and 1% was lapsed. Of the $181.7 million available funding not spent in 2016–2017, $179.0 million (99%) will be available in future years.

4 CASE STUDIES OF FCSAP-FUNDED ASSESSMENT AND REMEDIATION SITES

MARINE SEDIMENT SAMPLING PROGRAM AT A SMALL CRAFT HARBOUR

Location: Little St. Lawrence, Newfound and Labrador
Custodian: Fisheries and Oceans Canada (DFO)

The Little St. Lawrence Small Craft Harbour is located on the south coast of Newfoundland. The harbour is in the community of Little St. Lawrence, on the Burin Peninsula. DFO owns the property, which consists of a gravel access road, parking lot, L-shaped finger pier, community stage, timber retaining wall and an associated waterlot property. The property is in a rural setting, in an area of mixed residential and commercial land uses.

The waterlot was originally assessed in 2007 as part of a Phase I/II environmental site assessment. It is a Class 1 site. The site has elevated levels of metals and polycyclic aromatic hydrocarbons (PAHs) in the marine sediment. As part of DFO's ongoing contaminated sites program, the waterlot was reassessed in 2016–2017, following the Marine Sediment Sampling Program (MSSP) approach.

During the 2015–2016 fiscal year, DFO conducted a pilot project with one of their Class 1 sites, which followed the MSSP approach. The consultant's report was presented to DFO and two other expert support departments (ECCC and Health Canada) for review. The review was done to determine whether the sampling and assessment approach satisfied the requirements of FCSAP. The resulting MSSP scope of work was developed for DFO's Newfoundland Region for a wide variety of sites with several different management goals, including divestiture, provincial regulatory closure and federal scoring to determine priority for funding for future assessment or remediation.

The MSSP approach involves the target and grid-based collection of bottom sediment samples (0 to 10 cm in depth) from the waterlot. Professional divers collect samples for the analysis of: benzene, toluene, ethylbenzene and xylene (BTEX) and total petroleum hydrocarbons, metals, polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), total organic carbon (TOC) and grain size.

Sediment samples from three reference locations approximately 500 m from the waterlot are also targeted for the same chemical analyses. Divers take photos and video footage of bottom-substrate flora and fauna at each sample location. They also gather other lines of evidence, including bulk sediment samples for benthic community assessment and tissue samples for chemistry analysis for bioaccumulating/biomagnifying contaminants of potential concern.

The MSSP approach has been used in the Newfoundland Region for the past five years. To date, 37 sites that belong to DFO and Transport Canada have been assessed. The success rate in closing these sites in the Federal Contaminated Sites Inventory has been high.

Elevated levels of PAH were identified in marine sediment for the Little St. Lawrence Small Craft Harbour. As part of the MSSP for the property, the consultant looked at three lines of evidence. These were:

- sediment chemistry;
- equilibrium partitioning sediment benchmark toxicity; and
- field observation of bottom substrate conditions and aquatic habitat.

Given the findings, DFO decided that human-health risks associated with the concentration of contaminants in waterlot sediment samples were low. DFO concluded that additional assessment or risk management to protect human health was not needed. Although the PAH compound phenanthrene marginally exceeded the CCME probable effect level (PEL), the average concentration in sediment was well below the levels noted in the CCME guidelines. The sediment benchmark toxicity calculations showed that PAHs were unlikely to pose a negative effect to benthic invertebrates. Field observations indicated that a healthy mix of flora and benthic fauna was present throughout the waterlot. Since PAHs in the waterlot sediments posed a low risk to ecological populations and communities, additional evaluation or risk management of contaminants in the sediment was not warranted.

By using this MSSP and risk-review approach, DFO was successful in closing the Class 1 waterlot at the Little St. Lawrence Small Craft Harbour as per FCSAP requirements.

REMEDIATION OF THE MATHIAS COLOMB CREE NATION COMMUNITY OF PUKATAWAGAN

Location: Pukatawagan, Manitoba
Custodian: Indigenous and Northern Affairs Canada (INAC)

The Mathias Colomb Cree Nation of northern Manitoba has two reserves. This includes the remote community of Pukatawagan, located on the eastern shore of Pukatawagan Lake. Access to the community includes rail service, a winter road and air service. Approximately 2,200 people live in the community. They have access to a health centre, child and family services, education services and First Nations administration services.

Detecting and assessing contamination

The community used diesel generators until it was connected to the grid in 1985. From the mid-1970s to the 1980s, there was fuel contamination from former tank-farm operations at the community's school. There were no spill records associated with the site, however, community members reported a number of spills and leaks. There were several large spills (thousands of litres), smaller spills from drums used to fuel the generators and leaks within the service lines to the teachers' residences. Several inches of fuel oil also spilled onto the generator floor, which leaked into the water reservoir. This contaminated the community's drinking water.

Contamination was first detected in 1988, during an installation of domestic services. In 1991, an assessment by Indigenous and Northern Affairs Canada (INAC) and the Mathias Colomb Cree Nation identified the preliminary extent of hydrocarbon contamination and potential remediation strategies. The hydrocarbon contamination had a significant hydrocarbon plume, which included a free phase product. The contamination extended east from the school site for several hundred metres. The soil, groundwater and air were all affected by contamination. Soils in Pukatawagan are shallow clay fill with overlying moderate to high-plastic brown-gray clay units. Below the clay, there is a discontinuous layer of permeable, silty sand. The sand is over an irregular bedrock surface. The site stratigraphy allows for vertical migration of contaminants in the vapour, dissolved and free phases, as well as horizontal migration of contaminants in groundwater and along pathways such as underground utility lines. The groundwater depth recorded ranged from 0.56 m to 4.01 m below the surface. Contaminated soils were found at depths exceeding 5 m in some locations.

Remediation

Since 1995, remediation activities have been carried out in the community in stages. Work has included the removal and transfer of over 125,000 m^3 of contaminated soil to a landfarm. Accessing the contaminated soil also involved the removal of 60 buildings in the heart of the community. Buildings that were removed included the school, the Missinippe Centre (which housed a hotel and the First Nations Administration Office), the child and family services building, teachers' residences, the nursing station, the education office and several residences (including an apartment complex).

Aski Geosciences Ltd, contracted by INAC and the Mathias Colomb Cree Nation, remediated the site to CCME residential land-use standards and excavated soils to the bedrock surface. In some cases, community members swept remaining soil off the bedrock to ensure that all of the contamination was removed. After removal, backfilling with clean material took place. In 2013 and 2014, remediation of the site was completed and long-term monitoring wells were installed. Contaminated soils removed from the site were sent to a local landfarm site. Long-term monitoring of the site will continue into 2018.

In 2016–2017, during construction of a building, a small area of contamination was located adjacent to the original site. The contaminated area is slated for remediation in 2018. INAC has committed to the clean-up of contaminated soils associated with the abandoned school.

Challenges and responses

This remediation project has been challenging, partly due to the extent of the contamination. The contamination was much larger than initially estimated and the clean-up required the demolition of community buildings. It was also challenging because of the vertical and horizontal movement of contaminants throughout the site and community.

The loss of key community infrastructure – from the Band Office to residences – affected the community deeply. Relocation impacted a number of services, including youth services and the nursing station. The loss of the high school led to some children leaving the community to attend school.

The Mathias Colomb Cree Nation pursued litigation against INAC for the loss of infrastructure and health effects associated with the contamination. In 2012, INAC reached a $17-million settlement with Mathias Colomb to address the effects on the infrastructure and buildings. INAC has also replaced the demolished community buildings and residences. It hired a local construction company to complete the remedial work. The litigation, as it applies to health effects, is temporarily suspended.

INAC has spent more than $21 million to date on the remediation of the abandoned school site. This includes $7.2 million in FCSAP funding. In 2011, before the completion of the project, local employment generated through remediation activities was estimated at 21,240 person-hours. Most of the work was completed with band-owned equipment.

REMEDIATION AT THE MOISIE FORMER ROYAL CANADIAN AIR FORCE RADAR STATION (PINETREE LINE)

Location: Former Radar Station - Canadian Forces Station Moisie, Sept-Îles, Quebec
Custodian: Department of National Defence (DND)

The former Air Force base in Moisie near Sept-Îles, Quebec, was in operation from 1953 to 1988 as part of the North American Aerospace Defence Command (NORAD) and was one of the Pinetree Line radar stations. The site lies on a sandy point between the Moisie River, which is important for salmon, and the St. Lawrence Estuary.

In 2005, the Department of National Defense (DND) discovered petroleum hydrocarbon contamination in soil and groundwater from historical activities at the base. The source was fuel oil and used oil from two above-ground storage tanks and piping that fed diesel to the station's electrical and heating plant. Environmental site assessments revealed about 10,600 m^3 of contaminated soil. The soil extended between 4 to 10 metres below ground, including 4,000 m^3 below the water table.

As part of its efforts to reduce environmental and human health risks from known contaminated sites, DND set out to remediate the site within a three-year period. A performance-based procurement approach was chosen for the project. Rather than pre-selecting the remediation technology to be used, bidding contractors selected their preferred remediation technology. This allowed for the competition of several effective methods. The winning contractor was responsible for completing the design, construction and implementation of the remedial system. To ensure good performance, the contractor was paid based on how successfully the remediation work was completed.

The contract was awarded in December 2015. The winning bidder chose to excavate and remediate contaminated soil using on-site biopile technology. A biopile takes the excavated soil and accelerates biodegradation by mixing in nutrients and oxygen, and controlling heat, moisture and acidity in the soil.

Remediation of the site presented several unique challenges:

- the possibility of releasing contaminants into the Moisie River;
- the size of the excavation and the proximity of the Moisie River;
- removing 90,000 m^3 of uncontaminated soil located above the 10,600 m^3 of contaminated soil;
- the need to pump the groundwater from the excavation zone to access the contaminated soil below the water table and manage the pumped groundwater.

Most of these challenges have already been met. The excavation of contaminated soil took place during the summer and fall of 2016. The soil has been in the biopile for treatment since September 2016. Monitoring of the Moisie River during excavation indicated that the remediation work did not impact the river in any way. Work continues at the site. The completion of biopile soil treatment is expected in 2018. Post-treatment monitoring will be implemented once remediation is completed.

The success of this project is the result of consultations and collaboration with the Innu Uashat Mak Maliotenam First Nation community, Defence Construction Canada, Environment and Climate Change Canada, le Ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques, the Department of Fisheries and Oceans, the city of Sept-Îles and SNC Lavalin.

INDIGENOUS ENGAGEMENT AT THE FARO MINE REMEDIATION PROJECT

Location: Faro, Yukon
Custodian: Indigenous and Northern Affairs Canada (INAC)

Once the largest open-pit lead-zinc mine in the world, Faro Mine is one of the most complex remediation projects in Canada. Thirty years of mining left behind 70 million tonnes of tailings and 320 million tonnes of waste rock, which have the potential to leach heavy metals and acid into the surrounding land and water. When the last owner declared bankruptcy in 1998, the Government of Canada stepped in to fund the work required to keep the site safe.

The project is located on the asserted traditional territory of the Kaska Nation and upstream from the Selkirk First Nation. In support of Canada's reconciliation agenda, a key aspect of the Faro Mine Remediation Project has been ongoing engagement with these groups. Important steps have been taken to build relationships and revise the project governance structure to support the project's partnership approach to the strategic management and leadership of the project.

INAC has undertaken considerable effort to build relationships with the Kaska Nation and increase First Nation involvement in the project. In June 2016, the Kaska Faro Secretariat was established. This is the Kaska's preferred method for participating in the project. The Secretariat represents the interests of Ross River Dena Council, Liard First Nation and Kaska Dena Council. The Secretariat is a vehicle for the Kaska to build capacity and participate fully as partners in all aspects of the project, such as the oversight committee, topic-specific working groups and day-to-day activities. The Secretariat also coordinates the Kaska's participation in the planning process.

Another important role of the Kaska Faro Secretariat is to facilitate community consultation sessions. During the summer of 2017, it facilitated community consultation in Ross River, Watson Lake, the Town of Faro, Pelly Crossing, Carmacks and Whitehorse. During these sessions, the project team solicits input, feedback and listens to concerns on remediation plans for Faro Mine. The next round of consultations is scheduled to take place in early 2018. The consultations will review how community input is reflected in the remediation plan. The consultations will also address concerns about the remediation plan and the environmental assessment project proposal.

INDIGENOUS ENGAGEMENT AT THE GIANT MINE REMEDIATION PROJECT

Location: Yellowknife, Northwest Territories
Custodian: Indigenous and Northern Affairs Canada (INAC)

Giant Mine was once a major economic driver for the Northwest Territories. Operating between 1948 and 2004, the mine produced over 7.5 million ounces of gold from arsenopyrite ore formations on the north shore of Yellowknife Bay. Processing gold involves roasting the ore, which creates a by-product of highly toxic arsenic trioxide dust. Control of the property, as well as the main environmental liabilities, was transferred to INAC after the mine's closure.

The Giant Mine site lies within the traditional territory of the Akaitcho Territory Dene First Nation. It is within the extended Monfwi (Môwhì Gogha Dè Nîîtàèè) boundary, as defined in the Tlicho Land Claim and Self Government Agreement. The site also lies on the boundary of the Interim Measures Agreement Area of the Northwest Territories Métis Nation. As custodian of the Giant Mine Remediation Project, INAC recognizes the importance of providing opportunities for all stakeholders to engage meaningfully on key issues. The project team appreciates the importance of showing how stakeholder input has been gathered and incorporated into decision-making.

Since the responsible Ministers' decision on the environmental assessment in 2014, the engagement process has matured and become more streamlined. Key activities, such as the engagement on surface design, helped establish momentum and trust with some stakeholder groups, particularly the Yellowknives Dene First Nation and the North Slave Métis Alliance. Through ongoing consultation activities, the project team has gained important insight that has allowed the planning and execution of engagement sessions and public events to become easier and more effective.

Over the 2016–2017 fiscal year, the Giant Mine Remediation Project team participated in 50 engagement activities or events. These included sessions on the surface design, the location of the outfall pipe for the water treatment plant, the human-health and ecological risk assessment, and the procurement processes for the main construction manager. The project team continued to provide regular updates through its monthly newsletter, its website, media briefings and school presentations.

As the project team continues to prepare for the water licence process, which is required to support the implementation of the final remediation plan, upcoming engagement will likely include activities to gain input and feedback on the Giant Mine closure and reclamation plan for the site, building on the insight they gained through discussions about surface design. The project team recognizes the importance of incorporating traditional knowledge into the planning for final site remediation. It will continue to work with the Yellowknives Dene First Nation and the North Slave Métis Alliance. This will ensure that the gathering and use of traditional knowledge continues to improve.

5 UPDATES ON PRIORITY PROJECTS

FARO MINE REMEDIATION PROJECT

Location: Faro, Yukon
Custodian: Indigenous and Northern Affairs Canada (INAC)

The Faro Mine complex is located in south-central Yukon, 22 km north of the town of Faro and almost 350 km northeast of Whitehorse. From Whitehorse, the mine is a 30-minute charter flight or a four-hour drive away. The mine complex is located in the traditional territory of the Kaska Nation and is upstream from the traditional territory of the Selkirk First Nation.

History

A former open-pit lead and zinc mine, Faro Mine operated for 30 years until its last operator, Anvil Range Mining Corporation, went into receivership in 1998. In 2003, the authority to manage public lands and resources, including abandoned mine sites was transferred to the Government of Yukon, under the Yukon Northern Affairs Organization Devolution Transfer Agreement and the *Yukon Act (2002)*. The Government of Canada maintains liability and responsibility for funding the remediation of the Faro Mine, while the Government of Yukon administers and controls the land.

Contamination

Faro Mine is one of the largest and most contaminated sites in Canada. The site consists of waste-rock dumps, ore-processing facilities, water-treatment plants, tailings-disposal facilities, offices, and other buildings. There are approximately 70 million tonnes of tailings and 320 million tonnes of waste rock across the mine complex.

