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Horizontal Evaluation of the Federal Contaminated Sites Action Plan (FCSAP) 2018-2019 to 2021-2022

Final report

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As of the date of publication, the present document has been verified for accessibility.

If you have any questions about this document, please contact us at: audit-evaluation@ec.gc.ca

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List of Acronyms and Abbreviations

ADM Board	Assistant Deputy Minister Oversight Board
CIRNAC	Crown-Indigenous Relations and Northern Affairs Canada
DFO	Fisheries and Oceans Canada
DG Committee	Director General Advisory Committee
ECCC	Environment and Climate Change Canada
ESDs	Expert Support Departments
FCSAP	Federal Contaminated Sites Action Plan
G&Cs	Grants & Contributions
HC	Health Canada
HI	Horizontal Initiative
ISC	Indigenous Services Canada
NPTWG	National Planning and Tracking Working Group
PC	Program Commitment
PFAS	Per- and Polyfluoroalkyl Substances
PIs	Performance Indicators
PSPC	Public Services and Procurement Canada
R/RM	Remediation/Risk Management
RIPBs	Regional Integrated Planning Boards
TBS	Treasury Board Secretariat

1 Introduction

This report presents the results of the Horizontal Evaluation of the Federal Contaminated Sites Action Plan (FCSAP). This evaluation covers a four-year period from 2018-2019 to 2021-2022 under the following themes:

- Governance and reporting;
- Performance;
- External and emerging issues; and
- Impact on Indigenous Peoples and communities.

The evaluation was undertaken in accordance with Environment and Climate Change Canada's (ECCC) Audit and Evaluation Plan 2022 to 2027.

1.1 Program overview

Since its inception, the primary objective of the FCSAP[1] program has been to reduce environmental and human health risks from known federal contaminated sites and associated federal environmental liabilities. FCSAP aims to address the federal contaminated sites that pose the highest risks to human health and the environment, through remediation / risk management (R / RM).[2] It does this by providing funding to federal departments, agencies and consolidated Crown corporations to undertake assessment and remediation activities on contaminated sites for which they are responsible. FCSAP provides funding for assessment, risk-reduction, and program management activities. Based on priorities and funding availability, federal custodians' planned assessment and risk-reduction activities determine how the program allocates funding at the start of each phase.

Program partners include custodians, the FCSAP Secretariat (within ECCC), the Treasury Board of Canada Secretariat (TBS), and Expert Support Departments (ESDs). The FCSAP Secretariat, with support from the TBS, provides program-wide administration and oversight, and related guidance and support to custodians, while ESDs provide expert advice and technical assistance to custodians, develop guidance documents, deliver training, and promote

[1] More information about FCSAP is available on the Government of Canada's "Contaminated sites" webpage.
[2] ECCC (July 2021). Performance Measurement Strategy, FCSAP Phase IV.

innovative and sustainable remediation technologies. Governance committees and working groups provide strategic oversight, direction, and planning functions. A list of current FCSAP participants can be found in Appendix D.

FCSAP was established in 2005 as a fifteen-year program with funding of $4.54 billion from the Government of Canada. The program was renewed for an additional 15 years (2020 to 2034) with $1.16 billion announced in Budget 2019 for the first five years (Phase IV, 2020 to 2024). The following table presents an overview of FCSAP Phases and key milestones.

Table 1: FCSAP Phases, key milestones and areas of focus[3][4]

Phase I: 2005-2006 to 2010-2011
• Federal government launches FCSAP with $1.60 billion for Phase I. • Budget 2009 commits $80.5 million in new funding over two years for program management and assessment activities. • Custodians made progress in addressing contamination.
Phase II: 2011–2012 to 2015–2016
• Budget 2011 commits $148.9 million in new funding for program management and assessment activities for a total of $1.38 billion over five years for FCSAP Phase II. • Key areas of focus included determining what federal sites were contaminated, prioritizing federal contaminated sites, advancing remediation of the highest-priority sites.

[3] ECCC (2024). Federal Contaminated Sites Action Plan: Annual Report 2021-2022.
[4] History of federal contaminated sites Webpage.

Phase III: 2016–2017 to 2019–2020
• Budget 2015 commits $99.6 million in new funding over four years for program management and assessment activities for a total of $1.35 billion over four years for FCSAP Phase III. • Budget 2016 commits $216.2 million over two years, starting in 2016, to accelerate the assessment and remediation of federal contaminated sites. • Increased the focus on remediation, reducing the environmental and human-health risks, and reducing the related environmental liabilities.
Phase IV: 2020–2021 to 2024–2025
• The government renews FCSAP for another 15 years (2020 to 2034). Budget 2019 commits $1.16 billion over five years for FCSAP Phase IV • Continues the work of Phase III, with expanded eligibility criteria to address a wider variety of sites affecting Indigenous Peoples.
Phase V: 2025–2026 to 2029–2030
• Phase V is expected to build on successes and continue progress toward FCSAP objectives. • Budget 2024 included funding for FCSAP from 2024-2025 to 2028-2029
Phase VI: 2030–2031 to 2034–2035
• Phase VI is expected to build on successes and continue progress toward FCSAP objectives. • The long-term goal of the program is to have 95% of FCSAP-eligible sites as of March 31, 2020 closed or in long-term monitoring by March 2035.[5]

1.2 About this evaluation

FCSAP has been evaluated three times since its inception. The first evaluation was completed in March 2009, followed by another evaluation completed in February 2014. The most recent evaluation was completed in December 2018. The 2018 evaluation led to significant response from the program, including the development of a new logic model, performance measurement

[5] ECCC (2024). Federal Contaminated Sites Action Plan. Phase IV Handbook. Version 2.0.

strategy, eligibility requirements for some projects, and the establishment of new governance and planning bodies.

In addition to the previous evaluations, the Office of the Auditor General of Canada released an Independent Auditors Report in 2024 focused on Contaminated Sites in the North. The Audit concluded that ECCC has not been able to effectively lead the FCSAP as the program fell short of meeting its Canada-wide objectives. Specifically, the report found that the total environmental liability[6] for known contaminated sites had increased between 2004-2005 and 2022-2023, and that the program did not include realistic targets for climate adaptation and is missing targets for Indigenous engagement and socio-economic benefits to support reconciliation with Indigenous Peoples.[7]

While the scope and approach of the Audit differs from those of this evaluation, consideration was taken to ensure that the recommendations of the evaluation do not conflict with the recommendations made by the Audit.

This evaluation provides an assessment of the design and delivery of FCSAP from 2018-2019 to 2021-2022, which corresponds to the final two years of FCSAP Phase III and the first two years of FCSAP Phase IV. The evaluation focuses on key themes of interest to program stakeholders, including governance and reporting; performance; emerging and external issues; and the impact of the program on Indigenous Peoples and communities, as described in Appendix A – Evaluation Matrix. The following briefly describes the methods used to inform the evaluation. Appendix B provides more details on these methods.

- **Document Review:** Documents and resources housed on the Interdepartmental Data Exchange Application; Reports on plans and priorities; Annual reports and other documents of relevance.
- **Administrative, performance and financial data:** Available performance measurement data; data available from the Federal Contaminated Sites Inventory.
- **Key Informant Interviews:** A total of 31 interviews were conducted with 49 representatives of 17 custodian and ESDs including the FCSAP Secretariat.

[6] 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.

[7] Office of the Auditor General of Canada (2024). Reports of the Commissioner of the Environment and Sustainable Development to the Parliament of Canada. Contaminated Sites in the North.

- **Comparative program analysis:** British Columbia Crown Contaminated Sites Program; US EPA Superfund; Government of New Zealand Contaminated Sites Remediation Fund.
- **Case Studies:** Five case studies focused on the evaluation themes.

The following legend was used throughout the report to indicate the proportion of individuals interviewed that responded in the same manner:

- Few: findings reflect less than 25% of the observations.
- Some/several: findings reflect at least 25% but less than 50% of the observations.
- Half: findings reflect 50% of the observations.
- Majority: findings reflect more than 50% and less than 75% of the observations.
- Most: finding reflect 75% but less than 90% of the observations.
- All/almost all: findings reflect 90% or more of the observations.

2 Findings

2.1 Governance and Reporting

Key findings: FCSAP has a complex governance, oversight, planning and performance measurement structure that has evolved over the evaluation period. These changes have generated positive intended impacts such as greater involvement of senior management and alignment of performance measurement with both the core program objective and additional commitments. However, the broad range of performance indicators (PIs) and program commitments (PCs) have resulted in an increase in administrative burden and potential distractions from core program responsibilities. Despite challenges, the FCSAP Secretariat and the overall management of FCSAP is viewed as strong, especially given the complexity of the program.