These materials have the potential for both metal release and acid rock drainage, which occurs when sulphide-containing waste rock and tailings are exposed to air and water. This will become more problematic as the acid concentrations reach saturation and begin releasing in high concentrations to the environment. If unchecked, this would make the waters downstream in the Pelly River watershed highly toxic to fish. Orange-red precipitate from sulphide oxidation would coat stream beds, making them inhospitable to aquatic organisms and fish spawning. The tailings are contained behind three impoundments, but these are physically unstable. If the main tailings impoundment fails, the damage downstream could be irreparable.

Maintenance and closure

INAC continues to manage the necessary care and maintenance activities at Faro Mine to protect human health, public safety and the environment. These activities include water pumping and treatment, stream diversions, building maintenance, continuous inspection and monitoring of dams, and site security.

In 2008, INAC, the Government of Yukon and First Nations developed the Faro Mine Preferred Closure Plan. The plan involves stabilizing and capping the waste rock and tailings, and instituting a permanent water-management and treatment system.

Notable achievements in the 2016–2017 fiscal year were the optimization of the interim water-treatment system, which permitted the reduction of the Faro pit water level by more than two metres. Another achievement was the establishment of the Kaska Faro Secretariat, through which the Kaska Nation can build capacity and participate fully as a project partner. Engineering designs for the most urgent works are on schedule with construction planned to start in 2018. Development of the conceptual full closure plan is well underway in preparation for the project proposal to be submitted for environmental assessment in 2019.

GIANT MINE REMEDIATION PROJECT

Location: Yellowknife, Northwest Territories
Custodian: Indigenous and Northern Affairs Canada (INAC)

The Giant Mine site covers approximately 900 hectares within the city limits of Yellowknife. The site lies along the western shore of Yellowknife Bay, an arm of Great Slave Lake. The site is a former gold mine that operated almost continuously from 1948 until its closure in July 1999. Operating the mine led to significant contamination including 237,000 tonnes of arsenic trioxide dust stored in 15 underground chambers. Moreover, 16 million tonnes of arsenic-contaminated tailings are stored in surface tailings ponds. The underground mine water, industrial buildings and surface soil are all contaminated with arsenic. As a creek passes through the mine site, above the arsenic chambers and adjacent to mine openings, there is a potential for the mine to flood.

Giant Mine was operated by private interests until its last operator, Royal Oak Mines Inc., entered into receivership in April 1999. Under the provisions of the *Bankruptcy and Insolvency Act (1985)*, Ontario Superior Courts ordered transfer of the property, including all environmental liability, from the interim receiver to INAC, acting on behalf of the federal Crown.

Site stabilization and risk management

Since 2006, INAC has performed or contracted a large amount of work on the site:

- Advanced remediation activities have been completed to mitigate high risks at the site. Completed activities include the deconstruction of small buildings, sealing openings to the mine, testing and evaluation of the arsenic chamber freezing process, and asbestos removal from existing infrastructure.
- Remediation work has also been initiated under the Site Stabilization Plan. The Site Stabilization Plan was developed to address the largest risks to protect human health and safety, as well as the environment. The plan required several project elements to proceed as fast as possible. Such elements included the deconstruction of the roaster complex (completed December 2014), stabilization of the underground, which began in 2013 and will continue in 2017–2018. Removal of other high risk infrastructure took place including deconstruction of the C-shaft headframe in 2015 and deconstruction of the A-shaft headframe and hoist room, the assay lab and the curling club in 2016.
- Activities related to ongoing care and maintenance include site security, flood risk mitigation, the securement or removal of infrastructure and infrastructure renewal such as refurbishment of the effluent treatment plant.
- Work on site investigations, assessment and monitoring has included water quality testing, geotechnical evaluation of sediments, air monitoring, mine water sampling and the evaluation of tailings cover performance.

- Starting in 2007, progress was also made on the environmental assessment process. Major milestones include submission of the developer's assessment report, information request responses and participation in the public hearing.

These activities contributed to a final decision on the Report of Environmental Assessment by Responsible Ministers in August 2014, to adopt the recommendation of the Review Board and its 26 measures, including revised wording to eight measures.

Carrying out the measures

Studies to be conducted over the next two to three years will allow the project team to develop accurate cost estimates. The team will also determine the scope, schedule, cost and risk implications of the measures. Some of the measures are interdependent. The final routing of Baker Creek (Measure 11), for example, cannot be decided until final site-specific water-quality objectives (Measures 12 and 13) are determined. Consequently, their integration into the project plan and the collection of site specific data will continue for the rest of the definition phase of the overall Giant Mine Remediation Project. This will help inform the remediation strategy.

The investments required to implement measures such as the human health and ecological risk assessments are now being made, as is the determination for the final routing of Baker Creek. Work on these is expected to continue over multiple field seasons.

The environmental assessment measures required the negotiation of a legally binding environmental agreement. The agreement is to establish an independent oversight body for the Giant Mine Remediation Project. It was signed in June 2015. Sign-off led to the establishment of the Giant Mine Oversight Board in October 2015, per the stipulations of Measure 3.

Activities in 2016–2017

The past year's activities largely focused on work to support the development of the final remediation plan. Activities that took place include:

- The project relies heavily on a strong engagement program. Fifty engagement events were held in 2016–2017, mostly through public forums and working groups. The events addressed both the overall project and some specific activities. For example, engagement on surface design served to analyze options for the surface remediation of the site; a report was finalized in the 4th quarter. Engagement in this year will also support the water-licensing phase of the project.
- In 2016, the project team established an advisory committee for the Health Effects Monitoring Program (Measure 9). The committee is made up of health experts, territorial and federal government officials, and community members. The program, which will include biological sampling, will begin mid-2017. The human health and ecological risk assessment (Measure 10) was also initiated in 2016. It included community engagement, the sampling of country foods and a dietary survey of the Yellowknives Dene First Nation and North Slave Métis Alliance. A draft report will be completed in 2017.
- The routing of Baker Creek was a key component in the engagement on surface design and option evaluation (Measure 11). Ongoing efforts in 2016 included additional engagement with federal expert support to determine the best options for on-site alignment of the creek. A draft report that was completed and shared with stakeholders. Predictive modelling and development of site-specific water quality objectives (Measure 12), began in 2015–2016. It continued in 2016–2017 to support the evaluation of expected water quality in Baker Creek under various realignment options.

- A freeze design report (Measure 18) was finalized and a plain-language version for community engagement was initiated. The report concluded that the dry method of freezing worked just as well as the wet method of freezing. Reaching the target freeze temperature ensures that the arsenic trioxide remains encapsulated in frozen rock. This prevents contact with water flowing through the mine. If future technologies provide a better option for managing the arsenic trioxide dust, a dry freeze is easier to reverse than a wet one.
- Air quality monitoring, both onsite and within the community of Yellowknife, continued throughout the fiscal year. The project added sampling equipment to the fenceline program. This measures the dust around the perimeter of the site. It is necessary to ensure that dust and contaminants are not being released by the Project. The team installed a new station in the Niven Lake area of Yellowknife. It is to become operational in the summer of 2017. The temporary monitoring station in the community of Ndilo was also replaced with a more efficient purpose-built structure. The location was chosen in collaboration with the Yellowknives Dene First Nation.
- Dust-suppression activities, in particular at the tailings ponds, remained a priority. INAC researched and procured a new product that is expected to perform better in cold conditions and require fewer applications.
- As part of INAC's commitment to promote socio-economic benefits and support reconciliation efforts with Indigenous Peoples in Canada, the project team completed a socio-economic strategy for the Project in 2016–2017. The strategy outlines the project's approach. The approach provides access to employment and procurement opportunities, supports capacity and skills development, and anticipates, monitors, and mitigates impacts. The project team expects engagement to continue as it implements the strategy over the coming years.

UNITED KENO HILL MINE REMEDIATION PROJECT

Location: Central Yukon
Custodian: Indigenous and Northern Affairs Canada (INAC)

The United Keno Hill Mines (UKHM) properties cover about 15,000 hectares near the former Elsa town site and the village of Keno City in central Yukon, approximately 350 kilometres north of Whitehorse. An all-weather gravel highway connects the site to the town of Mayo (60 kilometres to the south) and Keno City. The site is within the traditional territory of the First Nation of Nacho Nyak Dun.

History

Over a century, the property operated under various ownership structures. From 1946 to 1989, 5,340,000 tons of ore were mined and milled, producing mainly silver, as well as lead and zinc. Production ceased in 1989. Attempts to re-open the mine in the 1990s were unsuccessful. On February 18, 2000, UKHM Limited filed for creditor protection. Several creditors tried to sell the assets but were unsuccessful due to a lack of financing by buyers and the lack of a comprehensive plan to address the environmental issues on the site.

Environmental concerns associated with the site include:

- 19 open pits;
- 65 underground workings, some of which are discharging contaminated water into nearby habitat and water courses;
- 47 waste-rock dumps (estimated at over 5.5 million tonnes) leaching metals into surrounding water courses;
- tailings (estimated at over 4 million tonnes) with elevated concentrations of metals;
- tailings dams, which are settling and were constructed without spillways; and
- approximately 216 abandoned buildings, some containing asbestos and other contaminants.

Ownership and management

In June 2003, the property was declared abandoned under the *Waters Act (Yukon)* and *Quartz Mining Act (Yukon)*. As a result, it was classified in April 2003 as a Type II Site under the Yukon Northern Affairs Program - Devolution Transfer Agreement, which sets out a cooperative (federal and territorial) approach to managing the site. The Agreement identifies the Government of Canada as financially responsible for historic environmental liabilities, while the Government of Yukon is responsible for the ongoing management.

On April 6, 2004, the Supreme Court of the Yukon Territory appointed Pricewaterhouse Coopers Inc. as interim receiver and receiver-manager of the property. It had a mandate to sell the assets and develop a long-term solution to the environmental issues at the mine site. Pricewaterhouse Coopers advertised the property for sale in January 2005. An evaluation process involving Pricewaterhouse Coopers and the federal and territorial governments concluded in July 2005 with the selection of Alexco Resource Corporation as the preferred purchaser.

In December 2007, the Government of Yukon determined that its role as the government project manager and contracting authority was not appropriate. As the site was no longer abandoned, the Government of Yukon requested that INAC assume the role of government project manager and contracting authority. The overall project is now managed through a project team. The team consists of Elsa Reclamation and Development Corporation (ERDC) and INAC, with the Government of Yukon and the First Nation of Nacho Nyak Dun taking on secondary roles.

Maintenance and closure

To protect human health, public safety and the environment, the project team has undertaken basic care and maintenance activities. These include compliance with the water license, water management (pumping and treatment), surface and groundwater monitoring, building maintenance, continuous inspection and monitoring of dams, and site security.

To prepare for the eventual closure of the site, INAC and ERDC have completed the comprehensive environmental site assessment of the property. They also developed a report that outlines remedial options to address the human-health and environmental risks. Consultations with the Government of Yukon and First Nation of Nacho Nyak Dun selected preferred closure options, which the governments endorsed in 2014–2015. These preferred closure options involve stabilizing and capping mine openings, waste rock and tailings, and instituting a permanent water management and treatment system.

Activities in 2016–2017 largely focused on compliance with the water license and work supporting the development of a project proposal for environmental assessment. Through a collaborative review process with input from INAC, the Government of Yukon and the First Nation of Nacho Nyak Dun, ERDC prepared the reclamation plan with costing to an indicative level. Once this plan is accepted in 2017–2018, it will form the basis of environmental assessment.

GOOSE BAY REMEDIATION PROJECT

Location: 5 Wing Goose Bay, Happy Valley-Goose Bay, Newfoundland and Labrador
Custodian: Department of National Defence (DND)

DND is committed to environmental sustainability and minimizing the impact of military operations on the environment. In 2009, the department launched the 5 Wing Goose Bay Remediation Project to reduce potential risks to human health and the environment posed by contamination at the base. The majority of the contamination was from past handling and storage of various substances. Contaminants identified at the base included:

- petroleum hydrocarbons;
- polycyclic aromatic hydrocarbons;
- volatile organic compounds;
- metals;
- pesticides; and
- polychlorinated biphenyls.

Lessons learned from previous remediation projects within DND were applied to the approach for the Goose Bay Remediation Project. DND considered all contaminated areas collectively to understand the overall environmental condition of the site. Through this analysis, ten areas were identified for remediation and risk management. Work is underway at eight locations as of 2016–2017.

A number of technologies have been used as part of the project, depending on the type of contaminants and site characteristics. Fuel recovery techniques, such as dual-phase and multi-phase vapour extraction, were used to remove free-phase fuel from the subsurface. Land farming, chemical oxidation and soil washing remediation techniques have also been used.

Remediation strategies are being developed for the remaining two areas. DND is getting close to completing the clean-up at several sites.

ESQUIMALT HARBOUR REMEDIATION PROJECT

Location: Victoria, British Columbia
Custodian: Department of National Defence (DND)

Launched in 2014, the Esquimalt Harbour Remediation Project (EHRP) is addressing historical contamination that has accumulated in the harbour seabed after almost 200 years of commercial, military and industrial use. The EHRP is primarily funded by the Federal Contaminated Sites Action Plan (FCSAP) and will reduce ecological health risks associated with contaminated sediments in the harbour.

There are over 25 known substances in the harbour seabed, all of which exceed the Canadian Environmental Quality Guidelines for sediments. The types of contaminants found in Esquimalt Harbour include:

- metals (such as arsenic, cadmium, lead and mercury);
- polycyclic aromatic hydrocarbons;
- organometals (such as tributyl tin); and
- dioxins, furans and polychlorinated biphenyls.

The remediation work will reduce the exposure of marine life to contaminated sediments and will provide a healthier harbour for marine ecosystems. It will also minimize the potential for recontamination and provide economic development opportunities for surrounding communities. This work is being coordinated with major construction projects at Canadian Forces Base Esquimalt to provide modern, green and functional dockyard infrastructure to support the long-term operational success of the Royal Canadian Navy.

Specifically, the Esquimalt Harbour Remediation Project is cleaning-up several prioritized areas in Esquimalt Harbour, including: A Jetty, B Jetty, C Jetty, ML Floats, Y Jetty and Lang Cove. In addition to the EHRP project, clean-up is also progressing for four other areas of Esquimalt Harbour including: D Jetty, F/G Jetty, Ashe Head and Plumper Bay (See Figure 1). A harbour-wide risk management plan is also being developed to address any remaining contamination after the remediation of prioritized areas is completed.

During the 2016–2017 fiscal year, the project passed several milestones:

- DND began the remediation around the existing A and B Jetties in Esquimalt Harbour removing 12,000 m^3 of contaminated sediments near A Jetty (see Figure 2)
- DND awarded the contract for the remediation around B Jetty in January 2017. The B Jetty dredging is planned to start midway through 2017–2018 after the demolition of the jetty. The contaminated sediments underneath and behind the existing A Jetty will be removed after 2022.
- As part of the remediation around D Jetty and F/G Jetty, DND removed 21,400 m^3 of contaminated sediment.
- The planning and remediation design work for remediation of C Jetty, Y Jetty and Lang Cove, as well as the harbour-wide risk management plan was advanced significantly.
- DND updated the human health and ecological risk assessments and completed 60% of the design for Lang Cove, Plumper Bay and Ashe Head.
- DND also held information sessions on the project with the public and nearby First Nations communities.

Figure 1: Areas planned for Sediment Remediation in Esquimalt Harbour.

Figure 2: EHRP Implementation Phase 1 - Dredging at Open Water A-Jetty

APPENDIX A

Program Administration

PROGRAM ADMINISTRATION

Secretariat and Expert Support Funding

In the 2016–2017 fiscal year, $13.3 million was spent on the Federal Contaminated Sites Action Plan (FCSAP) Secretariat and expert support services. The breakdown of expenditures is shown in Table A.1.

Table A.1: Summary of FCSAP program management expenditures for Secretariat and expert support services (2016–2017)

Department	Available FCSAP funding ($)	FCSAP expenditures ($)	Variance ($)*
Fisheries and Oceans Canada (expert support)	3,153,123	2,988,554	164,569
Environment and Climate Change Canada (Secretariat)	*3,356,971*	*2,275,046*	*1,081,925*
Environment and Climate Change Canada (expert support)	*3,959,984*	*3,583,343*	*376,641*
Total Environment and Climate Change Canada (Secretariat/expert support)	7,316,955	5,858,389	1,458,566
Health Canada (expert support)	3,976,703	3,290,022	686,681
Public Services and Procurement Canada (expert support)	650,000	650,061	-61
Treasury Board of Canada Secretariat (Secretariat)	535,000	517,349	17,651
Total expenditures	**15,631,781**	**13,304,375**	**2,327,406**

*Variance = available FCSAP funding - FCSAP expenditures

Key Activities

Federal Contaminated Sites Action Plan Secretariat

In its role as Secretariat of the FCSAP program, Environment and Climate Change Canada (ECCC), with support from the Treasury Board of Canada Secretariat, continued to provide overall program oversight, support and administration.

In the 2016–2017 fiscal year, the FCSAP Secretariat provided support to program partners during the implementation of FCSAP Phase III and the Budget 2016 Federal Infrastructure Initiative. Many other activities also took place including the development of a long-term strategy for the management of federal contaminated sites post-2020, the program's risk profile and a site-closure reporting template.

In addition, the Secretariat also developed and delivered training on cost-estimation best practices, the Decision Making Framework, and monitored natural attenuation and monitored natural recovery at contaminated sites. The Secretariat also co-led a working group to develop guidance on perfluoroalkyl substances such as perfluorooctane sulfonate and perfluorooctanoic acid. These chemicals are a group of emerging contaminants associated with some federal contaminated sites. The working group consists of expert support departments and custodians.

Other FCSAP Secretariat activities include:

- *Program governance* – The FCSAP Secretariat organized and co-chaired meetings of both the Contaminated Sites Management Working Group and the Federal Contaminated Sites Director General Steering Committee. The steering committee provides operational and strategic support to the program.
- The FCSAP Secretariat reviewed site submissions for eligibility and maintained the priority list of eligible sites. It also supported the Treasury Board of Canada Secretariat in the development of liability estimates for unassessed sites.
- *Improvements to data management* – The FCSAP Secretariat continued to upgrade the Interdepartmental Data Exchange Application database to improve tracking of project submissions (including Federal Infrastructure Initiative projects) and to better facilitate reviews by expert support departments, and continued improvement of the performance measurement tracking system.
- *Performance monitoring and reporting* – The FCSAP Secretariat published the 2014–2015 annual report and prepared a draft version of the 2015–2016 annual report. The reports present the results of program activities and custodian expenditures against the indicators and targets identified in the FCSAP performance measurement strategy. The FCSAP Secretariat also reviewed and updated the indicators and targets under the FCSAP Phase III performance measurement framework with input from program partners.

Treasury Board of Canada Secretariat

Throughout 2016–2017, the Treasury Board of Canada Secretariat (TBS) supported the activities of the FCSAP Secretariat by providing strategic advice and analysis on many program Issues related to implementation such as:

- *Program governance* – TBS co-chaired, with ECCC, the Federal Contaminated Sites Director General Steering Committee. It also participated in the Contaminated Sites Management Working Group and other sub-committees, as required. TBS supported ECCC in the preliminary scope and analysis of a long-term strategy for post-2020 management of federal contaminated sites.
- *Improvements to data management* – TBS maintained and enhanced the Federal Contaminated Sites Inventory.
- *Performance monitoring and reporting* – TBS supported the activities of the FCSAP Secretariat through participation and oversight on key program initiatives such as annual reporting, long-term planning, future funding analysis and the launch of the FCSAP program evaluation.
- *Community building* – TBS coordinated planning and supported delivery of the Real Property Institute of Canada (RPIC) Federal Contaminated Sites National Workshop, held in Montréal, Quebec, April 25–27, 2016.

Expert Support Departments

In 2016–2017, expert support departments focused on developing guidance documents and delivering training. They also provided advice, conducted reviews of contaminated-site management projects, and promoted innovative and sustainable remediation technologies.

Details on each of the departments' activities include:

- Fisheries and Oceans Canada (DFO), ECCC and Health Canada reviewed site classifications to ensure that sites were eligible for FCSAP remediation or risk-management funding. These three expert support departments also conducted site visits and reviewed reports to provide advice and guidance to custodians. This advice and guidance focused on site assessments, risk assessments, site classifications, regulations, remedial plans, risk management plans, sampling and long-term monitoring plans, and technical requirements.

- DFO provided scientific and technical advice to custodians on the management of their contaminated sites in relation to risks and impacts to fish and fish habitat. DFO conducted 11 site classification reviews to confirm eligibility for FCSAP funding. It also conducted 103 technical document reviews. The reviews were in support of site assessment and remediation and risk management to ensure that the potential effects on fish and fish habitat were appropriately considered and to promote compliance with regulations. DFO developed guidance material and provided training on the management of FCSAP sites to custodial departments, in the following areas:

  a) drafted the *Federal Contaminated Sites Action Plan Guidance for Assessing and Managing Aquatic Contaminated Sites in Working Harbours*;

  b) completed minor updates to version 3.2 of the Aquatic Sites Classification System;

  c) finalized updates to the *Framework for Addressing and Managing Aquatic Contaminated Sites*;

  d) assisted with updating sediment-remediation technology factsheets for the Guidance and Orientation for the Selection of Technologies (GOST) tool;

  e) delivered a professional development course on monitored natural attenuation and monitored natural recovery (MNA-MNR) and long-term monitoring (LTM) at the 2016 Federal Contaminated Sites National Workshop;

  f) developed a combined MNA-MNR, LTM and Light Non-Aqueous Phase Liquid (LNAPL) training course and delivered classroom training sessions in five locations (Halifax, Yellowknife, Quebec City, Toronto and Ottawa); and

  g) supported delivery of training on aquatic assessment and monitoring of contaminated sites to Indigenous communities in the Northwest Territories.

- At the regional level, ECCC acted as the one-window for custodial and expert departments, chaired the Interdepartmental Regional Working Groups (IRWGs), and coordinated expert support services and training for custodians.
- ECCC provided technical advice to custodial departments on the management of their contaminated sites. ECCC reviewed 11 site classification scores to confirm eligibility for funding and reviewed 135 technical documents. This was done to assist custodians during assessment and remediation projects and to promote compliance with regulations. The Department developed guidance material and provided training on the management of FCSAP sites to custodial organizations in the following areas:

  a) drafted ecological risk-assessment guidance on amphibians;
  b) established toxicological reference values;
  c) developed guidance on managing light non-aqueous phase liquids;
  d) implementation of a Canada-wide standard on petroleum hydrocarbons;
  e) finalized guidance on monitored natural attenuation;
  f) developed several FCSAP advisory bulletins to provide nationally consistent advice to custodians; and
  g) delivered training sessions:
     - “Long Term Monitoring and Monitored Natural Attenuation and Recovery” (5 sessions);
     - “Ecological Risk Assessment (ERA) Problem Formulation” (2 sessions);
     - “The When, Why and How of an ERA” (2 sessions);
     - “Real-Time Assessment Technologies” (1 session);
     - “Sampling and Characterization Quality Assurance/Quality Control” (1 session);
     - “CCME Soil Quality Guidelines” (1 session); and
     - “ERA Module 5 on Amphibians” (sessions in Edmonton, Gatineau, Halifax, Montreal, Quebec City, Toronto and Yellowknife).

- Health Canada provided technical advice to custodial departments on the management of their contaminated sites. In particular, Health Canada worked closely with other expert support departments and various custodians on human health-related concerns from potential exposure to perfluoroalkyl substances. Other accomplishments included the review of 11 site-classification scores from federal custodians to confirm eligibility for funding and the review of approximately 138 technical documents to assist custodians during assessment and remediation projects. Health Canada also completed updates to one final and three draft technical guidance documents. The Department delivered the following training:

  a) a “Supplemental Guidance on Human Health Risk Assessment of Contaminated Sediments: Direct Contact Pathway” webinar;

  b) two “Strategies for Interpreting and Communicating of Risk Assessment Results” in-class courses;

  c) one “Problem Formulation” in-class course; and

  d) two “Human Health 101 - Basic Human Health Risk Assessment” courses.

- Public Services and Procurement Canada (PSPC) developed solutions to procurement issues and provided training and guidance on contaminated site management tools. PSPC also liaised with industry and distributed information on innovative and sustainable/green approaches and technologies. The Department also forecast site requirements and procurement opportunities to support links to other federal priorities. PSPC delivered several training sessions to custodial organizations and the industry on the FCSAP Project Management Tools (sessions in Montreal, Halifax, Toronto, Thunder Bay, Winnipeg, Calgary and Vancouver), on FCSAP Project Managers Toolkit and Contaminated Site Procurement Approaches for Federal Project Managers as part of the RPIC Federal Contaminated Sites National Workshop, and on the Sustainable Development (SD) Tool. Lastly, PSPC participated to the FCSAP Stakeholder Roundtable Discussions as a Subject Matter Expert.

APPENDIX B

Federal Approach to Managing Contaminated Sites

FEDERAL APPROACH TO MANAGING CONTAMINATED SITES

A contaminated site is an area in which hazardous substances occur at concentrations above normally occurring background levels and pose, or are likely to pose, an immediate or long-term hazard to human health or the environment. Determining the risk posed by the presence of these substances includes determining potential exposure pathways and identifying potential receptors. Contamination can come from sources such as storage-tank leaks, long-term use of industrial facilities or accidents – such as spills of polychlorinated biphenyls.

To ensure that custodians take a common approach to managing federal contaminated sites, the Federal Contaminated Sites Action Plan (FCSAP) follows a 10-step process set out in *A Federal Approach to Contaminated Sites*[3].

Step 1: *Identify suspected sites* – Identify potentially contaminated sites on the basis of past or current activities on or near the site.

Step 2: *Historical review* – Assemble and review all historical information pertaining to the site.

Step 3: *Initial testing program* – Provide a preliminary characterization of contamination and site conditions.

Step 4: *Classify contaminated site, using the Canadian Council of Ministers of the Environment (CCME) National Classification System* – Prioritize the site for future investigations and remediation or risk-management actions.

Step 5: *Detailed testing program* – Focus on specific areas of concern identified in step 3 and provide further in-depth investigations and analysis.

Step 6: *Reclassify the site, using the CCME National Classification System* – Update the ranking in response to the results of the detailed investigations.

Step 7: *Develop remediation and risk management strategy* – Develop a site-specific plan to address contamination issues.

Step 8: *Implement remediation and risk management strategy* – Implement the site-specific plan that addresses contamination issues.

Step 9: *Confirmatory sampling and final reporting* – Verify and document the success of the remediation and risk-management strategy.

Step 10: *Long-term monitoring* – If required, conduct long-term monitoring to ensure that remediation and long-term risk-management goals are achieved.

These steps indicate the stage of progress at a site. Step 8 tends to require significantly more time, energy and funding than any other step.

Process Walkthrough

Once a site is suspected of being contaminated (step 1), custodians may seek FCSAP funding to conduct a historical review through a Phase I environmental site assessment (step 2). The purpose of this work is to determine whether contamination is likely to exist on the property.

The next step consists of an initial testing program (step 3) to confirm the presence of contamination at the site. If contamination is present above levels specified in policies or guidelines or is above background levels and may cause risk, additional detailed testing (step 5) must occur to determine the extent of contamination. The results from assessments help to identify risks to human health and the environment. The results also determine what remediation or risk-management action is necessary.

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[3] A Federal Approach to Contaminated Sites (Contaminated Sites Management Working Group, 1999), www.federalcontaminatedsites.gc.ca/default.asp?lang=en&n=B4AC7C22-1.

To determine the priority of a site for management action, federal sites are classified according to the nature, severity and immediacy of the risk posed to human health and the environment. The CCME National Classification System for Contaminated Sites or the FCSAP Aquatic Sites Classification System is used, depending on whether the contaminated site is on land or in water (steps 4 and 6). To ensure that available funding is directed to the highest-risk sites, FCSAP funds the remediation or risk management of Class 1 (high priority for action) sites and Class 2 (medium priority for action) sites. Class 2 sites must have spent FCSAP remediation expenditures before April 1, 2011. Class 3 (low priority for action) sites are not eligible for FCSAP remediation funding. They are, however, eligible for Federal Infrastructure Initiative funding.

Remediation is the act of removing, reducing or destroying contaminants and pollution from the environment (e.g., from soil, groundwater or surface water such as lakes and rivers). Risk management is a set of actions aimed at controlling and managing contaminants. Both remediation and risk management aim to protect the environment and human health. They do this by limiting exposure to hazardous substances, leading to improved quality of life, increased wildlife habitat and economic benefits.

Once assessment activities have confirmed that contamination levels pose a risk to human health or the environment, the custodian responsible for the site oversees the development of the remediation plan (step 7) and updates the federal environmental liability for the site with available information. The custodian then works closely with consultants, contractors and tradespeople to implement the plan (step 8). Usually, the final stage of the project is to confirm that the remediation or risk-management objectives have been reached (step 9). The site may then be closed. The closure of a site indicates that no further action is required and that the federal financial liability has been reduced to zero. For some sites, the most appropriate course of action is to risk-manage contamination. This is done by containing it on a site and reducing exposure to people, plants and animals. Long-term monitoring (step 10) may be necessary to ensure that risks remain at acceptable levels.

APPENDIX C

Data Tables

DATA TABLES

Table C.1: Available assessment funding and expenditures, by custodian (2016-2017)

Custodian	Number of sites with activity	Available FCSAP funding ($)	FCSAP Phase III assessment expenditures ($)	FCSAP infrastructure assessment expenditures ($)	Custodian expenditures (cost share) ($)	Total expenditures ($)
AAFC	0	0	0	0	0	0
CSC	1	155,951	15,304	0	3,826	19,130
DFO	28	2,659,000	1,369,239	0	342,310	1,711,549
DND	129	7,690,773	1,232,948	6,402,618	308,237	7,943,803
ECCC	2	177,000	118,000	59,000	80,829	257,829
INAC-LED	72	3,397,900	1,606,949	854,925	669,114	3,130,988
INAC-NAO	0	0	0	0	0	0
JCCBI	0	0	0	0	0	0
NCC	15	237,018	215,384	0	53,846	269,230
NRC	2	783,000	0	783,000	436,424	1,219,424
NRCan	0	0	0	0	0	0
PCA	20	1,320,637	594,506	741,303	155,010	1,490,819
PSPC	21	3,085,000	0	2,814,335	0	2,814,335
TC	36	2,884,927	388,982	1,676,927	97,246	2,163,155
VIA Rail	0	0	0	0	0	0
Total	**326**	**22,391,206**	**5,541,312**	**13,332,108**	**2,146,842**	**21,020,262**

Table C.2: Available remediation funding and expenditures, by custodian (2016-2017)

Custodian	Number of sites with activity	Available FCSAP funding ($)	FCSAP Phase III remediation expenditures ($)	FCSAP infrastructure remediation expenditures ($)	Custodian expenditures (cost share) ($)	Total expenditures ($)
AAFC	40	2,028,000	124,541	1,727,111	21,978	1,873,630
CSC	18	1,613,351	277,616	417,397	48,991	744,005
DFO	166	12,576,275	2,139,090	4,494,371	377,486	7,010,947
DND	88	104,312,895	58,419,622	0	2,742,346	61,161,968
ECCC	10	7,710,295	7,517,675	150,000	473,599	8,141,274
INAC-LED	137	40,626,138	25,887,772	11,477,352	6,042,020	43,407,144
INAC-NAO	54	185,744,457	127,510,137	323,118	8,849,628	136,682,883
JCCBI	2	26,905,403	14,537,217	0	2,565,391	17,102,608
NCC	11	4,212,663	526,186	274,704	92,856	893,746
NRC	2	71,000	0	71,000	1,009,052	1,080,052
NRCan	1	400,000	0	225,567	770	226,337
PCA	44	6,008,215	1,066,397	1,198,734	206,399	2,471,530
PSPC	35	66,507,105	35,179,499	7,792,858	2,974,763	45,947,120
TC	71	35,718,289	12,177,004	5,085,326	2,140,694	19,403,024
VIA Rail	1	121,294	0	121,294	0	121,294
Total	**680**	**494,555,380**	**285,362,757**	**33,358,832**	**27,545,973**	**346,267,563**