FCSAP's governance, oversight, planning and performance measurement structures are complex and have evolved over the evaluation period.[8] In the 2018 Horizontal Program Evaluation, Central Agencies observed a perceived lack of senior management interest in the FCSAP program and an inability to spend all available remediation funding on a yearly basis.[9] Additionally, there was a need and an opportunity to demonstrate how FCSAP contributed to government of Canada and departmental objectives such as those related to climate change, Reconciliation, and Gender-based Analysis Plus.[10] As such, several changes to FCSAP governance, planning and performance measurement activities occurred during the evaluation period. Specifically, a vertical and horizontal approach to collaborative governance was implemented, the roles of the various governance committees were strengthened, and the

[8] A complex governance model is consistent with other contaminated sites programs. The Crown Contaminated Sites Program of the British Columbia Government was reviewed for this evaluation. While significantly smaller than FCSAP (i.e. expenditures of approximately $11.5 million annually), the program also has a complex governance and operational model involving a Secretariat comprised of representatives from 8 provincial government ministries responsible for the management of contaminated and potentially contaminated sites.

[9] ECCC (July 2021). Performance Measurement Strategy, FCSAP Phase IV.

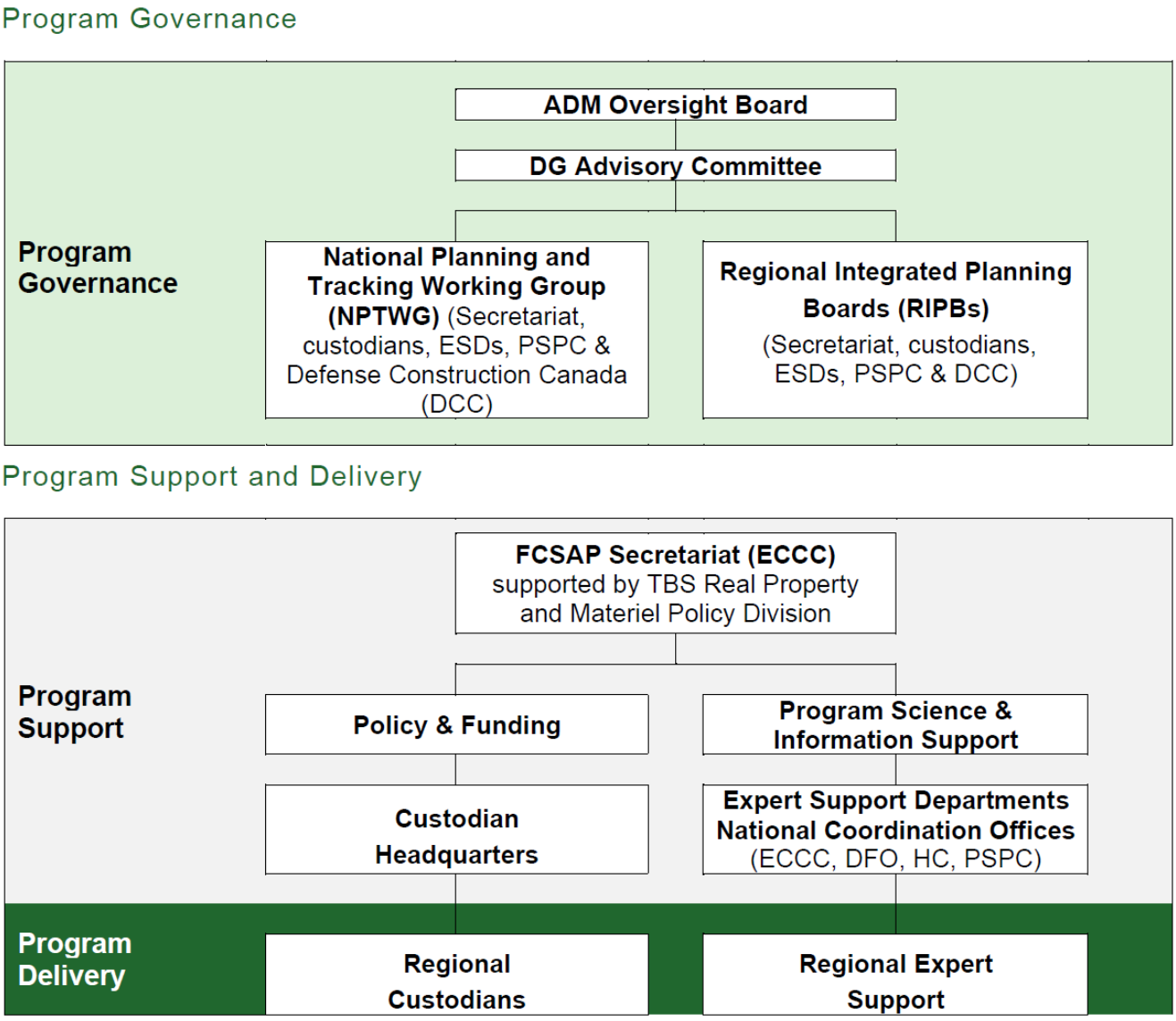
[10] For example, the 2021 Minister of the Environment and Climate Change Canada Mandate Letter included a commitment to "identify, and prioritize the clean-up of, contaminated sites in areas where Indigenous Peoples, racialized and low- income Canadians live."

FCSAP logic model (Appendix C) and performance measurement strategy was updated for Phase IV to include expanded PIs and PCs.[11]

The FCSAP Program is divided into three overall functional groupings based on specific roles and responsibilities: Program Governance, Program Support and Program Delivery.[12] The changes focused on in this evaluation are within the program governance grouping, specifically the FCSAP Assistant Deputy Minister (ADM) Oversight Board, FCSAP Director General (DG) Advisory Committee, National Planning and Tracking Working Group (NPTWG), and the Regional Integrated Planning Boards (RIPBs).

[11] ECCC (July 2021). Performance Measurement Strategy, FCSAP Phase IV.
[12] ECCC. (2024). Federal Contaminated Sites Action Plan. Phase IV Handbook. Version 2.0.

Figure 1: FCSAP Program Structure



Source: Federal Contaminated Sites Action Plan. Phase IV Handbook. Version 2.0.

The ADM Oversight Board focuses on planning and tracking program results throughout the year, and on mitigating strategic and financial risks to achieve program objectives. The DG Advisory Committee provides oversight and direction on the overall operations of the FCSAP program and offers strategic decision-making to ensure efficient and effective program-wide planning and results delivery.[13]

[13] *Ibidem*

Some (n=8) key informants indicated that changes in Phase IV have led to fewer instances when ADMs and DGs had to delegate attendance to others. An overall greater level of engagement by senior management. Many (n=14) of those who stated that they could comment on the functioning of these bodies indicated that their scopes are complimentary. They added that they were working well with the DG Advisory Committee who were in charge of conducting substantive work and discussions before escalating items for decision by the ADM Oversight Board. However, other interviewees (n=9) have observed ongoing challenges related to the functioning of the two bodies. Despite increased participation, delegating meeting attendance downwards still occurs, particularly among custodian departments with smaller portfolios. A few (n=4) custodians report that their staff face additional administrative burdens and occasionally duplicated information requests to satisfy the needs of the two bodies. A small number (n=2) noted that they have organizational structures different from federal departments which can further exacerbate the problem.

RIPBs exist in each of six regions[14], and are comprised of representatives of the custodian and ESDs who perform operational or intermediate management functions in each of six regions, as well as representatives from the FCSAP Secretariat and Defence Construction Canada.[15] Some (n=9) interviewees noted that RIPBs have been successful in sharing information and best practices at the regional level. However, a few mentioned that the meetings can be time consuming (n=6) and sometimes lack information that is relevant to all meeting participants (n=5). A few interviewees (n=3) provided examples of financial or administrative topics being discussed that seemed better suited for other venues or one-on-one conversations.

NPTWG was created in the final year covered by the evaluation (2021-2022). Many of the tasks currently performed by the NPTWG were previously assigned to the RIPBs at the start of Phase IV; however, RIPB custodians voiced concerns over the effectiveness of the reporting and planning processes at the regional level. The NPTWG was thus created in the second year of FCSAP Phase IV to improve program-wide work planning, tracking and contaminated-site inventory management to maximize in-year spending, increase the number of closed sites, and improve the overall performance of the program.[16]

While not all interviewees have been involved with the NPTWG, several (n=6) were able to comment on the group, noting that it has filled an important gap and supports program-level planning activities. The FCSAP Secretariat uses the NPTWG and RIPBs to disseminate information, to communicate with stakeholders or to seek input and advice. Some individuals

[14] The six RIPB regions are: North, Pacific, Prairies, Québec, Ontario, and Atlantic.
[15] ECCC. (2024). Federal Contaminated Sites Action Plan. Phase IV Handbook. Version 2.0.
[16] ECCC. (2024). Federal Contaminated Sites Action Plan. Phase IV Handbook. Version 2.0.

overlap between the two groups and experience duplicate information and perceive this as a potential inefficiency. However, many participants do not overlap between the two groups; any overlapping would, therefore, be intentional. A larger issue is the potential for functional overlap such that several custodian stakeholders indicated that the Terms of References and implementation of these bodies should be reviewed and updated if needed.