Table C.3: Program-level summary of available FCSAP funding (2016-2017)

FCSAP Funds	Program management ($)	Assessment ($)	Remediation ($)	Total ($)
FCSAP funding approved for 2016-2017	26,972,882	22,157,573	362,490,474	411,620,929
FCSAP funding brought forward from previous fiscal years	123,568	170,651	131,923,579	132,217,798
FCSAP funds received from another custodian (+)	512,497	0	0	512,497
FCSAP funds given to another custodian (-)	-512,497	0	0	-512,497
FCSAP funds internally transferred to another stream (assessment, remediation, program management) (±)	-204,309	62,982	141,327	0
Total available FCSAP funding	**26,892,141**	**22,391,206**	**494,555,380**	**543,838,727**

Table C.4: Program-level summary of FCSAP expenditures and variance (2016-2017)

FCSAP Funds	Program Management ($)	Assessment ($)	Remediation ($)	Total ($)
FCSAP expenditures	24,520,732	18,873,420	318,721,589	362,115,741
FCSAP funds reprofiled to a future year	709	874,225	127,128,620	128,003,554
FCSAP funds carried forward to a future year	238,732	1,825,559	43,323,759	45,388,050
Internal cash-management of FCSAP funds to a future year	341,337	716,357	4,579,706	5,637,400
Lapsed FCSAP funds	1,790,631	101,645	801,706	2,693,982
Total variance	2,371,409	3,517,786	175,833,791	181,722,986
Custodian cost-share expenditures	**0**	**2,146,842**	**27,545,974**	**29,692,816**

Table C.5: List of remediation sites funded by FCSAP (2016-2017)

Custodian	Site Name	Federal Site Identifier	Province/ Territory	FCSAP Remediation Expenditures ($)	Custodian Expenditures ($)
AAFC	Biel Community Pasture	00001357	MB	22,470	0
AAFC	Central Experimental Farm	00001700	ON	86,826	0
AAFC	Coalfields Community Pasture	00001392	SK	10,595	0
AAFC	Coalfields Community Pasture	00001395	SK	138,374	0
AAFC	Cote San Clara Community Pasture	00001546	SK	25,111	0
AAFC	Cote San Clara Community Pasture	00001397	SK	142,294	0
AAFC	Dauphin-Ethelbert Community Pasture	00001864	MB	21,465	0
AAFC	Garry Community Pasture	00001564	SK	12,827	0
AAFC	Garry Community Pasture	00001565	SK	38,480	0
AAFC	Govenlock Community Pasture	00001481	SK	4,574	0
AAFC	Govenlock Community Pasture	00001482	SK	36,588	0
AAFC	Govenlock Community Pasture	00001675	SK	4,574	0
AAFC	Hazel Dell Community Pasture	00001572	SK	39,420	0
AAFC	Indian Head Shelterbelt Centre	13749002	SK	314,099	30
AAFC	Jean-Charles Chapais Farm	00001384	QC	10,900	0
AAFC	Jean-Charles Chapais Farm	00001643	QC	35,543	504
AAFC	Jean-Charles Chapais Farm	00001644	QC	10,900	0
AAFC	Jean-Charles Chapais Farm	00001645	QC	24,000	0
AAFC	Jean-Charles Chapais Farm	00001646	QC	37,000	0
AAFC	Jean-Charles Chapais Farm	00001647	QC	10,900	0
AAFC	Jean-Charles Chapais Farm	05940001	QC	10,900	0
AAFC	Kamloops Range Research Ranch	00001536	BC	38,366	0
AAFC	Kamloops Range Research Ranch	00001635	BC	38,366	0
AAFC	Kelowna Research Farm	00001632	BC	117,745	0
AAFC	Monet Community Pasture	00001830	SK	23,326	0
AAFC	Mount Hope Community Pasture	00001583	SK	54,851	0

Custodian	Site Name	Federal Site Identifier	Province/ Territory	FCSAP Remediation Expenditures ($)	Custodian Expenditures ($)
AAFC	Mount Hope Community Pasture	00001584	SK	6,095	0
AAFC	Paynton Community Pasture	00001591	SK	34,696	0
AAFC	Shamrock Community Pasture	00001594	SK	47,046	0
AAFC	Spy Hill-Ellice Community Pasture	00001363	SK	29,010	0
AAFC	Tecumseh Community Pasture	00001406	SK	69,096	0
AAFC	The Atlantic Food and Horticulture Research Centre	02731004	NS	124,541	21,978
AAFC	Turtle Mountain Community Pasture	00001407	MB	29,845	0
AAFC	Willner Community Pasture	00001598	SK	30,052	0
AAFC	Willner Community Pasture	00001599	SK	30,052	0
AAFC	Willner Community Pasture	00001600	SK	15,026	0
AAFC	Woodlands Community Pasture	00001358	MB	65,374	0
AAFC	Wreford Community Pasture	00001610	SK	48,261	0
AAFC	Wreford Community Pasture	00001611	SK	6,033	0
AAFC	Wreford Community Pasture	00001612	SK	6,033	0
CSC	210-C10 Springhill - Former UST Near Building A4 (removed in 2009)	00024574	NS	4,987	0
CSC	221-L01 Dorchester Complex - Former Landfill #1	00012995	NB	33,299	0
CSC	312-C05 Former Storage Tank Near Railroad	00024580	QC	26,500	0
CSC	330-C01 Leclerc Institution - Former Tank Nest Beside Central Heating Plant	00013010	QC	8,500	1,500
CSC	352-C11 TCE Contamination 2010	00024735	QC	37,991	0
CSC	416-C03 Kingston Penitentiary - Western exterior areas, Portsmouth Harbour side	00026073	ON	33,742	5,954
CSC	416-C04 Kingston Penitentiary - Exterior areas southern side	00026074	ON	88,195	15,564
CSC	431-C01 Isabel MacNeil House Historical Use of Lead Base Paint	00026432	ON	44,264	0

Custodian	Site Name	Federal Site Identifier	Province/ Territory	FCSAP Remediation Expenditures ($)	Custodian Expenditures ($)
CSC	441-C07 Frontenac Institution - Regional Garage Fuel Storage Tank System	00012983	ON	52,025	0
CSC	441-C20 Collins Bay - Equipment Shed FF33 Staining	00024741	ON	56,156	0
CSC	441-C25 Frontenac Institution - Debris Landfill	00024743	ON	48,496	0
CSC	441-L01 Collins Bay - Former Landfill at Northwest Corner of Property	00024663	ON	72,665	0
CSC	441-L02 Collins Bay - Southern Landfill (near Front Road)	00024662	ON	53,407	9,425
CSC	441-L03 Frontenac Institution - Landfill #3 at Quarry Road and Little Cataraqui Creek Tributary	00012990	ON	50,450	8,903
CSC	451-C11 Joyceville - Debris, Waste and Rubble at PP64	00024745	ON	13,170	0
CSC	451-C12-A Pittsburgh Former Underground Storage Tank	00024746	ON	14,955	2,639
CSC	451-C12-B Joyceville - Debris at PP55	00024747	ON	27,846	0
CSC	530-L01 Former Landfill at South West	00013023	AB	28,367	5,006
DFO	Addenbroke Island	67677001	BC	4,324	1,132
DFO	August - beacon	00012211	QC	1,850	0
DFO	Bacalhao Island - Fuel Storage, Oil Tank and Equipment Building (DFO 001)	00013076	NL	10,242	0
DFO	Baccalieu Island - NE Minor Aid	00012285	NL	21,640	0
DFO	Ballenas Island - Metal and Hydrocarbon on Ballenas Island Property	17675001	BC	10,586	2,250
DFO	Barr'd Harbour (SCH - Uplands - DFRP# 34810)	00024357	NL	12,022	0
DFO	Bartletts Harbour (Uplands - DFRP# 01660)	00024515	NL	9,240	0
DFO	Bayswater (Metal Impacts in Soil)	00013082	NB	139,979	0
DFO	Beauty Island - Metal & Petroleum Hydrocarbon Soil Contamination	00014156	ON	7,251	1,280
DFO	Berry Head - Lead in Soil	00012308	NS	27,500	0

Custodian	Site Name	Federal Site Identifier	Province/ Territory	FCSAP Remediation Expenditures ($)	Custodian Expenditures ($)
DFO	Bicquette Island - light station area	05469001	QC	4,819	850
DFO	Bird Rock - light station and other buildings	05077003	QC	38,622	6,816
DFO	Black Rock (Metals in Soil)	00017197	NS	22,346	0
DFO	Boat Bluff	67678001	BC	4,324	1,132
DFO	Bonilla Island - Sector Light	19482001	BC	4,324	1,132
DFO	Bouchard Island - rear range light	82059001	QC	105,623	18,639
DFO	Brion Island - light station and concrete slab	05078001	QC	20,970	3,701
DFO	Brothers Islands - Soils, former lighthouse area	67606001	ON	3,850	0
DFO	Cabot Head - Old Lighthouse Dwelling, Lightkeepers Dwelling, Waste pile	36440002	ON	78,864	13,917
DFO	Cap-de-Rabast (light station and adjacent concrete bases)	08029002	QC	510	90
DFO	Cape Beale	17809001	BC	4,324	1,132
DFO	Cape Mudge	18225001	BC	4,324	1,132
DFO	Cape Scott - Main station	19007001	BC	227,709	42,037
DFO	Cape Spear - Dwelling/Beacon Building - Area 1	00012247	NL	167,412	11,349
DFO	Cape Spear - Equipment Building - Area 2	00022927	NL	167,412	11,349
DFO	Carmanah Point	17533001	BC	4,324	1,132
DFO	Chatham Point	18090001	BC	4,324	1,132
DFO	Chrome Island - Range Light	18001001	BC	4,324	1,132
DFO	Clark Cove Range Front - Metal Contamination in Soil	00016829	NS	18,796	0
DFO	Clark Cove Range Rear - Metal Contamination in Soil	00023015	NS	18,796	0
DFO	Cole Harbour (Lead and Arsenic in Soil)	00017233	NS	19,078	0
DFO	Comfort Cove Former Decca Site	00025341	NL	213,192	0
DFO	Cove Island - Soil around lighthouse and associated structures	00000863	ON	30,681	5,414

Custodian	Site Name	Federal Site Identifier	Province/ Territory	FCSAP Remediation Expenditures ($)	Custodian Expenditures ($)
DFO	Cove Island - Main Dump	00024545	ON	30,681	5,414
DFO	Croucher Island - Metals in Soil	00017240	NS	27,727	0
DFO	Dalhousie Harbour Range Front - Metals in Soil around Tower	00016951	NB	26,255	0
DFO	Dalhousie Island Light - Metals in Soil	00016948	NB	26,396	0
DFO	Dawsons Landing Field Station - Generator ASTs	19158001	BC	48,632	8,633
DFO	Deline (Fort Franklin) (Area of the former pipeline)	00016213	NT	80,494	0
DFO	Discovery Island - Metals and Hydrocarbons in Dump Areas	17425001	BC	10,586	2,250
DFO	Dover (Metals in Soil)	00017252	NS	41,357	0
DFO	Dryad Point	67679001	BC	4,324	1,132
DFO	Duncan Head - Metal Impacts in Soil (As)	00017258	NS	19,770	0
DFO	East Ferry (Hydrocarbon Impacts in Waste Oil Tank Area)	00017766	NS	49,854	0
DFO	Egg Island	67680001	BC	4,324	1,132
DFO	Entrance Island	17611001	BC	4,324	1,132
DFO	Entrance Island - minor shore light	00013328	QC	16,328	0
DFO	Estevan Point	17813001	BC	4,324	1,132
DFO	Fairhaven (Petroleum Hydrocarbon Contamination Soil - AST)	00018043	NB	37,587	0
DFO	Ferryland (Finger Pier Waterlot - DFRP# 34605)	00022970	NL	34,233	0
DFO	Ferryland (Uplands - DFRP# 32670)	00019089	NL	34,233	0
DFO	Fort Providence Sub-Base (Area by stockpile of waste batteries)	32051004	NT	35,421	0
DFO	Fort Providence Sub-Base (Area in front of Sub Base garage)	32051003	NT	35,421	0
DFO	Fort Providence Sub-Base (helipad)	32051002	NT	35,421	0
DFO	Fort Providence Sub-Base (Landfill)	32051001	NT	35,421	0
DFO	Fortune (Fish Plant Wharf - DFRP# 00494 - Uplands)	00490002	NL	42,500	7,500

Custodian	Site Name	Federal Site Identifier	Province/ Territory	FCSAP Remediation Expenditures ($)	Custodian Expenditures ($)
DFO	Fortune (Fish Plant Wharf - DFRP# 00494 - Waterlot)	00490003	NL	12,723	0
DFO	Georgetown Range Front (Metals and Potential Hydrocarbons in Soil)	01940001	PE	8,513	0
DFO	Georgetown Range Rear (Metal Impacted Soil, Potential Hydrocarbon Impacts)	81058001	PE	8,513	0
DFO	Gereaux Island (Britt IRB) - Landing pad, residence, and boathouse area	00013239	ON	111,413	19,661
DFO	Gereaux Island (Britt IRB) - Soils around the lightshouse	00012239	ON	111,413	19,661
DFO	Goodfellow Bar Range Front (Metals in Soil, Lead in Paint)	00017628	NB	20,525	0
DFO	Goodfellow Bar Range Rear (Metals in Soil, Lead in Paint)	00023170	NB	20,525	0
DFO	Grand Dune Flats Range Front - Metal impacted soil near the former light	04637001	NB	26,034	0
DFO	Great Duck Island - Lightstation/ Engine Building/Dump - Metals, PH, PAH	07503001	ON	141,868	25,036
DFO	Green Island	67681001	BC	4,324	1,132
DFO	Grenadier Island L.L. 361 (Surrounding Navigational Aid)	83878001	ON	70,157	4,312
DFO	Griffith Island - Vicinity of Lighthouse	58231001	ON	75,906	13,395
DFO	Gunning Cove (Petroleum Impacts - Waste Oil Storage Area)	26688002	NS	65,651	0
DFO	Gunning Point Island - Metals in Soil	00012313	NS	33,167	0
DFO	Guyon Island - Metals and Hydrocarbon Impacts in Soil/GW	03642001	NS	8,835	0
DFO	Halifax Harbour Inner Range Rear (Metals in Soil)	00017298	NS	35,621	0
DFO	Harbour Island - Dwelling/Storage Area - (DFO 002)	34902002	NL	13,112	0
DFO	Harbour Island - Main Site Area - (DFO 001)	34902001	NL	13,112	0
DFO	Harbour Island - Slipways Site (DFO 003)	00023053	NL	13,112	0
DFO	Heath Point - trailers, light station, heliport and tanks	08028002	QC	34,058	6,010

Custodian	Site Name	Federal Site Identifier	Province/ Territory	FCSAP Remediation Expenditures ($)	Custodian Expenditures ($)
DFO	Heron Island Light - Lead in Soil	00016972	NB	11,269	0
DFO	Herring Cove - Metal Impacts	00017308	NS	35,574	0
DFO	Indian Harbour - Metal Impacts in Soil	02838001	NS	8,835	0
DFO	Ingonish Ferry (South Ingonish) (soil hydrocarbon impacts)	00017794	NS	8,835	0
DFO	Isaacs Harbour (Metals Impacts in Soil)	00012307	NS	16,512	0
DFO	Ivory Island	67682001	BC	4,324	1,132
DFO	Jannacks Narrows - Light Tower (former and current)	83474001	ON	39,309	6,937
DFO	Judes Point - Hydrocarbons in Soil and Groundwater	00017979	PE	47,677	0
DFO	Kaulback Island Range Front - Metal Impacts in Soil	02655001	NS	27,732	0
DFO	Kaulback Island Range Rear - Metal Impacts in Soil	81086001	NS	22,217	0
DFO	Kraut Point (Riverport) (Hydrocarbon and Metal Impacts Soil and Groundwater)	00017804	NS	120,619	0
DFO	Langara Island	19401001	BC	4,324	1,132
DFO	Leards Range Rear - Metals in Soil near light structure	81088001	PE	298,434	0
DFO	Lennard Island	17812001	BC	40,637	7,318
DFO	Les Aboiteaux (Dupuis Corner) - Benzene, Uranium and PAH Impacts in soil	04312002	NB	21,244	4,958
DFO	Little Bras d'Or Range Front (Metal Impacts in Soil)	00017336	NS	32,886	0
DFO	Little Bras d'Or Range Rear (Metal Impacts in Soil)	00017337	NS	24,325	0
DFO	Little Narrows (Metals and Hydrocarbons in Soil)	00017345	NS	31,530	0
DFO	Little River (Digby County) (no soil impacts)	00017827	NS	40,482	0
DFO	Louisbourg Range Front (Metal Impacts in Soil)	00017360	NS	17,417	0
DFO	Maces Bay (PAH in soil near wharf area)	00018069	NB	23,769	0

Custodian	Site Name	Federal Site Identifier	Province/ Territory	FCSAP Remediation Expenditures ($)	Custodian Expenditures ($)
DFO	Mackenzie Point - rear range light	00021957	QC	16,328	0
DFO	Malpeque Outer Range Rear (Metals Impacts)	81104001	PE	107,830	0
DFO	Man Of War Point Range Front - Arsenic in Soil	00017383	NS	17,663	0
DFO	Margaree Harbour Range Front (Metals in Soil)	00016851	NS	28,890	0
DFO	Margaree Harbour Range Rear (Metal Contamination in Soil)	00016852	NS	28,890	0
DFO	Mathers Creek - Enhancement	00021003	BC	120,052	41,186
DFO	McInnes Island	67683001	BC	4,324	1,132
DFO	Merry Island	18460001	BC	4,324	1,132
DFO	Metals - Gooseberry Island Shore Light	83414001	NT	58,887	43,465
DFO	Michipicoten Island East End (E. Landfill/Generator Building/ Lighthouse)	67652001	ON	106,324	18,763
DFO	Michipicoten Island East End (SE and W of Waste Landfill)	67652002	ON	106,324	18,763
DFO	Mouton Harbour Outer Range Front - Metal Contamination in Soil	00017400	NS	25,686	0
DFO	Mutton Bay - rear range light	00021977	QC	16,328	0
DFO	Niagara River Range Rear - Soils surrounding structure - metals	00013933	ON	60,500	0
DFO	Nine Mile Creek - Metals & Hydrocarbons in soil	22426001	PE	34,023	0
DFO	Nootka Island	18086001	BC	4,324	1,132
DFO	North Canso (Metals in Soil near Former Light)	00012321	NS	63,397	0
DFO	North Harbour (Placentia Bay - Uplands)	00019238	NL	18,430	0
DFO	North Harbour (Placentia Bay - Waterlot)	00019239	NL	18,430	0
DFO	Northwest Head - Lightstation - DFRP# 34855	00013098	NL	12,785	0
DFO	Pachena Point	17810001	BC	4,324	11,132
DFO	Pennant Harbour - Barium and Lead in Soil	00012305	NS	19,767	0

Custodian	Site Name	Federal Site Identifier	Province/ Territory	FCSAP Remediation Expenditures ($)	Custodian Expenditures ($)
DFO	Pine Island	19125001	BC	4,324	1,132
DFO	Plate Island - Lower North Shore - minor shore light	08280001	QC	79,273	0
DFO	Pointe au Baril Range Rear - Area around the range	00014837	ON	47,654	81,834
DFO	Pointe Sapin Range Rear - Lead in Soil near Tower	00017058	NB	113,856	0
DFO	Port Hood Range Rear (Metals in Soil)	00016875	NS	10,091	0
DFO	Prince Regent Island - soil near the lighthouse	83764001	ON	3,850	0
DFO	Prince Rupert Marine Station, Sourdough Bay - Fire Pit and Oil Change Ramp	00000881	BC	66,389	11,716
DFO	Pulteney Point	19084001	BC	4,324	1,132
DFO	Quaker Island - Metals in Soil	00017456	NS	25,721	0
DFO	Quatsino, Kains Island - Assistant keeper's house & engine room	19006001	BC	4,324	1,132
DFO	Quinsam River Hatchery - Fuel spill near the Clarifier pump house	00002335	BC	16,473	2,907
DFO	Redmond Head - Metals in Soil	00012231	NS	21,353	0
DFO	Rivière-St-Paul (Esquimaux Island, SCH, Waterlot, Sediments)	00022172	QC	25,500	4,500
DFO	Rushoon (Waterlot)	00019305	NL	36,802	0
DFO	Sainte-Marie Island - minor shore light	08269001	QC	38,290	6,757
DFO	Sally's Cove (North Uplands - DFRP# 05863)	00019306	NL	13,363	0
DFO	Sally's Cove (South Uplands - DFRP# 05863)	00024500	NL	13,363	0
DFO	Scarlett Point	19052001	BC	4,324	1,132
DFO	Scatarie Island - Hydrocarbon, Metal, PAH and PCB Impacted Soil	03641001	NS	12,426	0
DFO	Sheet Harbour Passage Range Front (Metals in Soil)	03111001	NS	61,556	0
DFO	Slate Island - Light Tower	56027002	ON	56,430	44,126
DFO	Slate Island - South Side of the Island	56027001	ON	73,607	12,989

Custodian	Site Name	Federal Site Identifier	Province/ Territory	FCSAP Remediation Expenditures ($)	Custodian Expenditures ($)
DFO	Slate Island - North Side of Slate Island	56027003	ON	56,430	44,126
DFO	Spry Bay Sector (Metals in soil near light and Helipad)	03114001	NS	143,237	0
DFO	St. Peters Island - Metals impacted soil	00016760	PE	33,656	0
DFO	Steveston (Paramount) - Maintenance area (Building 33)	16760001	BC	217,911	38,473
DFO	Stoddart Island - Metals in Soil	00017490	NS	189,384	0
DFO	Stokes Bay Range Rear (Near rear range)	85917001	ON	94,894	0
DFO	Stuart Town (Soil and Groundwater Impacts)	00018109	NB	8,712	0
DFO	Summerside Range Rear (Lead in Soil)	00016765	PE	8,513	0
DFO	Swift Point Lightstation - Heavy Metal Impacted Soil around the light	03923001	NB	34,413	0
DFO	Sydney Range Front (Soil Impacts Around Light - Metals/HC/PAHs)	03747001	NS	21,711	0
DFO	Sydney Range Rear (Soil-metals/petroleum)	32962001	NS	21,711	0
DFO	Tête-à-la-Baleine - int., rear range light	82082001	QC	16,328	0
DFO	Three Mile Gap - Vicinity of Daymark	85124001	ON	30,564	5,394
DFO	Tizzard's Harbour (Uplands - DFRP# 01396)	00019373	NL	10,751	0
DFO	Trial Islands	17330001	BC	4,324	1,132
DFO	Vieux-Fort Channel - front range light	00021988	QC	16,328	0
DFO	Vieux-Fort Channel - rear range light	00021989	QC	16,328	0
DFO	Warren Cove Range Front - Metal impacted soil	02070001	PE	47,143	0
DFO	Warren Cove Range Rear - Metal and Mercury Impacted Soil	02071001	PE	51,241	0
DFO	Wesleyville (SCH Main Wharf Facility - Uplands)	01267001	NL	9,696	0
DFO	Wesleyville (SCH Slipway - Uplands)	01267002	NL	9,696	0
DFO	Westhaver Island - Metals in Soil	00017519	NS	23,179	0

Custodian	Site Name	Federal Site Identifier	Province/ Territory	FCSAP Remediation Expenditures ($)	Custodian Expenditures ($)
DFO	Whitefish Point (Fuel Storage)	00012760	MB	50,684	0
DFO	Windy Bay - used batteries 60 m west of shore light	83385002	NT	49,887	19,580
DFO	Windy Bay (Windy Bay Shore Light)	83385001	NT	49,887	19,580
DND	5 Wing Goose Bay, Canadian Side & Northside	01822018	NL	2,743,024	21,136
DND	5 Wing Goose Bay, Dome Mountain, RCAF and Camp Sites (5 W)	N7075001	NL	1,787,428	0
DND	5 Wing Goose Bay, Hydrant Area Fuel Plumes (HYD9010)	01822043	NL	1,294,769	0
DND	5 Wing Goose Bay, Lower Tank Farm (LTF 2000 Series)	01822094	NL	4,598,867	236,532
DND	5 Wing Goose Bay, Main Gate & Hamilton River Road Plume (UPL 16000 series) 5W	N7077001	NL	1,054,626	0
DND	5 Wing Goose Bay, South Escarpment Landfills (SES 1000 Series)	01822087	NL	3,461,395	0
DND	5 Wing Goose Bay, South Escarpment Stillwaters (SES 1100 series)	00008429	NL	216,108	0
DND	5 Wing Goose Bay, Survival Tank Farm (STF 3000 Series)	01822086	NL	513,156	0
DND	5 Wing Goose Bay, Upper Tank Farm - Fuel Recovery Site (UTF 4000 Series)	01822085	NL	665,695	0
DND	8 W Fire Fighting Training Area / Hazardous Materials Storage	09540012	ON	307,729	76,218
DND	Aerodrome - West of runway 18-36	07930004	QC	34,701	6,124
DND	Alert B-145 Cat House	20247019	NU	9,435	1,665
DND	Alert Baker's Dozen	20247035	NU	15,300	2,700
DND	AMDU Landfill Site	09540010	ON	271,297	47,876
DND	Amherst Rifle Range (5403) - Range firing pts, butt stops	03186001	NS	7,319	1,292
DND	Anglin Bay	00024837	ON	29,702	5,242
DND	Atmosphere simulation (former dump), DRDC -South	29757003	QC	19,123	3,375
DND	Building 151 Area	09540007	ON	79,706	14,066
DND	Cadet Camp Landfill & Firing Range	00008347	ON	74,921	13,221

Custodian	Site Name	Federal Site Identifier	Province/ Territory	FCSAP Remediation Expenditures ($)	Custodian Expenditures ($)
DND	Castor Centre PHL T-610	05906059	QC	292,381	51,597
DND	CFB Petawawa RTA - Area 8 (Demolition Range)	00008335	ON	92,650	16,350
DND	CFB Shearwater (211) - Landfill 1	02863011	NS	42,229	7,452
DND	CFB Shearwater (213) - Landfill 3	02863013	NS	25,607	4,519
DND	CFB Shearwater (214) - Landfill 4	02863014	NS	17,071	3,013
DND	CFB Shearwater (216) - Fill Area West of Alpha Taxiway	02863016	NS	16,969	2,995
DND	CFS St John's (4710) - Pussey's Hill Rifle Range	00273001	NL	104,348	18,414
DND	CFS St John’s (4910) - Southside Road Tank Farm	32044001	NL	11,466	2,023
DND	CFS St John’s (5210) - Shea Heights Tank Farm	32044002	NL	105,846	18,679
DND	Coal Storage #2	11022075	ON	37,958	6,699
DND	Colwood Former Fuel Oil Depot (FOD) North Area	00024819	BC	291,503	51,442
DND	DCD School (907) - Fire Fighting Training Area	03044007	NS	71,958	24,761
DND	DEW Line - FOX-4 Cape Hooper	C7024001	NU	140,082	30,558
DND	DEW Line - CAM-1 Jenny Lind Island	C7017001	NU	124,374	27,776
DND	DEW Line - CAM-3 Sheppard Bay	C7027001	NU	78,463	51,669
DND	DEW Line - CAM-4 Pelly Bay	C7019001	NU	80,007	52,720
DND	DEW Line - CAM-5 Mackar Inlet	C7020001	NU	34,968	11,998
DND	DEW Line - DYE-M Cape Dyer	C7026001	NU	246,449	5,837
DND	DEW Line - FOX-3 Dewar Lakes	C7023001	NU	143,942	25,401
DND	DEW Line - PIN-2 Cape Young	C7013001	NU	90,097	21,727
DND	DEW Line - PIN-4 Byron Bay	C7015001	NU	97,817	23,089
DND	DEW Line - CAM-2 Gladman Point	C7018001	NU	21,813	14,847
DND	DEW Line - FOX-2 Longstaff Bluff	C7022001	NU	150,756	32,431
DND	DEW Line - FOX-5 Broughton Island	C7025001	NU	72,733	47,769

Custodian	Site Name	Federal Site Identifier	Province/ Territory	FCSAP Remediation Expenditures ($)	Custodian Expenditures ($)
DND	DRDC (1408) - Waste solvent dumping (East of building 2)	03013004	NS	30,890	5,451
DND	Dry material (former dump for), DRDC - South	29757002	QC	19,122	3,375
DND	DY-4 Dockyard FMF Consolidation	17403003	BC	3,325,682	595,885
DND	ESQ 1 - Esquimalt Harbour	17403011	BC	26,991,491	0
DND	Fire Fighting Training Area #1	11022039	ON	112,832	19,911
DND	Former CFS Moisie - Site Admin	N7096001	QC	2,020,428	410,830
DND	Former CFS Sydney	N7095001	NS	26,911	21,418
DND	Former dump Château Road	05906047	QC	27,785	4,903
DND	Former skeet range	00008337	QC	12,192	2,151
DND	FOX-B SRR (Nadluardjuk Lake) - North-West of site summit	69775001	NU	77,022	13,592
DND	Hangar 5 & 6	00024810	ON	224,092	39,546
DND	HMCS Champlain - Chicoutimi Naval Reserve	69920001	QC	163,837	28,912
DND	Land adjacent to the former well P-2	05906061	QC	50,307	8,878
DND	Le RHIN former demolition area	05906041	QC	23,104	4,077
DND	MA-1a Masset Skeet Range	00008529	BC	234,490	41,381
DND	'MDR' (former dump for), DRDC - Trials	29757006	QC	189,226	33,393
DND	Middleton Park Landfill Site	09540009	ON	11,919	2,103
DND	Mount Apica - north slope	05613001	QC	2,508	443
DND	Mountain View - Inner Landfill Site	34476004	ON	311,058	54,893
DND	New ATESS Refinishing Shop	00008541	ON	346,120	61,080
DND	Niagara-on-the-lake Rifle Range	10626002	ON	91,300	16,112
DND	Oxidator Building (back of building)	20247006	NU	15,300	2,700
DND	Plateau (demolition site), DRDC - Trials	29757009	QC	181,975	32,113
DND	POL Compound	04089001	NB	13,930	2,458