FCSAP added new PIs and PCs at the start of Phase IV. A total of 14 FCSAP Horizontal Initiative (HI) PIs relate to the main objectives of the FCSAP program, which are to reduce risks to human health and the environment from federal contaminated sites and to reduce the environmental liability associated with these sites.[17] A total of 46 Phase IV PCs were developed based on an in-depth review of the FCSAP Phase IV funding documents. All commitments outlined in those documents that were not incorporated into the HI Framework or that fell outside of the core program objectives of reducing risks to the environment and human health and reducing environmental liability were included as PCs. This includes commitments related to socio-economic benefits, Indigenous Peoples, small/medium enterprises, site level variance, and climate change.[18]

Partners recognize the need to align with broader government priorities and departmental mandates and demonstrate value to central agencies, but the broad range of PIs and PCs increase administrative burden and risk distraction from core program responsibilities. A contaminated sites program based in New Zealand reviewed for this evaluation, the Contaminated Sites Remediation Fund, showed a similar dynamic, as it is mandated by the Cabinet and is required to report to Cabinet annually on its progress. This proximity to central agencies supports the program because it has a high profile and consistent funding, but it makes it more subject to the demands and priorities of the central agencies governing it, with the potential for that to be beyond the core scope of the program's mandate.

Many (n=19) interviewees noted a significant increase in reporting requirements in Phase IV relative to Phase III, although some (n=7) said that there had been no increase in the burden this reporting placed on their department. A few (n=4) interviewees conveyed that the result has been a diversion of resources from program management to reporting compliance; these interviewees noted that a reduction in program management capacity can slow down efforts to bring sites to closure, and that pursuing too many or too wide-ranging PIs can undermine the core focus of FCSAP. Some (n=13) interviewees expressed that FCSAP should streamline the number of indicators to focus on the most critical aspects of program success. They also called for more flexible reporting timelines, and for the program to tell a better story of why the data is

[17] Ibidem
[18] ECCC (July 2021). Performance Measurement Strategy, FCSAP Phase IV.

needed. These changes could improve the views held by custodians about the relevancy and importance of the performance measurement strategy.

Certain PCs were highlighted as more challenging than others to measure or achieve. For example, there are five PCs[19] related to planning for climate change impacts which apply to all custodians and required 100% compliance in the first year of reporting. A few (n=3) interviewees spoke about the lack of guidance provided by FCSAP on how to incorporate climate change planning into FCSAP projects[20], and expressed that it was unreasonable to set the target at 100% in the first year of reporting.

FCSAP projects on reserve lands that are funded through Grants and Contributions (G&Cs) provided by Indigenous Services Canada (ISC) and Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) present other challenges and nuance to FCSAP reporting. The FCSAP Performance Measurement Strategy[21] excludes activities carried out using G&Cs funding from the reporting requirement of a set of PCs focused on impact to Indigenous Peoples and communities[22], which may result in gaps or limitations in the overall reporting of FCSAP outcomes. Regardless, this exclusion results in under-representation of the impact of the work funded by FCSAP, ISC, and CIRNAC through G&Cs as it relates to projects in the North and on reserve lands. For PCs that are not excluded from the reporting requirements, interviews identified concerns regarding the ability of departments to collect accurate data to report on FCSAP.

[19] The five PCs are: (1) Site assessments will include a lens to identify impacts on contaminated sites from a changing climate, e.g., rising sea or water levels in close proximity to a site; (2) R/RM projects will be designed to ensure that they are resilient to climate change; (3) R/RM projects will be required to monitor effectiveness of their climate change risk management measures where risk of climate change impacts is particularly high; (4) Percentage of FCSAP eligible sites completed (Highest Step Completed ≥ 8) in the fiscal year that are found to be at risk of climate change impacts that have included measures in the R/RM project; and, (5) To mitigate the risk of climate change impacts on remediated sites, the strengthened ADM Oversight Board will be assessing strategic risks throughout Phase IV. Strategic assessment will include review of closed sites where climate change may have impacted existing infrastructure.

[20] After the evaluation period, the FCSAP Secretariat provided additional guidance with the document Integrating Climate Change Adaptation Considerations into Federal Contaminated Sites Management (2022).

[21] ECCC (July 2021). Performance Measurement Strategy, FCSAP Phase IV.

[22] These include percentage of total person-hours worked by Indigenous people on FCSAP funded contaminated sites in the North/on Reserve Lands; percentage of total person-hours worked by Indigenous women on FCSAP funded contaminated sites in the North/on Reserve Lands; percentage of total dollar value of contracts and subcontracts/purchases from suppliers for FCSAP funded contaminated sites in the North/on Reserve Lands attributed to Indigenous businesses.

Overall, the FCSAP Secretariat and the overall management of FCSAP is viewed as effective, especially given the complexity of the program. Horizontal initiatives can be difficult to manage due to the involvement of multiple government departments. The FCSAP Secretariat is the hub and catalyst for managing and supporting the enhanced oversight, administration and coordination provided to program partners. FCSAP is viewed as a vital program that provides necessary funding, expertise, and support to manage and remediate contaminated sites across Canada, making significant positive impacts on the environment and communities. Many large and complex sites have been addressed, and significant amounts of assessment and R/RM work has been done that would have not occurred without FCSAP.

2.2 Performance

Key findings: FCSAP has made progress towards its intended targets but has faced challenges, over the evaluation period, to spend its total budget allocation due to issues such as procurement issues / delays, government funding cycles, and short windows for field work in northern settings among others. Fortunately, unspent funds are almost entirely available to custodians in future years.

Reducing overall liabilities to the extent planned has also been challenging for FCSAP. Reduction of environmental liability and future expenditures by Canada is an important objective, but project costs can increase for a variety of reasons and therefore offset the progress made through R/RM activities.

This section focuses on key areas of FCSAP performance as determined by the availability of consistent annual reporting and based on areas of interest determined during the scoping phase of the evaluation. These include assessment activities; project delivery and use of funds; site bundling; site closures; and reduction of environmental liabilities. Following the discussion of these topics there is a brief overview of progress made towards all Phase IV PIs.

2.2.1 Assessment

Assessment activities are on track based on targets for Phase IV. By the end of the evaluation period (2021-2022), 49% of planned Phase IV site assessments had been completed over a two-year period, with three years to complete the remaining 51%, suggesting progress is meeting expectations. It is worth noting that expectations in this instance refers to progress made against planned assessment activities. However, it does not consider the perception of about half of interviewees (n=15). For this portion of interviewees, the funding available for assessment is insufficient, given the amount of remaining assessment work to be completed.

As shown in the following table, each year of the evaluation period saw assessment activities carried out at between 97 and 230 sites, with FCSAP spending on these activities ranging from $2.1 million - $8.1 million. For context, this spending on assessment activities was equal to 3% of total spending on remediation and risk-reduction activities over the same period. As stated above, about half of interviewees (n=16) indicate the need for more assessment funding than what is possible with the current funding that is available. However, the impact of limited assessment funding varies across regions and departments, as other (n=6) interviewees said they have completed all site assessments or feel that the level of assessment funding is appropriate. These interviewees noted that they had made significant progress with past assessment funding during specific periods (e.g., early in FCSAP Phase I and II; Government of Canada economic action plans).

A subset (n=6) of the 16 interviewees who called for greater assessment funding expressed the opinion that decision-makers focus on reducing liabilities at the expense of conducting further assessment. They feel this approach is short-sighted, as understanding the full scope of liabilities is crucial for effective management and reduction of liabilities.

Table 2: Number of sites and cost of assessment activities carried out annually, 2018-2019 to 2021-2022

Fiscal Year	Sites with assessment activities carried out	Cost of assessment activities
2018-2019	230	$7.5M
2019-2020	97	$2.1M
2020-2021	128	$8.1M
2021-2022	121	$5.6M
Total	576	$23.3M
Average	144	$5.8M

Source: FCSAP Annual Reports for 2018-2019, 2019-2020, 2020-2021, and 2021-2022.

2.2.2 Project delivery and use of funds

FCSAP has resulted in significant R/RM work being carried out. As shown in the following table, during an average year in the evaluation period, 524 sites had R/RM activities carried out, with an annual spending on these activities ranging from $160 million to $394 million.