Custodian	Site Name	Federal Site Identifier	Province/ Territory	FCSAP Remediation Expenditures ($)	Custodian Expenditures ($)
DND	POL Compound - area of removed tanks	09540020	ON	216,117	38,138
DND	POL tank farm	07930009	QC	69,293	12,228
DND	Refuelling Facility 2	10992006	ON	24,139	4,260
DND	Royal Roads Landfill Area	15684029	AB	228,178	40,267
DND	RV Compound	11378001	ON	70,657	12,469
DND	Saglek Bay Sediments	N7040001	NL	1,275	225
DND	Sector for Building 307, DRDC - Trials	29757005	QC	183,774	32,431
DND	Shearwater (222B) Former POL (D) & UST (S) Building 212 & HY	02863045	NS	37,488	6,615
DND	Shearwater (230) - Building 31, 31A ,31B ,32 (Mobile Support Maintenance)	02863030	NS	63,799	11,259
DND	Shirley Road Dump	04089010	NB	40,317	7,115
DND	Small calibre (Former dump), DRDC - South	29757001	QC	19,123	3,375
DND	South Reboubt RMC St-Jean	00008463	QC	13,600	2,400
DND	Stony Point (former Camp Ipperwash)	10829001	ON	706,317	382,409
DND	Stream draining former DDT site in Farnham	00008562	QC	349,377	61,655
DND	Sudbury Armoury	00008448	ON	258,676	45,649
DND	TCE Contamination - Highbury Complex	10868001	ON	60,727	10,717
DND	TCE Contamination - Valcartier	29757007	QC	797,834	252,330
DND	Training areas, former CARPIQUET firing range	05906044	QC	238,251	42,044
DND	Wellington Anti-Tank Range	00008409	NB	12,632	2,229
DND	Wolseley Barracks	10869001	ON	42,449	7,491
DND	YA-1 Former Hazardous Waste Containment Facility	17404004	BC	906,291	310,985
ECCC	Eureka High Arctic Weather Station	00002747	NU	16,171	2,854
ECCC	Fort Reliance	00002376	NT	87,439	15,430

Custodian	Site Name	Federal Site Identifier	Province/ Territory	FCSAP Remediation Expenditures ($)	Custodian Expenditures ($)
ECCC	Lansdowne House	12204000	ON	181,204	31,977
ECCC	Mould Bay (HAWS)	70944001	NT	628,369	85,478
ECCC	Pacific Environmental Centre	N/A	BC	4,833,990	0
ECCC	Sable Island	07610122	NS	65,361	11,534
ECCC	Sainte-Marie Island	00001288	QC	5,851	1,032
ECCC	Severn River at Limestone Rapids	00002360	ON	100,351	17,709
ECCC	Wilmer Marsh (dumping area)	16096079	BC	1,742,976	307,584
ECCC	Wye Marsh NWA - Farm Dump Area	00026072	ON	5,964	0
INAC-LED	64 - Timiskaming First Nation - 06092 - TIMISKAMING - 2000038996	05207002	QC	10,000	4,114
INAC-LED	67 - Long Point First Nation - 06133 - WINNEWAY INDIAN SETTLEMENT - 2000051098	05352002	QC	19,455	0
INAC-LED	77 - Conseil des Atikamekw de Wemotaci - 06103 - COMMUNAUTÉ DE WEMOTACI - QC04876717	00026018	QC	5,622	0
INAC-LED	79 - Atikamekw d'Opitciwan - 06105 - OBEDJIWAN 28 - 0301032102	05205004	QC	15,000	59,294
INAC-LED	79 - Atikamekw d'Opitciwan - 06105 - OBEDJIWAN 28 - 0302543305	00005225	QC	7,458	1,189
INAC-LED	79 - Atikamekw d'Opitciwan - 06105 - OBEDJIWAN 28 - 0302546505	00005257	QC	20,931	0
INAC-LED	79 - Atikamekw d'Opitciwan - 06105 - OBEDJIWAN 28 - 0303903608	00007307	QC	8,822	0
INAC-LED	79 - Atikamekw d'Opitciwan - 06105 - OBEDJIWAN 28 - 2000091701	05205002	QC	6,224	0
INAC-LED	83 - Montagnais de Natashquan - 06108 - NUTASHKUAN - QC04877017	00026487	QC	100,000	0
INAC-LED	84 - Montagnais de Unamen Shipu - 06109 - ROMAINE 2 - QC04869616	00025954	QC	108,924	0
INAC-LED	126 - Couchiching First Nation - 06241 - COUCHICHING 16A - 3000014095	05152001	ON	172,744	38,231
INAC-LED	143 - Attawapiskat - 06259 - ATTAWAPISKAT 91 - 0402307505	00000595	ON	32,447	5,726
INAC-LED	143 - Attawapiskat - 06259 - ATTAWAPISKAT 91 - 0402307605	00000596	ON	28,233	4,982

Custodian	Site Name	Federal Site Identifier	Province/ Territory	FCSAP Remediation Expenditures ($)	Custodian Expenditures ($)
INAC-LED	143 - Attawapiskat - 06259 - ATTAWAPISKAT 91 - 3000051796	00006891	ON	199,860	35,270
INAC-LED	183 - Eabametoong First Nation - 06296 - FORT HOPE 64 - 0404779810	00007859	ON	15,820	0
INAC-LED	183 - Eabametoong First Nation - 06296 - FORT HOPE 64 - 3000025795	00000458	ON	130,738	23,072
INAC-LED	183 - Eabametoong First Nation - 06296 - FORT HOPE 64 - 3000025895	00000457	ON	100,856	17,798
INAC-LED	183 - Eabametoong First Nation - 06296 - FORT HOPE 64 - 3000025995	05157001	ON	85,914	15,161
INAC-LED	183 - Eabametoong First Nation - 06296 - FORT HOPE 64 - 3000026095	05157006	ON	34,717	0
INAC-LED	183 - Eabametoong First Nation - 06296 - FORT HOPE 64 - 3000026395	05157007	ON	12,744	0
INAC-LED	183 - Eabametoong First Nation - 06296 - FORT HOPE 64 - 3000026495	05157008	ON	2,637	0
INAC-LED	186 - Marten Falls - 06299 - MARTEN FALLS 65 - 3000027095	05166001	ON	68,314	4,271
INAC-LED	186 - Marten Falls - 06299 - MARTEN FALLS 65 - 3000027195	05166002	ON	35,305	2,207
INAC-LED	186 - Marten Falls - 06299 - MARTEN FALLS 65 - 3000027395	05166003	ON	3,213	201
INAC-LED	186 - Marten Falls - 06299 - MARTEN FALLS 65 - 3000027495	00000463	ON	20,668	1,292
INAC-LED	201 - Serpent River - 06185 - SERPENT RIVER 7 - 3000047696	05185001	ON	56,658	0
INAC-LED	204 - North Caribou Lake - 06315 - WEAGAMOW LAKE 87 - 0402702806	00006671	ON	248,455	43,845
INAC-LED	204 - North Caribou Lake - 06315 - WEAGAMOW LAKE 87 - 0402704806	00006672	ON	67,454	0
INAC-LED	204 - North Caribou Lake - 06315 - WEAGAMOW LAKE 87 - 0402705006	00006673	ON	44,969	0
INAC-LED	204 - North Caribou Lake - 06315 - WEAGAMOW LAKE 87 - 0402705206	00006675	ON	298,147	52,614
INAC-LED	204 - North Caribou Lake - 06315 - WEAGAMOW LAKE 87 - 0402705306	00006676	ON	60,709	0
INAC-LED	204 - North Caribou Lake - 06315 - WEAGAMOW LAKE 87 - 0402705506	00006678	ON	15,739	0
INAC-LED	204 - North Caribou Lake - 06315 - WEAGAMOW LAKE 87 - 3000005894	05190003	ON	516,023	91,063

Custodian	Site Name	Federal Site Identifier	Province/ Territory	FCSAP Remediation Expenditures ($)	Custodian Expenditures ($)
INAC-LED	204 - North Caribou Lake - 06315 - WEAGAMOW LAKE 87 - 3000020095	05190006	ON	210,231	37,100
INAC-LED	204 - North Caribou Lake - 06315 - WEAGAMOW LAKE 87 - 3000020395	05190007	ON	478,838	83,278
INAC-LED	207 - Bearskin Lake - 06319 - BEARSKIN LAKE - 0403509108	00006981	ON	4,284	10,058
INAC-LED	207 - Bearskin Lake - 06319 - BEARSKIN LAKE - 0403509708	00006985	ON	193,216	97,144
INAC-LED	207 - Bearskin Lake - 06319 - BEARSKIN LAKE - 0403511208	00006989	ON	2,416	1,029
INAC-LED	207 - Bearskin Lake - 06319 - BEARSKIN LAKE - 3000006994	05147001	ON	33,569	22,745
INAC-LED	207 - Bearskin Lake - 06319 - BEARSKIN LAKE - 3000017495	05147006	ON	30,384	20,587
INAC-LED	207 - Bearskin Lake - 06319 - BEARSKIN LAKE - 3000054196	00007881	ON	111,479	75,533
INAC-LED	207 - Bearskin Lake - 06319 - BEARSKIN LAKE - 3000117000	00007891	ON	19,362	13,119
INAC-LED	207 - Bearskin Lake - 06319 - BEARSKIN LAKE / 0404783610	00007862	ON	41,022	17,472
INAC-LED	208 - Pikangikum - 06320 - PIKANGIKUM 14 - 3000007494	05176001	ON	138,749	224,486
INAC-LED	208 - Pikangikum - 06320 - PIKANGIKUM 14 - 3000007994	05176004	ON	17,789	3,138
INAC-LED	208 - Pikangikum - 06320 - PIKANGIKUM 14 - 3000008294	05176006	ON	17,788	3,139
INAC-LED	208 - Pikangikum - 06320 - PIKANGIKUM 14 - 3000062796	05176008	ON	2,093	0
INAC-LED	208 - Pikangikum - 06320 - PIKANGIKUM 14 - 3000063096	05176010	ON	2,093	0
INAC-LED	213 - Muskrat Dam Lake - 06327 - MUSKRAT DAM LAKE - 3000008694	05170001	ON	541,791	117,557
INAC-LED	213 - Muskrat Dam Lake - 06327 - MUSKRAT DAM LAKE - 3000008794	05170002	ON	1,213,613	263,327
INAC-LED	213 - Muskrat Dam Lake - 06327 - MUSKRAT DAM LAKE - 3000009094	05170004	ON	411,762	89,343
INAC-LED	216 - Cat Lake - 06332 - CAT LAKE 63C - 3000052696	05150002	ON	164,608	0
INAC-LED	216 - Cat Lake - 06332 - CAT LAKE 63C - 3000056096	05150009	ON	12,390	0

Custodian	Site Name	Federal Site Identifier	Province/ Territory	FCSAP Remediation Expenditures ($)	Custodian Expenditures ($)
INAC-LED	217 - Wunnumin - 06333 - WUNNUMIN 1 - 3000035195	05194001	ON	206,185	37,809
INAC-LED	217 - Wunnumin - 06333 - WUNNUMIN 1 - 3000035695	05194003	ON	573,652	105,192
INAC-LED	217 - Wunnumin - 06333 - WUNNUMIN 1 - 3000035895	05194014	ON	36,043	6,611
INAC-LED	217 - Wunnumin - 06333 - WUNNUMIN 1 - 3000035995	05194004	ON	422,603	77,494
INAC-LED	217 - Wunnumin - 06333 - WUNNUMIN 1 - 3000040896	05194007	ON	126,002	23,105
INAC-LED	217 - Wunnumin - 06333 - WUNNUMIN 1 - 3000040996	05194008	ON	29,630	5,433
INAC-LED	217 - Wunnumin - 06333 - WUNNUMIN 1 - 3000104197	05194010	ON	22,756	4,897
INAC-LED	217 - Wunnumin - 06333 - WUNNUMIN 1 - 3000104297	05194011	ON	109,813	20,136
INAC-LED	239 - Neskantaga First Nation - 06355 - LANSDOWNE HOUSE INDIAN SETTLEMENT - 3000028095	00000456	ON	61,419	10,838
INAC-LED	239 - Neskantaga First Nation - 06355 - LANSDOWNE HOUSE INDIAN SETTLEMENT - 3000028795	05164002	ON	152,945	26,990
INAC-LED	239 - Neskantaga First Nation - 06355 - LANSDOWNE HOUSE INDIAN SETTLEMENT - 3000029095	05164005	ON	33,206	1,860
INAC-LED	239 - Neskantaga First Nation - 09213 - NESKANTAGA - ON04790610	00007873	ON	35,420	0
INAC-LED	239 - Neskantaga First Nation - 09213 - NESKANTAGA - ON04795010	00008211	ON	12,043	0
INAC-LED	239 - Neskantaga First Nation - 09213 - NESKANTAGA - ON04795110	00008212	ON	3,914	691
INAC-LED	239 - Neskantaga First Nation - 09213 - NESKANTAGA - ON04795210	00008213	ON	1,417	0
INAC-LED	239 - Neskantaga First Nation - 09213 - NESKANTAGA - ON04795310	00008214	ON	13,460	0
INAC-LED	240 - Webequie - 06337 - WEBEQUIE INDIAN SETTLEMENT - 0404167609	00007586	ON	280,746	49,543
INAC-LED	240 - Webequie - 06337 - WEBEQUIE INDIAN SETTLEMENT - 0404167709	00007587	ON	3,264,571	576,102
INAC-LED	240 - Webequie - 06337 - WEBEQUIE INDIAN SETTLEMENT - 0404169609	00007588	ON	35,000	0

Custodian	Site Name	Federal Site Identifier	Province/ Territory	FCSAP Remediation Expenditures ($)	Custodian Expenditures ($)
INAC-LED	240 - Webequie - 06337 - WEBEQUIE INDIAN SETTLEMENT - ON04827711	00008210	ON	53,990	9,527
INAC-LED	260 - Black River First Nation - 06360 - BLACK RIVER 9 - 0502597105	00005763	MB	1,028,590	0
INAC-LED	266 - Berens River - 06368 - BERENS RIVER 13 - 0502581405	00005606	MB	45,000	0
INAC-LED	266 - Berens River - 06368 - BERENS RIVER 13 - 0502582005	00005612	MB	11,473	23,727
INAC-LED	266 - Berens River - 06368 - BERENS RIVER 13 - 0504683610	00007801	MB	45,000	0
INAC-LED	268 - Kinonjeoshtegon First Nation - 06371 - JACKHEAD 43 - 0502590405	00005696	MB	671,891	4,802
INAC-LED	269 - Peguis - 06373 - PEGUIS 1B - 4000024197	05321001	MB	23,065	4,070
INAC-LED	269 - Peguis - 06373 - PEGUIS 1B - 4000044001	05321004	MB	981,011	0
INAC-LED	270 - Little Grand Rapids - 06376 - LITTLE GRAND RAPIDS 14 - MB04839112	19118041	MB	2,006,530	293,637
INAC-LED	276 - Cross Lake Band of Indians - 06469 - CROSS LAKE 19E - 0502452305	00004315	MB	235,000	0
INAC-LED	277 - Poplar River First Nation - 06391 - POPLAR RIVER 16 - 4000026197	05322001	MB	70,000	0
INAC-LED	277 - Poplar River First Nation - 06391 - POPLAR RIVER 16 - MB04850714	00025879	MB	127,500	22,500
INAC-LED	281 - Skownan First Nation - 06395 - WATERHEN 45 - 0503626408	00007155	MB	1,337,275	230,625
INAC-LED	297 - Garden Hill First Nations - 06448 - GARDEN HILL FIRST NATION - 0502583005	00005622	MB	402,351	0
INAC-LED	297 - Garden Hill First Nations - 06448 - GARDEN HILL FIRST NATION - 0503396908	00006936	MB	35,561	6,276
INAC-LED	297 - Garden Hill First Nations - 06448 - GARDEN HILL FIRST NATION - 0503599308	00007031	MB	150,000	0
INAC-LED	297 - Garden Hill First Nations - 06448 - GARDEN HILL FIRST NATION - 4000018696	00025923	MB	127,500	22,500

Custodian	Site Name	Federal Site Identifier	Province/ Territory	FCSAP Remediation Expenditures ($)	Custodian Expenditures ($)
INAC-LED	298 - St. Theresa Point - 09147 - ST THERESA POINT - 4000038700	00006601	MB	512,855	47,890
INAC-LED	299 - Wasagamack First Nation - 09148 - WASAGAMACK - 0502601305	00005805	MB	59,013	11,238
INAC-LED	299 - Wasagamack First Nation - 09148 - WASAGAMACK - MB04794710	00007916	MB	59,013	11,238
INAC-LED	300 - Red Sucker Lake - 06467 - RED SUCKER LAKE 1976 - 0502593005	00005722	MB	132,704	28,436
INAC-LED	301 - Bunibonibee Cree Nation - 06446 - OXFORD HOUSE 24 - 0502571805	00005510	MB	30,831	6,727
INAC-LED	301 - Bunibonibee Cree Nation - 06446 - OXFORD HOUSE 24 - 0502572605	00005518	MB	30,831	6,727
INAC-LED	302 - Manto Sipi Cree Nation - 06449 - GOD'S RIVER 86A - 0502564405	00005436	MB	190,000	0
INAC-LED	307 - Shamattawa First Nation - 06460 - SHAMATTAWA 1 - 0503403208	00006940	MB	1,507,156	291,185
INAC-LED	307 - Shamattawa First Nation - 06460 - SHAMATTAWA 1 - 0503404808	00006941	MB	2,729,091	595,759
INAC-LED	308 - Barren Lands - 06458 - BROCHET 197 - 0504323609	00007651	MB	64,267	50,000
INAC-LED	316 - Dauphin River - 06437 - DAUPHIN RIVER 48A - 4000040000	00006803	MB	93,050	5,250
INAC-LED	317 - Northlands - 06468 - LAC BROCHET 197A - 0502590505	00005697	MB	1,654,044	355,585
INAC-LED	317 - Northlands - 06468 - LAC BROCHET 197A - 4000018896	05310001	MB	972,648	318,788
INAC-LED	433 - Chiniki - 06642 - STONEY 142-143-144 - 6000004094	05131002	AB	42,500	8,750
INAC-LED	433 - Chiniki - 06642 - STONEY 142-143-144 - 6000033600	05131001	AB	15,000	6,300
INAC-LED	462 - Saddle Lake Cree Nation - 06703 - WHITE FISH LAKE 128 - 0703415008	00006947	AB	24,000	1,270
INAC-LED	502 - Liard First Nation - 08433 - LIARD RIVER 3 - 0801946205	05210004	YT	58,925	0
INAC-LED	534 - Hagwilget Village - 06786 - HAGWILGET 1 - BC04790210	00007869	BC	18,530	3,270
INAC-LED	540 - Kitasoo - 07886 - KITASOO 1 - BC04825611	00008201	BC	948,000	168,000

Custodian	Site Name	Federal Site Identifier	Province/ Territory	FCSAP Remediation Expenditures ($)	Custodian Expenditures ($)
INAC-LED	540 - Kitasoo - 07886 - KITASOO 1 - BC04826011	00008209	BC	416,000	101,098
INAC-LED	554 - Tla'amin Nation - 07961 - SLIAMMON 1 - 7000055295	05379001	BC	175,275	0
INAC-LED	555 - Squamish - 00009 - KITSILANO NO. 6 - 0901112102	00006889	BC	62,000	0
INAC-LED	555 - Squamish - 07967 - MISSION 1 - 0902170705	00000518	BC	107,057	0
INAC-LED	555 - Squamish - 07967 - MISSION NO. 1 - 7000036094	05063002	BC	63,650	0
INAC-LED	555 - Squamish - 07968 - SEYMOUR CREEK 2 - 7000035894	05088001	BC	172,000	0
INAC-LED	555 - Squamish - 07968 - SEYMOUR CREEK 2 / 0904441709	00007686	BC	157,350	0
INAC-LED	555 - Squamish - 07968 - SEYMOUR CREEK 2 / 7000073096	05088012	BC	148,675	0
INAC-LED	555 - Squamish - 07969 - CAPILANO 5 - 0902168505	00000517	BC	90,600	0
INAC-LED	564 - Kwantlen First Nation - 08029 - WHONNOCK 1 - BC04791810	00008251	BC	1,850,000	326,300
INAC-LED	564 - Kwantlen First Nation - 08033 - LANGLEY 5 - BC04790410	00008206	BC	205,000	37,000
INAC-LED	567 - Samahquam - 08041 - Q'ALATKU7EM - 0903408808	00006943	BC	5,017	0
INAC-LED	567 - Samahquam - 08041 - Q'ALATKU7EM - 0904329909	00007654	BC	5,017	0
INAC-LED	567 - Samahquam - 08041 - Q'ALATKU7EM - BC04793410	00007904	BC	5,017	0
INAC-LED	613 - Stellat'en First Nation - 07527 - STELLAQUO (STELLA) 1 - 7000113698	05099008	BC	18,000	0
INAC-LED	622 - Campbell River - 06961 - HOMAYNO 2 - 7000069796	05038001	BC	1,444,000	254,709
INAC-LED	636 - Dzawada'enuxw First Nation - 07102 - QUAEE 7 - BC04862115	00025910	BC	1,836,606	0
INAC-LED	642 - Cowichan - 06799 - COWICHAN 1 - 0904005608	00007378	BC	48,936	23,364
INAC-LED	642 - Cowichan - 06799 - COWICHAN 1 - 0904511609	00007722	BC	35,100	7,950
INAC-LED	642 - Cowichan - 06799 - COWICHAN 1 - 0904513609	00007724	BC	54,000	13,645

Custodian	Site Name	Federal Site Identifier	Province/ Territory	FCSAP Remediation Expenditures ($)	Custodian Expenditures ($)
INAC-LED	642 - Cowichan - 06799 - COWICHAN 1 - 7000127498	00000446	BC	17,500	3,100
INAC-LED	642 - Cowichan - 06799 - COWICHAN 1 - BC04876317	00026012	BC	209,569	11,900
INAC-LED	648 - Snuneymuxw First Nation - 06817 - NANAIMO RIVER 3 - 0903801608	00007210	BC	630,109	92,791
INAC-LED	670 - Skidegate - 07690 - SKIDEGATE 1 - 0903263007	00006895	BC	151,480	0
INAC-LED	674 - Lax Kw'alaams - 07770 - LAX KW'ALAAMS 1 - 0904391809	00007677	BC	824,245	0
INAC-LED	675 - Gitga'at First Nation - 07846 - KULKAYU (HARTLEY BAY) 4 - BC04845213	19118090	BC	277,386	0
INAC-LED	675 - Gitga'at First Nation - 07847 - KULKAYU (HARTLEY BAY) 4A - BC04846613	00025829	BC	30,000	0
INAC-LED	688 - Tk'emlúps te Secwépemc - 07173 - KAMLOOPS 1 - BC04879817	00026493	BC	190,440	0
INAC-LED	725 - Wet'suwet'en First Nation - 07455 - PALLING 1 - 7000130000	05073001	BC	17,800	0
INAC-NAO	Arctic Gold and Silver	C2506001	YT	146,595	25,870
INAC-NAO	BAF 5 - Resolution Island	C1017001	NU	568,980	100,408
INAC-NAO	Bathurst Island - Bent Horn (Cameron Island)	00024167	NU	43,797	7,729
INAC-NAO	Bathurst Island - Île Vanier	00000282	NU	126,782	22,373
INAC-NAO	Beaulieu Mine (John Lake; Brandy; Irene; Norma; Tungsten and Gold Mines Limited)	00023544	NT	471,040	83,125
INAC-NAO	Blanchet Island Mine (HRL Claims)	00000402	NT	144,949	25,579
INAC-NAO	Bullmoose Lake Mine (formerly Mann Lake)	00000068	NT	1,486,370	262,301
INAC-NAO	Burnt Island (Ardogo, Good Hope, Goo, Giant Bay, Gordon Lake)	00023547	NT	111,493	19,675
INAC-NAO	CAM C - Matheson Point	C1001001	NU	236,102	41,665
INAC-NAO	CAM E - Keith Bay	C1003001	NU	3,561,539	628,507
INAC-NAO	Camlaren Mine (Hump Vein)	00000162	NT	891,940	157,401

Custodian	Site Name	Federal Site Identifier	Province/ Territory	FCSAP Remediation Expenditures ($)	Custodian Expenditures ($)
INAC-NAO	Canol Trail - Mile 108 - Pump Station #4	00024274	NT	119,262	91,564
INAC-NAO	Canol Trail - Mile 131 - Maintenance Camp - Twitya River	00024288	NT	126,496	84,330
INAC-NAO	Canol Trail - Mile 131.3 - Pipeline Oil Spill Site	00024287	NT	126,496	84,330
INAC-NAO	Canol Trail - Mile 160 - Drum Cache	00024278	NT	126,496	84,330
INAC-NAO	Cantung Mine (Canada Tungsten Mine, Tungsten Mine)	00000154	NT	5,697,409	1,005,425
INAC-NAO	Cape Dorset 2 (Nottingham Island)	00000311	NU	3,064,865	540,858
INAC-NAO	Chipp Lake Mine (Cliff Lake, Eileen)	00023777	NT	316,498	55,853
INAC-NAO	Clinton Creek	C1052001	YT	4,018,500	709,147
INAC-NAO	Colomac Mine (Baton Lake, Indin Lake, Goldcrest, Grizzly Bear)	C1047001	NT	1,438,537	0
INAC-NAO	Contact Lake Mine (International Uranium, M Group, Sam, Kayo)	C1051001	NT	25,315	4,467
INAC-NAO	Drake Point - Sabine Peninsula/ Melville Island	00000244	NU	63,662	11,235
INAC-NAO	El Bonanza Mine (Bonanza East, Bonanza Vein, Spud Vein)	00000076	NT	18,459	3,258
INAC-NAO	Faro Mine	C2503001	YT	32,687,941	0
INAC-NAO	FOX D - Kivitoo	C1021001	NU	2,734,005	482,471
INAC-NAO	Giant Mine (Giant Yellowknife Mines; Royal Oak Mines; A, B & C Shafts)	C1048001	NT	40,305,968	0
INAC-NAO	Goodrock Mine (Gordon Lake)	00000351	NT	111,493	19,675
INAC-NAO	High Arctic - Dale Payne	00000400	NU	62,808	11,084
INAC-NAO	Hottah-Beaverlodge Lakes	00000842	NT	23,733	4,188
INAC-NAO	Indore Gold Mine/Hottah Lake (Pitch 8)	C1026001	NT	39,556	6,980
INAC-NAO	Jericho Diamond Mine	00025586	NU	323,118	92,130
INAC-NAO	Joon Mine (Campbell Lake, June Mine, Strike Lake)	00000405	NT	461,882	81,509
INAC-NAO	Ketza River	C2504001	YT	122,855	21,680
INAC-NAO	Knight Bay (Kidney Pond)	00024120	NT	668,954	118,051

Custodian	Site Name	Federal Site Identifier	Province/ Territory	FCSAP Remediation Expenditures ($)	Custodian Expenditures ($)
INAC-NAO	Lougheed Island (L1)	00000288	NU	52,554	9,274
INAC-NAO	Mount Nansen Mine	C2505001	YT	2,643,361	466,475
INAC-NAO	Outpost Island	C1038001	NT	217,425	38,369
INAC-NAO	Padloping Island	C1016001	NU	88,931	15,694
INAC-NAO	Rayrock Mine (Rob Group; M.M. Group; Island 2; Beta)	C1031001	NT	981,513	173,208
INAC-NAO	Rea Point (1) / Melville Island	00000231	NU	39,361	6,946
INAC-NAO	Romulus - Panarctic C-42 Well Site	00024258	NU	41,124	7,257
INAC-NAO	Ruth Gold Mine	C1033001	NT	1,275,212	225,037
INAC-NAO	Sawmill Bay / Great Bear Lake	00000403	NT	73,839	13,030
INAC-NAO	Spectrum Lake (AA/BB, Benventum)	00023964	NT	1,420,536	250,683
INAC-NAO	Storm Mine (Consolation Lake 2)	00023548	NT	247,215	43,626
INAC-NAO	Terra #1 (North Mine, Silver Bear Properties)	C1010001	NT	2,024,212	357,214
INAC-NAO	Terra #2 (Northrim Mine, Silver Bear Properties, Silver Bay, White Eagle)	C1011001	NT	195,143	34,437
INAC-NAO	Terra #3 (Norex Mine, Silver Bear Properties, Caeser Silver)	C1012001	NT	168,246	29,690
INAC-NAO	Terra #4 (Smallwood Mine, Silver Bear Properties)	C1013001	NT	68,564	12,099
INAC-NAO	Thor Island / Panarctic Oils / H-28 Well	00000230	NU	38,561	6,805
INAC-NAO	Tundra-Taurcanis Mine (Bulldog Yellowknife Gold Mines, Tamcanis Mines Limited, Tundra Gold Mines)	C1035001	NT	13,479,064	0
INAC-NAO	United Keno Hill Mine	C2509001	YT	3,840,159	0
INAC-NAO	Venus Tailings/Mill Site	C2507001	YT	129,860	22,917
INAC-NAO	West Bay Mine (Black Ridge)(DAF)(MQ)	C1037001	NT	334,478	59,025
JCCBI	Parcel 1	00000903	QC	12,177,691	2,149,005
JCCBI	Parcel 3	00002327	QC	2,359,526	416,386
NCC	16 Tauvette Street	00022835	ON	97,509	0

Custodian	Site Name	Federal Site Identifier	Province/ Territory	FCSAP Remediation Expenditures ($)	Custodian Expenditures ($)
NCC	Bank Street / Highway 31 at Leitrim Road	00022833	ON	4,830	0
NCC	Bayview	00022831	ON	95,611	16,872
NCC	Highway 31	00026457	ON	50,990	0
NCC	Hurdman North	00022822	ON	3,278	579
NCC	Hurdman North	00023352	ON	5,960	1,051
NCC	Kingsview Park, Ottawa	00023326	ON	218,563	38,570
NCC	Leamy Lake - boul. Fournier	00023327	QC	42,232	0
NCC	LeBreton East	00023316	ON	111,405	19,660
NCC	Pine Grove, Ottawa	00023325	ON	79,142	0
NCC	Ridge Road Former Landfill	00000001	ON	91,369	16,124
NRC	Institute for Marine Biosciences, Sandy Cove	00025797	NS	18,000	521
NRC	Institute for Research in Construction, Carleton Place	00025803	ON	53,000	1,008,531
NRCan	555 Booth Street	58475001	ON	225,567	770
PCA	A1 Waste Transfer Station	15412001	AB	11,622	8,012
PCA	A7 Pyramid Bench	15412007	AB	7,848	243
PCA	A13 Sleepy Hollow Road / Waste Disposal Site	15412012	AB	16,800	364
PCA	A14 Woodlot Landfill	15412013	AB	7,524	243
PCA	Abandoned Light Station	00023460	BC	6,746	8,598
PCA	Active Pass	00023457	BC	313	2,725
PCA	Administration Area Sewage Lagoon	15457006	AB	104,064	3,044
PCA	C1 JNP Maintenance Compound	15412016	AB	8,122	243
PCA	C2 JNP Tangle Creek Compound	15412017	AB	8,943	4,280
PCA	Cascade Landfill	15404013	AB	97,258	3,052
PCA	Castel Bay: abandoned oil well site (Well C-68)	00012854	NT	33,600	0
PCA	Creek at Bennett Lake	56505001	BC	9,956	6,970