Table 3: Number of sites and cost of remediation/risk management activities conducted annually, 2018-2019 to 2021-2022

Fiscal Year	Sites with R/RM activities carried out	FCSAP cost of R/RM activities
2018-2019	422	$394.1M
2019-2020	388	$358.2M
2020-2021	607	$160.9M
2021-2022	678	$164.7M
Total	2095	$1.08B
Average	524	$269.5M

Source: FCSAP Annual Reports for 2018-2019, 2019-2020, 2020-2021, and 2021-2022.

However, despite spending $1.08 billion on risk reduction and remediation activities during the evaluation period, custodians were unable to spend all funds available to them. In each of the four years covered by the evaluation, total FCSAP expenditures on assessment, remediation and program management were less than the total available funding. In 2018-2019 and 2019-2020, 83% of available funding was spent, increasing slightly to 85% in 2020-2021, before falling to 72% in 2021-2022. Several factors have been identified that limit the ability to spend FCSAP funding as planned. These include procurement issues/delays, government funding cycles, and short windows for field work in northern settings, among others. Fortunately, unspent funds are almost entirely available to custodians in future years as opposed to being lapsed, indicating that appropriate administrative processes are in place to account for this ongoing reality. During the four-year evaluation period, between just 0.1% and 4% of FCSAP annual funding variances were lapsed, representing a very small proportion of total FCSAP funding.

Table 4: Percentage of unspent budget variance by fiscal year

Fiscal Year	Lapsed	Internally Cash Managed	Carried Forward	Reprofiled[23]
2018-2019	0.1%	13%	4%	83%
2019-2020	3%	10%	12%	74%
2020-2021	4%	2%	28%	66%
2021-2022	2%	19%	14%	65%

Source: FCSAP Annual Reports for 2018-2019, 2019-2020, 2020-2021, and 2021-2022.

[23] Reprofiling is a process by which funds, which are expected to lapse, are moved to one or more future fiscal years.

2.2.3 Site bundling

Federal contaminated sites are classified and prioritized based on the National Classification System for Contaminated Sites and the Aquatic Site Classification System. These two systems provide scientific and technical assistance that allows custodians to prioritize their contaminated sites as high ("Class 1", with a score of 70 to 100), medium ("Class 2", with a score of 50 to 69.9), or low risk ("Class 3", with a score of 37 to 49.9), according to their current or potential adverse impacts to human health and/or the environment.[24]

Bundling of sites of various classes was introduced during FCSAP Phase IV to expedite the closure of sites that are within proximity to one another and to increase program and cost efficiencies. New Class 2 and Class 3 sites that were previously ineligible to receive FCSAP funding were permitted to be funded in Phase IV if they were contingency sites or if they were bundled with a Class 1 site or ongoing Class 2 site that would be undergoing assessment or remediation simultaneously.[25] Project bundling is a promising best practice, but according to some interviewees (n=8) its applicability is not wide ranging enough to make a significant difference to FCSAP performance overall. Other interviewees (n=13) expressed the opinion that while a fine idea, the practice may be too difficult to carry out, especially when considering bundles that would involve multiple custodians. Interviewees raised concerns that the increased complexity and difficulty in coordinating amongst multiple departments can generate additional costs that may reduce the expected bundling savings. However, the evaluation found examples, two of which are described below, of successful internal project bundling involving a single custodian's portfolio and bundling that involved the sites of two custodian departments. These cases show that meaningful cost savings and other benefits can be generated through project bundling.

As an example of internal bundling, information provided by the Fisheries and Oceans Canada (DFO) to the evaluation shows they were able to bundle 90 sites in 2021-2022 consisting of low risk (i.e., Class 3) and new Class 2 sites, which otherwise are not eligible under FCSAP Phase IV.[26] In doing so, DFO was able to absorb a FCSAP funding surplus from a separate remediation project. There was no opportunity to bundle with other federal custodians due to a lack of geographically adjacent sites.

An evaluation case study focused on a project bundle organized by PSPC that involved ECCC and Crown-Indigenous Relations and Northern Affairs Canada. The ECCC Isachsen High

[24] Government of Canada. "Funding of contaminated sites" Webpage.
[25] ECCC (2024). Federal Contaminated Sites Action Plan. Phase IV Handbook. Version 2.0.
[26] While outside of the scope of the evaluation period, this approach continued throughout additional years of Phase IV and has resulted in over 400 bundled sites.

Arctic Weather Station was bundled with seven CIRNAC Pioneer High Arctic sites to achieve efficiencies and cost savings for both departments. The bundle was developed through the project planning table at PSPC and involved the contractor tracking costs for each project separately using a single base camp and a single field team to carry out the required activities at both sites. Upon completion of the activities, CIRNAC had saved 46% on the cost of a base camp, and ECCC saved 66% of the camp costs. If each department had done the work separately, the overall costs would have increased by about $500,000.

2.2.4 Site Closures

Sampling and long-term monitoring (if required) are the final steps of a site closing process. These final steps come after R/RM. Closing a site shows that no further action is required by the custodian[27]. It also shows that the custodian has reduced the federal environmental liability to zero[28]. For some sites the most appropriate course of action is to risk-manage contamination, which can involve on-site containment to reduce the potential of exposure for people, plants, and animals. Long-term monitoring may be necessary to ensure that risks remain at acceptable levels.[29]

The number of site closures increased year-over-year during the evaluation period, but more progress is needed to meet the target for Phase IV. For example, while in 2019-2020 a total of 78 sites were closed, the first two years of Phase IV saw 142 sites close and another 138 in long-term monitoring. While this is progress, as indicated earlier, the rate will need to increase to achieve the Phase IV target of 1,159 sites closed or in long-term monitoring.

Efforts made by the FCSAP Secretariat and ESDs during the evaluation period have enabled sites to progress towards closure and long-term monitoring. This includes a data analytics project to identify backlog sites that should be closed and provision of additional guidance and training on how to interpret rules about closing sites in Federal Contaminated Sites Inventory. Despite this, the most common barrier to closing sites mentioned by interviewees (n=9) was concern among custodians and stakeholders that something additional could be discovered on the site, or a future harm could occur to people or the environment, post-closure. Other interviewees (n=6) said that the administrative work of closing sites is often delayed due to internal capacity constraints, causing sites to remain open that could be otherwise closed. A

[27]ECCC (2022). Federal Contaminated Sites Action Plan: Annual Report 2020-2021.
[28] This means that, in the context of the Federal Contaminated Sites Inventory (FCSI), the federal environmental liability is considered to be zero. A zero environmental liability indicates that no future costs are expected to be associated with the site.
[29] ECCC (2024). Federal Contaminated Sites Action Plan: Annual Report 2021-2022.

few (n=5) noted that with additional assessment funding they would be able to close a number of low priority sites.

2.2.5 Environmental liabilities

Environmental liabilities are the estimated future costs associated with cleaning up federal contaminated sites. The Government of Canada reports environmental liabilities annually in the Public Accounts of Canada. Liabilities for a given site are usually first reported once an assessment determines that risk-reduction work is required. As custodians remediate contaminated sites, the liabilities generally decrease.[30] Reduction of environmental liability and future expenditures by Canada is an important objective. However, it is fraught from a performance measurement perspective because project costs can increase for a variety of reasons and therefore offset progress made by R/RM activities in reducing total environmental liabilities over a given period. Further, it is common for liability to fluctuate year over year until a site is closed, and liability reduction is not linear: a decrease in liability in one year may be followed by an increase in the next year.[31] Meanwhile, other measures such as reducing the risk of litigation and 'unlocking' the economic potential of contaminated sites are not well represented in the assessment of 'liability' or the overall results story told to Canadians about FCSAP. Highlighting these other economic benefits could help further convey the impact of addressing contaminated sites.

The FCSAP Secretariat tracks two indicators related to the reduction of liability:

- Reduction in liability at FCSAP-funded sites where the remedial action plan was developed, and remediation activities were planned for the given Phase;
- The percentage of remediation expenditures that reduced liability over the Phase.[32]

For the first indicator, reduction in liability, custodians had estimated that liability would be reduced by $574 million by the end of Phase III. By the final year (2019-2020), R/RM activities at these sites decreased the liability by $515 million, or 90% of the target. However, this reduction was offset by an increase in liability, due to such things as changes in project costs, of $338 million, resulting in a net reduction in liability of just $177 million, or 31% of the target.[33] For Phase IV, custodians estimated that remediation activities would reduce liability by $554 million by the end of Phase IV. After two years of Phase IV (i.e. 2021-2022, the final year of the evaluation) R/RM activities had reduced liabilities by $148 million and some small changes in

[30] Ibidem
[31] Ibidem
[32] ECCC (July 2021). Performance Measurement Strategy, FCSAP Phase IV.
[33] ECCC (2021). Federal Contaminated Sites Action Plan: Annual Report 2019-2020

project and financial costs had decreased liability by $4 million, resulting in a net reduction of $152 million, or 27% of the five-year target.[34]

FCSAP was unable to achieve its target for reduction in liability during Phase III and is on track to miss the target for Phase IV as well. The current approach of reporting on this indicator undermines the results story of FCSAP. It makes the program appear inefficient when, in fact, many of the factors that contribute to liability increases (such as delays in projects delivery, emerging factors, scope increases, etc.) are beyond the control of the program. The following table demonstrates the variable nature of liability estimates.