Custodian	Site Name	Federal Site Identifier	Province/ Territory	FCSAP Remediation Expenditures ($)	Custodian Expenditures ($)
PCA	D26 Little Lake to Rice Lake	09731004	ON	63,420	0
PCA	Dalvay Compound - Chemical Storage Building	02087002	PE	92,988	0
PCA	Former Shed and Boat House	00023459	BC	965	3,418
PCA	Fort Conger Historic Site	00008328	NU	11,812	3,667
PCA	Garage	20106005	YT	234,399	8,276
PCA	Garden River Old Dump	15841002	AB	250,243	54,476
PCA	Harriet Harbour	00024667	BC	44,330	8,348
PCA	Hay Camp	15841001	AB	24,080	22,573
PCA	Illecillewaet Campground: Campsite #30	00024128	BC	12,830	5,365
PCA	Jasper National Park, C3 Townsite Block S Site	15412018	AB	16,800	364
PCA	Kingston Inner Harbour Marsh	00023391	ON	39,646	0
PCA	Kusrhaak: abandoned oil well site (Well D-16)	00012855	NT	43,008	0
PCA	Maintenance Compound	10667002	ON	52,849	8,284
PCA	McLean's Point	17800008	BC	662,783	3,924
PCA	Mt. Fidelity	18753001	BC	6,270	0
PCA	Recreational Area Sewage Lagoon	15457005	AB	104,064	3,044
PCA	Red Bay (Fuel Drum Storage)	01775003	NL	7,157	0
PCA	Red Bay (Fuel Storage Tank and Old Oil Dump)	01775002	NL	7,157	0
PCA	Red Bay (Principal Light Keeper's Residence)	01775001	NL	7,157	0
PCA	Rogers Pass Maintenance Compound	18752001	BC	8,224	18,024
PCA	Russell Island Homestead	00024299	BC	899	5,569
PCA	Site 03.1	06959019	QC	29,539	5,213
PCA	Site 13.3	06959007	QC	18,700	3,300
PCA	Site 13.5	06959034	QC	18,000	0
PCA	Site 13.6	06959009	QC	7,999	1,250

Custodian	Site Name	Federal Site Identifier	Province/ Territory	FCSAP Remediation Expenditures ($)	Custodian Expenditures ($)
PCA	Site 13.7	06959082	QC	7,999	1,250
PCA	Site 13.8	06959010	QC	18,000	0
PCA	Site 13.9	06959011	QC	7,999	1,250
PCA	Site 13.10	06959076	QC	7,999	1,250
PCA	Site 14.3	06959084	QC	49,130	8,651
PCA	Waste Disposal Midden (East)	56488005	AB	47,946	5,173
PCA	Waste Disposal Midden (West)	56488004	AB	47,946	0
PSPC	Alaska Highway - 202 Road NWSC Maintenance Camp K-19	09401180	BC	504,275	89,354
PSPC	Alaska Highway - Fireside Maintenance Camp	09401080	BC	3,298,750	592,039
PSPC	Alaska Highway - Former Construction Camp (Current contractor storage yard) T-17	09401310	BC	222,739	0
PSPC	Alaska Highway - Former Construction Camp and Dump (Historic Mile 402) U-27	09401320	BC	236,713	0
PSPC	Alaska Highway - Former Construction Camp and Dump U-02	09401290	BC	277,701	0
PSPC	Alaska Highway - Former Construction Camp S-18/S-19	09401300	BC	267,130	0
PSPC	Alaska Highway - Former Kledo Creek Bridge Construction Camp R-01	09401280	BC	242,694	0
PSPC	Alaska Highway - Former Maintenance Camp I-13B	09401170	BC	158,407	0
PSPC	Alaska Highway - Former Maintenance Camp I-24	09401260	BC	228,870	0
PSPC	Alaska Highway - Former Military Establishment (Ft. Nelson Rec Centre) P-08I	09401270	BC	214,953	38,048
PSPC	Alaska Highway - Fort Nelson Gravel Pit	09401030	BC	136,135	24,145
PSPC	Alaska Highway - Iron Creek Maintenance Camp	09401090	YT	244,220	43,429
PSPC	Alaska Highway - Liard Maintenance Camp	09401070	BC	183,665	32,637

Custodian	Site Name	Federal Site Identifier	Province/ Territory	FCSAP Remediation Expenditures ($)	Custodian Expenditures ($)
PSPC	Alaska Highway - Mason Lake Dump J-06	09401230	BC	235,039	0
PSPC	Alaska Highway - Muncho Lake Maintenance Camp	09401060	BC	2,718,551	489,644
PSPC	Alaska Highway - ROW adjacent to former fueling station E-15	09401240	BC	260,227	0
PSPC	Alaska Highway - Sikanni Chief NWSC Camp (quarry) I-20	09401220	BC	246,107	0
PSPC	Alaska Highway - Sikanni Maintenance Camp	09401020	BC	3,325,125	589,784
PSPC	Alaska Highway - Steamboat Maintenance Camp	09401040	BC	463,750	82,246
PSPC	Alaska Highway - Swan Lake Dump Site K-12	09401210	BC	197,659	0
PSPC	Alaska Highway - Toad River Maintenance Camp	09401050	BC	2,539,130	481,877
PSPC	Alaska Highway - Wonowon Maintenance Camp	09401010	BC	75,855	12,623
PSPC	Confederation Heights Central Heating Plant	30918001	ON	44,023	0
PSPC	Esquimalt Graving Dock	17410007	BC	21,857,025	0
PSPC	Former Sambault Garbage Dump	20625001	QC	849,861	149,976
PSPC	Former St-Germain Foundry	20624001	QC	1,977,450	348,962
PSPC	Jean Canfield Building	07199001	PE	30,675	0
PSPC	Pinetree Site - Area A	00854002	NL	12,644	0
PSPC	Pinetree Site - Area C	00854004	NL	32,088	0
PSPC	Pinetree Site - Area F	00854007	NL	32,088	0
PSPC	Pinetree Site - Area G	00854008	NL	18,099	0
PSPC	Site 21352001 - Drummond Barrel (1979) Inc.	21352001	QC	799,955	0
PSPC	Taxation Centre	22403001	NL	33,552	0
PSPC	Unused Land (Prophet River)	22208001	BC	935,362	0
PSPC	White Hills	55870001	NL	71,837	0
TC	Active West Apron	N0002019	NL	15,005	0

Custodian	Site Name	Federal Site Identifier	Province/ Territory	FCSAP Remediation Expenditures ($)	Custodian Expenditures ($)
TC	AEC 37 Former UST	00026090	BC	151,072	0
TC	Air Navigation Facility: Flight Service Station	N0126001	SK	72,296	0
TC	Air Terminal Building APEC 20A Parking Lot	20146001	YT	28,815	5,085
TC	Airside Operations and Maintenance Centre	15473005	AB	108,925	19,222
TC	Cambridge Bay Apron	00024301	NU	59,478	10,496
TC	Cornwall Island - various parcels	00022902	ON	66,015	0
TC	CSB Area A	N0002008	NL	173,893	0
TC	Disposal Site 2 and Fire Training Area	00339002	NL	141,484	24,967
TC	Drainage Ditch	00025570	NL	688	0
TC	Dumpsite I (East Dump Site)	17139002	BC	50,000	0
TC	EBS Contaminated Sites	N0025001	BC	213,475	37,672
TC	Esquimalt Harbour Fill Sites	00025820	BC	1,522,916	268,750
TC	Fire Training Area	00967003	NL	7,153	0
TC	Fire Training Area	03875003	NB	13,015	0
TC	Fire Training Area	04086002	NB	8,489	0
TC	Fire Training Area	N0010002	NU	75,387	13,304
TC	Fire Training Area	N0013001	NT	17,963	0
TC	Fire Training Area	N0014002	NT	48,940	8,637
TC	Fire Training Area	N0016002	NT	70,912	0
TC	Fire Training Area	N0017001	NU	29,288	0
TC	Fire Training Area	03057001	NS	29,904	5,277
TC	Fire Training Areas - Former and Historic	N0033001	BC	55,094	9,722
TC	Former Coal Storage Location	00967021	NL	8,175	0
TC	Former Gas Station Site	00967016	NL	70,487	12,439
TC	Former H3 hangar and surroundings	05428003	QC	956,535	0
TC	Former Tenant Air Fuelling Facility - APEC 6	20146003	YT	254,912	44,984

Custodian	Site Name	Federal Site Identifier	Province/ Territory	FCSAP Remediation Expenditures ($)	Custodian Expenditures ($)
TC	Former USTs (Maintenance Garage and Hangar) - APEC 6	N0281008	YT	799,469	141,083
TC	Fuel Contaminated Site	00967043	NL	5,824	1,028
TC	Fuelling site number 3	00022903	QC	29,823	0
TC	Gloucester Landfill	08708013	ON	517,378	0
TC	Historic Military Base West of Runways - APEC 20C	00024670	YT	1,274,560	224,922
TC	Inner Harbour	22905009	ON	47,459	8,375
TC	Landfill / Scrap Metal Dump	N0015006	NU	238,000	0
TC	London Airport - Former Firefighting Training Areas	10855002	ON	102,520	18,092
TC	Lot 2A: Middle Harbour Fill Site; Harbour Floor	17348003	BC	1,606,333	283,470
TC	Lot 6A: Barclay Point; Rock Bay East Fill; Rock Bay North Fill; Bay Street East Fill; J-15 Bay Street Centre Fill; J-16 Bay Street	17348008	BC	785,426	138,605
TC	Lot 17: Victoria Harbour Floor; Point Ellice (Bay Street); Johnson Street; Point Ellice (Bay Street); East Selkirk; Macaulay	17348020	BC	86,700	15,300
TC	Maintenance Area (Bennery Brook)	03057011	NS	17,662	0
TC	Marine Fire Training Area	00339015	NL	28,725	5,069
TC	Nitchequon	N0285001	QC	80,978	14,291
TC	Norman Wells Taxiway C	00024131	NT	15,714	2,774
TC	North Side Property - All Areas	01831002	NL	80,000	0
TC	Old ANS Property - Radio Site	00024802	NL	135,458	0
TC	Old Dump Site - APEC 8	N0281005	YT	496,479	0
TC	Old Fire Training Area	04363001	NB	2,399	0
TC	Old Fire Training Area	N0002001	NL	88,141	0
TC	Old Fort Wharf - sediments	00022907	QC	858,285	0
TC	Old Landfill / Main Drum Cache	N0017003	NU	19,333	3,411
TC	Otter Creek Former Landfill/ Asphalt Plant	01831001	NL	11,050	1,950

Custodian	Site Name	Federal Site Identifier	Province/ Territory	FCSAP Remediation Expenditures ($)	Custodian Expenditures ($)
TC	Parcels in the Village of Kuujjuaq	08389003	QC	170,140	30,025
TC	Port aux Basques Ferry Terminal	00723001	NL	11,460	0
TC	Port Colborne - Marine Emergency Duties Training Centre	06700001	ON	38,482	0
TC	Port Stanley - Land Lots	10611002	ON	1,807,064	318,894
TC	Real Property	03765001	NS	11,460	0
TC	Reay Creek and Reay Creek Pond	00026091	BC	80,302	0
TC	Regional Fire Depot - APEC 8	20146004	YT	194,941	34,401
TC	Sault Ste. Marie Airport - Former Firefighting Training Area	N0009001	ON	395,973	0
TC	Schefferville NDB	00026082	QC	34,303	0
TC	Sediments - Gaspé wharf	72064003	QC	2,166,418	382,310
TC	St-Lambert	00026088	QC	14,719	0
TC	Stephenville Sanitary Sewer Line	N0002020	NL	97,939	0
TC	Tenant-Owned Petro-Refuelling Site - APEC 10	N0281011	YT	34,488	0
TC	Thunder Bay International Airport - Former Firefighting Training Area	11943001	ON	193,545	34,155
TC	Uplands and waterlot	14886001	SK	124,585	21,986
TC	Waste Disposal Site	00967001	NL	59,965	0
TC	Waste Disposal Site	00967004	NL	59,965	0
TC	Waste Material and Barrel Site	00967005	NL	18,734	0
TC	Zone 1 & 2 Area North of Graving Dock	N0090002	NL	12,000	0
VIA Rail	Edmonton VIA Rail Station	00026430	AB	121,294	0

APPENDIX D

Environmental Liability for Federal Contaminated Sites

ENVIRONMENTAL LIABILITY FOR FEDERAL CONTAMINATED SITES

Environmental liabilities are the estimated costs related to the remediation or risk management of contaminated sites for which the Government of Canada is obligated, or will likely be obligated, to incur costs. A contingent liability is disclosed when the Government's obligation to a contaminated site is unknown and where future events are expected to resolve the uncertainty. Recording environmental liability is a requirement found in the Treasury Board Directive on Contingencies; liabilities are reported annually in the Public Accounts of Canada.

According to Treasury Board of Canada Secretariat guidance, a liability for remediation of contaminated sites should be recognized when, at the financial reporting date, the following applies:

- an environmental standard exists;
- contamination exceeds the environmental standard;
- the Government:
    - owns the land;
    - is directly responsible; or
    - accepts responsibility (e.g., when there is little, if any, discretion to avoid the obligation);
- it is expected that future economic benefits will be given up; and
- a reasonable estimate of the amount can be made.

An obligation for remediation or risk management of contaminated sites cannot be recognized as a liability unless all these criteria are satisfied.

A statistical model was developed to estimate the liability for a group of unassessed sites on the basis of projections using historical costs at similar types of sites. In 2016–2017, there were 4,100 unassessed sites for which a total liability estimate of $239 million has been recorded prospectively in the Public Accounts of Canada.

Table D.1: Adjusted total environmental liability for contaminated sites (2016–2017)

	March 31, 2016 ($)	March 31, 2017 ($)	Difference ($)
Total liability for remediation of contaminated sites[a]	6,242,884,587	5,917,072,573	-325,812,014
Less:			
Atomic Energy of Canada Limited	1,109,493,000	1,081,866,000	-27,627,000
Canada Border Services Agency	1,183,764	1,165,597	-18,167
Canadian Broadcasting Corporation	343,000	390,000	47,000
Federal Bridge Corporation Limited	1,420,000	890,000	-530,000
Global Affairs Canada	15,000	15,000	0
Health Canada	172,705	100,790	-71,915
Marine Atlantic Inc.	377,000	0	-377,000
Royal Canadian Mounted Police	6,419,203	9,134,394	2,715,191
Windsor-Detroit Bridge Authority	0	5,840,000	5,840,000
Expected recoveries[b]	30,681,572	27,441,114	-3,240,458
Adjusted total liability for contaminated sites	**5,154,142,487**	**4,845,111,906**	**-309,030,581**

[a] Total liability for remediation of contaminated sites, as reported in the Public Accounts of Canada, 2017.

[b] An expected recovery is reported when it is likely that a recovery will be received by the Crown and a reasonable estimate of the amount of the recovery can be made.

Table D.2: Adjusted total environmental liability for contaminated sites, by participating custodian (2016–2017)

	March 31, 2016 ($)	March 31, 2017 ($)	Difference ($)
Agriculture and Agri-Food Canada	4,836,741	3,423,088	-1,413,653
Correctional Service of Canada	1,708,685	3,160,429	1,451,744
Environment and Climate Change Canada	141,417,724	195,602,662	54,184,938
Fisheries and Oceans Canada	108,219,424	112,154,402	3,934,978
Indigenous and Northern Affairs Canada	3,795,691,347	3,421,838,583	-373,852,764
Jacques Cartier and Champlain Bridges Incorporated	43,170,000	46,675,000	3,505,000
National Defence	519,370,599	536,639,813	17,269,214
National Capital Commission	50,345,000	50,831,000	486,000
National Research Council of Canada	240,832	2,718,164	2,477,332
Natural Resources Canada	4,614,482	4,907,906	293,424
Parks Canada Agency	37,236,526	50,638,172	13,401,646
Public Services and Procurement Canada	258,591,282	217,809,560	-40,781,722
Transport Canada	188,399,845	198,378,127	9,978,282
VIA Rail Canada Inc.	300,000	335,000	35,000
Total	**5,154,142,487**	**4,845,111,906**	**-309,030,581**

Table D.3: Changes in total liability for remediation of contaminated sites (2016–2017)

	March 31, 2016 ($)	March 31, 2017 ($)	Difference ($)
Opening balance	5,810,439,124	6,273,566,159	463,127,035
Less: expenditures reducing opening liabilities	298,932,567	414,126,248	115,193,681
Add: changes in estimated remediation costs	544,754,907	42,885,906	-501,869,001
Add: new liability for sites not previously recorded	217,304,695	42,187,870	-175,116,825
Closing balance (gross)	6,273,566,159	5,944,513,687	-329,052,472
Expected recoveries	30,681,572	27,441,114	-3,240,458
Closing balance (net)	**6,242,884,587**	**5,917,072,573**	**-325,812,014**

Source: Public Accounts of Canada, 2017