Table 5: Change in environmental liabilities for FCSAP funded sites that had existing remedial action plans

Fiscal Year	Change in liabilities from FCSAP R/RM activities	Change in liabilities for other reasons	Net change
2018-2019	-$52M	+$64M	+$12M
2019-2020	-$136M	+$111M	-$26M
2020-2021	-$76M	+$24M	-$52M
2021-2022	-$72M	-$27M	-$99M

Source: FCSAP Annual Reports for 2018-2019, 2019-2020, 2020-2021, and 2021-2022.

The second measure related to liability refers to the percentage of remediation expenditures that reduced liability during a given FCSAP phase. At the end of Phase III, 95% of FCSAP remediation expenditures ($1.41 billion of $1.48 billion) had led to reductions in liability. This meets the target established for Phase III of 95%.[35] After the second year of Phase IV, 88% of remediation expenditures at FCSAP-funded sites led to reductions in liability. This is below the target of 95% established for Phase IV. Eighty-four sites representing $16 million of remediation expenditures did not report these expenditures as liability-reducing expenditures. One reason was that some R/RM occurred in-year before a liability could be recorded and then reduced. Another $30 million of remediation expenditures were for activities that did not reduce liability.[36]

[34] ECCC (2024). Federal Contaminated Sites Action Plan: Annual Report 2021-2022
[35] ECCC (2021). Federal Contaminated Sites Action Plan: Annual Report 2019-2020
[36] ECCC (2024). Federal Contaminated Sites Action Plan: Annual Report 2021-2022

2.2.6 Phase IV Performance indicators

The data for many of the Phase IV PIs are only available for year two, or the final year of the evaluation period (2021-2022). This is because the first year was used to collect data and establish a baseline for new PIs. The following table shows Phase IV PIs, the target, and the status or progress towards the target achieved by 2021-2022. These are organized first by indicators that are on track or that have been achieved, followed by those needing additional progress to meet the target. This data shows that FCSAP performance is on track to meet or exceed targets set for most (10 of 14) indicators but has shown less progress made towards some (4 of 14) targets. Targets related to administrative items, site assessments and site closure are among those that are met or on target, whereas targets that relate to reducing liabilities, completing R/RM, and the timely use of funds are among those not on track to be achieved.

Table 6: Progress made towards Phase IV Performance Indicators by the end of 2021-2022

Performance on-track or has achieved target

Indicator	Target	Result after 2021-2022
% of FCSAP-eligible sites on the Federal Contaminated Sites Inventory are closed or in long-term monitoring	60%	61%
% of planned site assessments completed	97%	49%[37]
% of times ESDs completed the review of site classification and site-specific scientific/technical documents within established service standards	90%	94%
% of senior governance meetings held on time each FY	80%	100%
% of action items and decisions made at senior governance meetings are completed by deadline	100%	96%
% of pre-identified information gaps are addressed	80%	86%
Annual FCSAP federal demand forecasts are developed based on regional workplans and are shared with the private sector	Federal demand shared[38]	Completed on time
Contracts issued via standard procurement tools or solicited respect custodian service standards	90%	75% - 100%

[37] Of target, after 2 of 5 years.
[38] Shared on time, online, and through outreach to the 6 regions.

Indicator	Target	Result after 2021-2022
Contracts issued via standard procurement tools or solicited respect DCC service standards	90%	92%
Contracts issued via standard procurement tools or solicited respect PSPC service standards	90%	98%

More progress needed to achieved target

Indicator	Target	Result after 2021-2022
Liability reduction for sites with existing risk reduction plans at the start of Phase IV	Reduction of $554M	$152M, or 27% of target
Percentage of remediation expenditures spent at FCSAP funded remediation sites that reduce liability during Phase IV	95%	88%
Percentage of FCSAP-funded sites that have completed R/RM (highest step completed 8 or greater)	65%	28% of target
More efficient spending leads to a timelier program delivery	5%[39]	1%

Source: Internal program documents

2.3 External and Emerging Issues

Key findings: FCSAP and custodians face external and emerging issues that can impact the performance and efficiency of their work. While each external and/ or emerging factor is unique, they impact the work of FCSAP in common ways including necessitating higher financial inputs for the same or reduced outputs, creating potential delays and reductions in the scope of remediation projects, and forcing a re-evaluation of project priorities and resource allocations. The program has been responsive to challenges; for example, by actively communicating workplans to industry, or by developing guidance documents that help custodians consider the impacts of these issues.

The COVID-19 pandemic was one external factor that impacted the delivery of virtually all government services and programs. It had a particular impact on FCSAP activities. Several projects were postponed due to travel restrictions and additional costs associated with mandatory quarantine periods. Custodians were able to adapt by focusing on desktop reviews,

[39] Increase in average annual spending compared to Phase III.

closure reporting, and activities that did not require fieldwork. In addition, some Indigenous communities had to limit access to outsiders, affecting engagement plans and requiring adjustments to investment plans. Despite the challenges, custodians and project teams adapted to the changing conditions, with 86% of available assessment funding and 83% of available remediation funding spent during 2020–2021.

PFAS (Per- and Polyfluoroalkyl Substances) are a major concern for several departments, causing a significant financial and human resource burden. PFAS remains a challenge with the potential to increase future liabilities. Some interviewees with awareness or experience with PFAS (n=6) note that the full scope and cost to remediate these sites remains unknown, and that the persistence of the chemicals makes them costly to clean up. A few (n=5) noted that there is still a lack of guidance and guidelines about how best to address sites with PFAS contamination, or that guidelines continue to be updated as more is learned about the class of chemicals. This has led to a 'shifting goalposts' approach in terms of the acceptable limits in the environment. But PFAS are not the only group of contaminants for which the understanding of their impacts is emerging along with associated liabilities. Other issues such as pre-1970s widespread application of persistent pesticides such as Dichlorodiphenyltrichloroethane also create future unknowns. These issues have generally only been brought forward by environmental consultants as areas of potential concern during environmental site assessments over the last decade. An evaluation case study showed a site which had contamination resulting from the widespread application of persistent pesticides that were applied pre-1970 as per the approved standards of the time. This finding necessitated a costly (approximately $16 million) remediation process. Other federal sites may have residual impacts from the historical widespread application of persistent pesticides requiring assessments to confirm or deny their presence and extent as well as any associated potential liabilities, especially if the federal land use changes in the future.

Climate change is another factor external to the program that can have significant impacts on FCSAP into the future. A changing climate can impact sites already remediated and make future remediation more costly in certain circumstances. Climate change poses a particular risk to northern sites due to permafrost thawing, and coastal sites due to erosion and heavy precipitation events. These climate change events affect the stability of remediation efforts and increase the complexity and cost of projects. Wildfires and flooding also continue to be a major issue in parts of Canada. The response to these impacts can occupy resources that were otherwise expected to be available for FCSAP projects, and limit access to sites in some cases.

The FCSAP Secretariat has developed guidance and delivered training about how to incorporate climate change assessment into planning. As a result, climate change risk

assessments have been conducted for some sites. As mentioned in Section 2.1, PCs related to climate change had initial targets that were considered by many to be unrealistically high. Interviewees (n=5) call for more base-level knowledge, access to technical experts, and tools to assist in identifying vulnerabilities and incorporating climate change impacts into site management.

2.4 Impact on Indigenous Peoples and Communities

Key findings: Early data shows that changes made to site eligibility criteria has increased the number of funded sites on reserve lands and in the North, resulting in projects being carried out that otherwise would not have been. For eligible projects funded in 2021-2022 in the North and on-Reserve, nearly one-third (29%-30%) of total contract dollars were attributed to Indigenous owned businesses. More than half (55%) of the person-hours of on-Reserve projects were worked by Indigenous peoples, however the percentage worked by Indigenous women was much lower (3%).

During the evaluation period, FCSAP adopted new PCs to measure and support economic benefits to Indigenous Peoples and firms. Data for these socio-economic impacts were first tracked in 2021-2022, which is the final year of the evaluation period. Targets for these PCs were not set in the first year of Phase IV; the plan was to collect data in support of baselines and establish targets later on in the Phase. The available data showed that for eligible projects in the North and on-Reserve, nearly one-third (29%-30%) of total contract dollars were attributed to Indigenous owned businesses. More than half (55%) of the person-hours of on-Reserve projects were worked by Indigenous peoples. However, the percentage worked by Indigenous women was much lower (3%). As previously discussed, it is noteworthy that many FCSAP funded projects on reserve lands and in the North are funded through G&Cs and were not required to report data related to the socio-economic PCs. It is not clear exactly how many of the projects occurring in the North and/or on-Reserve are reflected in the PC data, but it is expected that there are relatively few.

Table 7: Socio-economic impacts, 2021-2022

Program Commitment Theme	Projects in the North	Projects On-Reserves
% person-hours worked by Indigenous peoples	8%	55%
% person-hours worked by Indigenous women	2%	3%
% of solicitations for contracts include SEB[40] criteria or PSIB[41]	38%	0%
% of dollar value - contracts attributed to Indigenous businesses	29%	30%

Source: Internal program documents

Over the evaluation period, FCSAP changed site eligibility criteria as a way to increase the number of funded sites on-Reserve lands and in the North. Early data shows that these changes have resulted in projects being carried out that otherwise would not have been. In previous phases, the program covered only Class 1 and ongoing Class 2 sites with historic contamination. That means the contamination had to have occurred before April 1, 1998. However, the expanded eligibility criteria allow sites in the North or on First Nations reserves that are Class 1, 2 or 3, and that were contaminated pre- or post-1998. These changes have resulted in more projects funded that impact Indigenous communities.

For example, in the B.C. Region, ISC and FCSAP contributed $13.2 million to fund remediation at eighteen Class 2 and Class 3 sites over the evaluation period that would not otherwise have been eligible for FCSAP funding. The following table shows these projects and their budgets.

[40] Socio-economic benefit
[41] Procurement Strategy for Indigenous Businesses

Table 8: FCSAP/ISC BC Region projects funded during evaluation period and made eligible by changes to criteria for Reserve Lands

First Nation and Project	Combined FCSAP and ISC funding ($)
Sumas, IR6 Brick Plant Area	6,143,298
Nadleh Whuten, IR4 Lejac Abandoned Residential School	2,465,000
Dzawada`enuxw, IR7 Barge Landing	1,862,099
Katzie, IR1 Lots Waste Burning and Fill	664,857
Tla'amin Nation, IR1 Former Klahanie Store and Fuel Station	583,281
Sto:lo Nation, Coqualeetza Complex	524,700
Lake Babine, IR6 Fuel Storage (Former School)	280,000
Westbank, IR9 Cut-Off Lands (Old Landfill Site)	220,000
Tla-o-qui-aht, IR1 Former Opitsaht Landfill	110,000
Okanagan, IR1 Eagle Rock Quarry	105,000
Cheam, IR1 Wire & Waste Burning	100,000
Aitchelitz, IR9 IOTA Construction	62,600
Skatin Nations, IR4A New Generator Site and Bioremediation	59,449
Tk`emlúps te Secwépemc, IR1 301 Chilcotin Road	33,000
Skatin Nations, IR9 Decommissioned Landfill Site	20,000
Skatin Nations, IR9 Vehicle Dumpsite	20,000
Okanagan, IR1 Six Mile Creek Dump Sites	13,169
Squamish, IR6 Kits Wye Site	10,610
Total	$ 13,277,063

Source: Information for evaluation Case Study provided by ISC representative.

All of the projects described in the table above supported community priorities and the clean-up of the sites facilitate their use in ways that would create economic or other benefits, such as working towards reconciliation. An evaluation case study showed that the removal of asbestos and other demolition waste from the former Lejac Residential School site would not have occurred without the change in criteria. The project allowed the First Nation to pursue an economic development opportunity using the site, and furthered reconciliation goals by finalizing the removal of a former residential school and returning the land to community use.

Interviewees (n=9) indicated that they had some level of uncertainty about how and when to engage with First Nations; they require additional guidance to implement meaningful consultation for their sites and to understand engagement and reporting requirements. The FCSAP Secretariat has developed guidance and provided training to custodians regarding Indigenous engagement, however its release occurred after the evaluation period, and it is too early to determine whether the material is appropriate and effective. However, the guidance

document is comprehensive and covers “meaningful engagement” in depth, as well as Duty to Consult triggers and approaches. FCSAP also provided several training sessions in Phase IV on Indigenous engagement for program partners and their consultants. Some interviewees (n=9) noted that their departments have internal guidance on Indigenous engagement, or work units that exist to conduct or consult on engagement, meaning that it is not only the FCSAP Secretariat’s responsibility to empower and support custodians in these efforts, but their own departments as well. ISC and CIRNAC representatives noted that while they have significant experience and expertise engaging with Indigenous communities, and want to support FCSAP as best as possible, they are not resourced to take on this role for other custodians.

3 Conclusions

3.1 Governance and reporting

FCSAP's governance, oversight, planning and performance measurement structures are complex and have evolved over the evaluation period. Changes to the ADM Board and the DG Committee have helped to engage senior management and FCSAP has shown the ability to modify its structure as needed to ensure that needs are being met – such as in the development of the NPTWG and ongoing refinement of the RIPBs.

For Phase IV, FCSAP identified 14 PIs related to core project objectives of reducing risks to human health and the environment from federal contaminated sites and reducing the environmental liability associated with these sites, as well as 46 PCs related to socio-economic benefits, Indigenous Peoples, small/medium enterprises, site level variance, and climate change.

Custodians have experienced a significant increase in reporting requirements and most report some additional burden as a result. For some, the result has been a diversion of resources from program management to reporting compliance. This observation has raised the concern that the core focus of FCSAP could be diluted. As such, custodians are of the belief that they and the FCSAP Secretariat should streamline the number of indicators and commitments to focus on the most critical aspects of program success.

Overall, the FCSAP Secretariat and the overall management of FCSAP are viewed as effective, especially given the complexity of the program. Horizontal initiatives can be difficult to manage, and a significant amount of work has been done over the full duration of FCSAP to address contaminated sites that would not have occurred otherwise.

3.2 Performance

Data shows that FCSAP performance is on track to meet or exceed targets set for most (10 of 14) current PIs but has shown less progress made towards key objectives such as closing sites, reducing environmental liabilities, and spending available dollars.

Assessment activities are on track based on targets for Phase IV. By the end of the evaluation period (2021-2022), 49% of planned Phase IV site assessments had been completed over a two-year period, with three years to complete the remaining 51%, suggesting progress is

meeting expectations. FCSAP results in significant R / RM work being carried out. However, despite spending $1.08 billion on risk reduction and remediation activities during the evaluation period, custodians were unable to spend all funds available to them.

In each of the four years covered by the evaluation, total FCSAP expenditures on assessment, remediation and program management were less than the total available funding. The number of site closures increased year-over-year during the evaluation period, but more progress is needed to meet the target for Phase IV. For example, while in 2019-2020 78 sites were closed, the first two years of Phase IV saw 142 sites close and another 138 in long-term monitoring. The rate will need to increase to achieve the Phase IV target of 1,159 sites closed or in long-term monitoring.

Closing a site implies that no further action is required by the custodian. It is also an indication that the custodian has reduced the federal environmental liability, the estimated future cost associated with cleaning up the site, to zero. Reduction of environmental liability and future expenditures by Canada is an important objective, but fraught from a performance measurement perspective; project costs can increase for a variety of reasons and therefore offset progress made by R / RM activities in reducing total environmental liabilities over a given period. For example, in Phase III, custodian activities would have reduced liabilities by 90% of the target amount for the Phase, but progress was offset by project costs and other increases in liability that resulted in only a net reduction of 31% of the target for the Phase. A similar but less dramatic effect is occurring in Phase IV, where after two years the R/RM work would have reduced liability by 45% of the target but were offset by project cost and other liability increases, which resulted in the program only achieving 27% of its target for the phase.

3.3 External and emerging issues

FCSAP and custodians face external and emerging issues that can impact the performance and efficiency of their work. An external factor that impacted the delivery of virtually all government service and programs was the COVID-19 pandemic. It has also impacted FCSAP activities. Several projects were postponed due to travel restrictions and additional costs associated with mandatory quarantine periods. Despite the challenges, custodians and project teams adapted to the changing conditions, with 86% of available assessment funding and 83% of available remediation funding spent during 2020–2021.

PFAS (Per- and Polyfluoroalkyl Substances) are a major concern for several departments, causing a significant financial and human resource burden. But PFAS are not the only group of contaminants that can affect FCSAPs ability to reduce liabilities. Other issues including pre-

1970s application of persistent pesticides, such as Dichlorodiphenyltrichloroethane, also create a need for assessment and the potential for costly remediation.

Climate change is another factor external to the program that can have significant impacts on FCSAP into the future. A changing climate can impact sites already remediated and make future remediation more costly in certain circumstances. The FCSAP Secretariat has developed guidance and delivered training on how to incorporate climate change assessment into planning, but interviewees call for more base-level knowledge, access to technical experts, and tools to assist in identifying receptor vulnerability and incorporating climate change impacts into site management.

3.4 Impact on Indigenous Peoples and Communities

During the evaluation period, FCSAP adopted new PCs to measure and support economic benefits for Indigenous Peoples and firms via procurement carried out through O&M funding. Available data showed that for eligible projects funded in 2021-2022 in the North and on-Reserve, nearly one-third (29%-30%) of total contract dollars were attributed to Indigenous owned businesses. More than half (55%) of the person-hours of on-Reserve projects were worked by Indigenous peoples, however the percentage worked by Indigenous women was much lower (3%). Since projects funded by ISC G&Cs are not included in this data, it vastly underrepresents the impact generated. Further, given the department's G&Cs are directly allocated to First Nation bands for managing contaminated sites within their communities, implementing a performance measure similar to those used for procurement contracts was considered unsuitable for the G&Cs funding model.

Over the evaluation period, FCSAP changed site eligibility criteria to increase the number of funded sites on Reserve lands and in the North. Early data shows that these changes have resulted in projects being carried out that otherwise would not have been. For example, among ISC projects in the BC region alone, a total of 18 additional projects were funded on sites located on Reserve Lands that would not have been eligible prior to the changes.

4 Recommendations, Management Responses and Action Plan

The following recommendations are directed to ECCC's Assistant Deputy Minister of Environment Protection Branch more precisely to the FCSAP Secretariat for consideration. They are expected to require collaboration from all FCSAP partners.

Recommendation 1

ECCC's Assistant Deputy Minister of Environment Protection Branch, in consultation with Federal Contaminated Sites Action Plan delivery partners, should review its Performance Measurement Strategy to streamline the number of Performance Indicators and Program Commitments, to ensure that performance measurement information generates meaningful value for decision making and allows for efficient reporting.

Management Response:

The Assistant Deputy Minister of Environmental Protection Branch agrees with this recommendation.

Action 1: The Federal Contaminated Sites Action Plan (FCSAP) Secretariat is updating the Performance Measurement Strategy for Phase V in consultation with FCSAP partners. The new Performance Measurement Strategy will include a streamlined list of performance indicators and program commitments, which will be more pertinent and more meaningful to decision makers and the public, and which will allow monitoring and reporting against program objectives and government priorities in a more efficient and effective manner.

Deliverables	Timeline	Responsible
Phase V Performance Measurements Strategy, including performance indicators, program commitments and associated methodologies.	September 30, 2025	DG Environmental Protection Operations Directorate

Recommendation 2

ECCC's Assistant Deputy Minister of Environment Protection Branch in collaboration with Federal Contaminated Sites Action Plan (FCSAP) program partners, should develop strategies to highlight the impacts of projects and develop a more compelling narrative about the role of FCSAP in generating socio-economic benefits for Indigenous Peoples.

Management Response:

The Assistant Deputy Minister of Environmental Protection Branch agrees with this recommendation.

Action 1: The Federal Contaminated Sites Action Plan (FCSAP) Secretariat, in collaboration with FCSAP program partners, will develop strategies to highlight the impacts of projects and develop a more compelling narrative about the role of FCSAP in generating socio-economic benefits for Indigenous Peoples.

Deliverables	Timeline	Responsible
Communications products on Federal Contaminated Sites Action Plan's positive impact on Indigenous Peoples and communities.	March 31, 2027	DG, Environmental Protection Operations Directorate

Recommendation 3

ECCC's Assistant Deputy Minister of Environment Protection Branch, in consultation with Federal Contaminated Sites Action Plan delivery partners, should design and implement mechanisms to report on progress made towards reducing environmental liability that are not impacted by in-Phase fluctuations in liability estimates.

Management Response:

The Assistant Deputy Minister of Environmental Protection Branch agrees with this recommendation.

Action 1: The Federal Contaminated Sites Action Plan (FCSAP) Secretariat has developed and will implement a new performance indicator that tracks the "amount of environmental

liabilities offset through FCSAP remediation spending". It is part of the Horizontal Initiative table, which is an annex to ECCC's Departmental Results Report. This new indicator will allow the program to tell a better performance story by showing how much liability has been reduced compared to a scenario under which the program would not have existed.

Deliverables	Timeline	Responsible
A new indicator included in the Federal Contaminated Sites Action Plan Horizontal Initiative table for 2025-2026.	September 30, 2025	DG, Environmental Protection Operations Directorate

5 Appendices

5.1 Appendix A – Evaluation Matrix

Governance and reporting

Questions:

1. What has been the impact of changes to the FCSAP governance and planning bodies on program effectiveness or efficiency?
2. What has been the impact of changes to performance measurement and program commitments on efficiency and administrative burden on partners?
3. To what extent is performance measurement data available, collected, and used for decision making?

Indicators:

- Evidence of / views on appropriateness and efficiency of administrative and operational processes
- Evidence of / views on the impact of enhanced governance and planning bodies (e.g. ADM Board, DG Advisory Committee, RIPBs) on efficiency, administrative burden, and outcomes
- Evidence of / views on the impact of reporting requirements related to performance and PCs on FCSAP partners
- Number of PIs with targets and baselines established according to planned schedule
- Number of PIs without targets, baselines or collected data
- Views on the barriers to data collection, determining baselines, or utilizing performance measurement data
- Evidence of / views on the extent to which this information is being used to inform senior management/decision-makers

Sources and methods:

- Document review; administrative data review; key informant interviews

Performance

Questions:

4. To what extent has the program achieved its expected outcomes?

5. How, and to what extent, does the level of funding for assessment activities impact FCSAP performance?

Indicators:

- Assessment of available performance data against performance measurement framework
- Assessment of program expenditures on assessment and remediation activities during the evaluation period
- Views on factors impacting the delivery of the FCSAP (e.g. liabilities keep increasing, old tools for the program reporting (Interdepartmental Data Exchange Application and Federal Contaminated Sites Inventory), rules around eligibility criteria to access the sites)
- Number and percentage of suspected federal contaminated sites that have been identified, but not yet classified (i.e., Step 3 or below)
- Number and percentage of federal contaminated sites assessed as Classes 1 and 2 requiring R/RM where such activities are not yet completed (i.e., Step 7)

Sources and methods:

- Document review; administrative data review; key informant interviews; case studies

External and Emerging Issues

Questions:

6. How do external factors and emerging issues impact the overall relevance, effectiveness, or efficiency of the FCSAP?

Indicators:

- Evidence of / views on the nature of external factors impacting the FCSAP (e.g. climate change, economic inflation, HR capacity among partners and private sector, cost-sharing issues, emerging contaminants)

Sources and methods:

- Document review; administrative data review; key informant interviews; case studies

Impact on Indigenous Peoples and Communities

Questions:

7. To what extent have program changes affected the relevancy of the FCSAP to contaminated sites affecting Indigenous Peoples?

8. To what extent have program changes affected information-sharing, engagement and collaboration with Indigenous communities?

Indicators:

- Number of sites on reserve lands or lands in the North affecting Indigenous Peoples that have been made eligible by the expanded criteria and/or other program changes
- Number of new projects and/or change in number of projects funded by the FCSAP on reserve lands or lands in the North affecting Indigenous Peoples because of expanded criteria and/or other program changes
- Evidence of / views on the extent to which there has been an increase in economic benefits to affected Indigenous communities, including job training, hiring Indigenous workers, and contracting Indigenous businesses
- Evidence of internal guidance and documents that support the FCSAP partners in better addressing contaminated sites that affect Indigenous communities

Sources and methods:

- Document review; administrative data review; key informant interviews; case studies

5.2 Appendix B – Evaluation Methods

This evaluation provides an assessment of the design and delivery of FCSAP from 2018-2019 to 2021-2022, which corresponds to the final two years of FCSAP Phase III and the first two years of FCSAP Phase IV. The evaluation focuses on key themes of interest to program stakeholders including governance and reporting; performance; emerging and external issues; and the impact of the program on Indigenous Peoples and communities.

The following methods were used to inform the evaluation:

Document Review: Documents and resources housed on the Interdepartmental Data Exchange Application, reports on plans and priorities, annual reports and other documents of relevance were reviewed for information that aligned with evaluation questions and indicators.

Administrative, performance and financial data: Available performance measurement data; data available from the Federal Contaminated Sites Inventory was review information that aligned with evaluation questions and indicators. These data were most useful for reporting FCSAP performance.

Key Informant Interviews: During the data collection phase, a total of 31 interviews were conducted with 49 representatives of 17 custodian and ESDs and the FCSAP Secretariat.[42] Interviews were conducted remotely, using MS Teams, in the interviewee's preferred official language. Interviews were conducted during April 2024 and May 2024. The following table presents the names of organizations for which representatives participate in an evaluation interview.

Organization Name	# Interviews	# Participants
Agriculture and Agri-food Canada	1	3
Canada Border Services Agency	2	5
Crown Indigenous Relations and Northern Affairs Canada	2	2
Fisheries and Oceans Canada	2	5
Department of National Defence	2	3

[42] An additional set of 21 interviews were conducted during the scoping phase of the evaluation. Data from those interviews were used to inform the areas of focus for the evaluation but are not otherwise reported or used to inform the evaluation findings.

Environment and Climate Change Canada	2	2
Health Canada	2	3
Indigenous Services Canada	3	3
Jacques-Cartier and Champlain Bridges Inc.	1	5
National Capital Commission	3	3
National Research Council	2	3
Natural Resources Canada	1	1
Parks Canada	2	2
Public Services and Procurement Canada	1	2
Royal Canadian Mounted Police	1	1
Treasury Board of Canada Secretariat	1	2
Transport Canada	3	4
Total	31	49

Comparative program analysis: An internet search of government led programs in English-speaking countries focused on funding assessment, management and remediation of contaminated sites was undertaken to identify potential programs for comparative analysis. Four programs were identified for analysis, however upon further research one program had ceased operations, leaving three for use in the comparative analysis:

- Crown Contaminated Sites Program – Government of British Columbia (Ministry of Forests, Lands, Natural Resource Operations and Rural Development)
- Superfund (Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) – United States Environmental Protection Agency
- Contaminated Sites Remediation Fund – Government of New Zealand

Information was gathered online and through publicly available sources. One key informant interview was conducted with a representative of the New Zealand Contaminated Sites Remediation Fund; representatives of the other two programs declined to participate in an interview. To guide the data collection, a structured template was used to organize available information related to: program background; objectives and expected outcomes; site/project eligibility and funded activities; governance structure; key challenges, opportunities and best practices.

Case Studies: Five case studies were conducted to inform evaluation findings. During the scoping phase of the evaluation (August 2023), scoping interview participants from custodian and ESDs were asked if they had recommendations for specific sites that could be used as case studies. Very few interviewees provided suggestions at the scoping phase. As such, the evaluation team decided to focus the case studies on the overall themes of interest and areas of focus of the evaluation. Based on the themes, the FCSAP Secretariat provided suggested key informant contacts to speak to the themes or suggest specific sites for inclusion in case studies, where applicable. The evaluation team also identified potential contacts for case study themes based on discussions had with key informants during the data collection phase. The following table describes the case studies by theme, content, and contribution to the evaluation findings.

Case Study 1

Theme: Capacity of private sector contractors and the impact to the FCSAP efficiency and effectiveness.

Rationale: Several scoping interview participants noted that constraints in the environmental services field have impacted the ability of some custodians to effectively and efficiently contract and complete some projects in a timely manner.

Key contribution to evaluation data: Key informants from PSPC spoke to the challenges they have experienced securing consultants or contractors to complete FCSAP work, even where procurement tools such as Standing Offers are in place. Efforts to include large private sector consultants in the case study interviews were not successful.

Case Study 2

Theme: Remediation of sites affecting Indigenous Peoples.

Rationale: Over the evaluation period, FCSAP expanded project eligibility and articulated PCs to better address contaminated sites affecting Indigenous Peoples. The purpose of the case study was to gather additional data about the impact program changes have had in addressing this program priority.

Key contribution to evaluation data: Key informants from ISC identified sites that had been remediated that would not have qualified for FCSAP funding without the changes to eligibility criteria. Additional data about the impacts of the project on communities were gathered from press reports and comments in the media made by program and community representatives.

Case Study 3

Theme: Best practices and lessons learned for increasing economic benefits for Indigenous Peoples.

Rationale: FCSAP PCs and Government of Canada procurement policies have increased the focus on generating economic benefits to Indigenous Peoples and companies. The purpose of the case study was to understand the extent this is occurring and potential best practices.

Key contribution to evaluation data: Key informants from PSPC spoke to the current policy approach and highlighted an early engagement and the use of Indigenous Benefits Plans in contracts as best practices. Also discussed was the approach of Indigenous firms partnering with other environmental services firms to strengthen each others' bids. Limits to related FCSAP PCs were noted, owing to ISC use of G&Cs funding for FCSAP projects occurring on-Reserve.

Case Study 4

Theme: Bundling of project sites to achieve efficiencies.

Rationale: Changes made during the evaluation period were intended to support greater efficiency through the bundling of sites. The purpose of this case study was to examine the extent to which this has occurred, the extent of efficiency gain, as well as factors enabling and limiting the bundling of sites for the purpose of increasing efficiency.

Key contribution to evaluation data: Representatives of ECCC discussed a bundled project involving ECCC and CIRNAC sites. Project documentation provided details about how the bundle cam to be established and the nature of cost savings resulting from the use of bundling compared to each custodian undertaking the projects separately.

Case Study 5

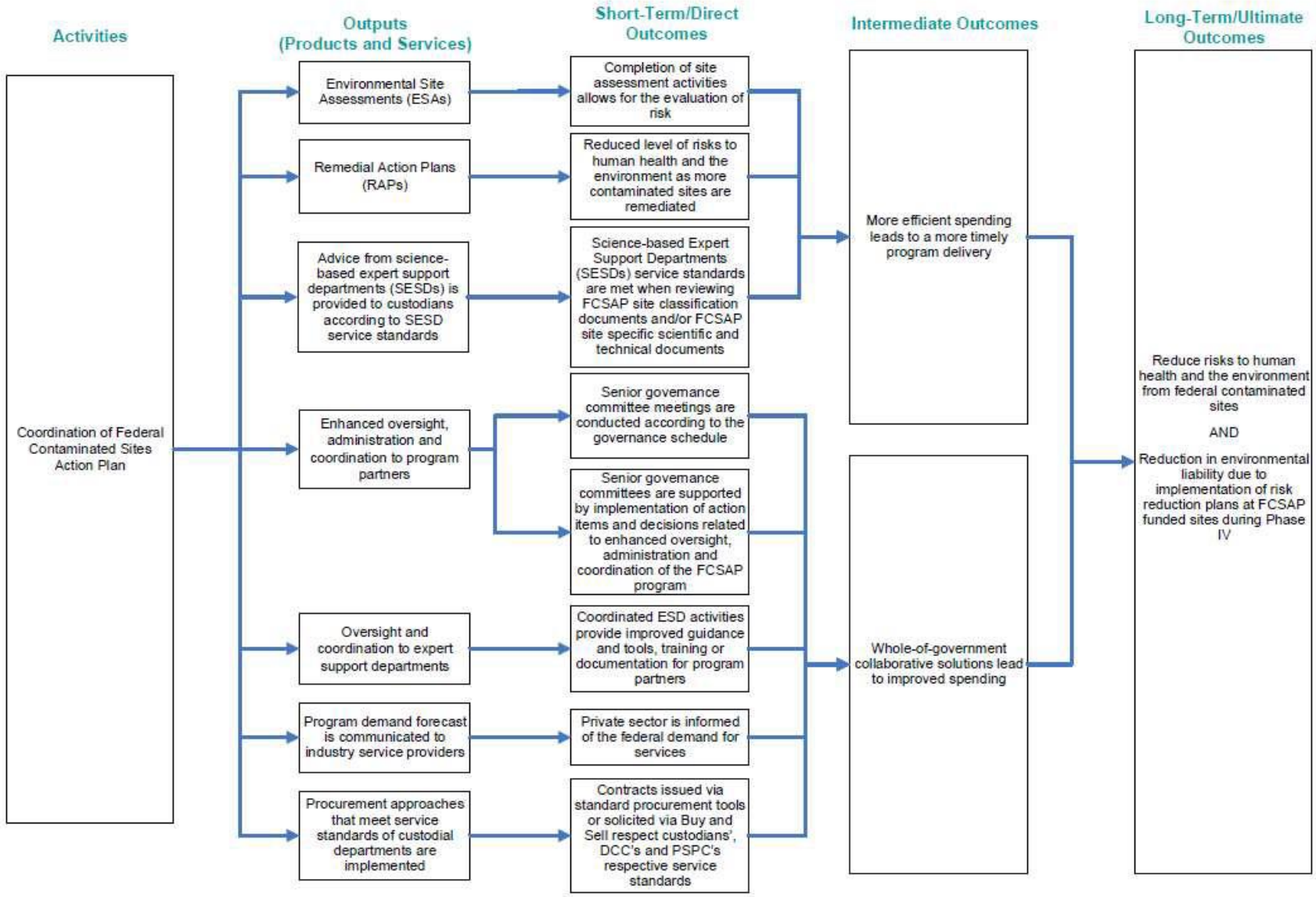
Theme: The impact of external and emerging issues on the FCSAP.

Rationale: Climate change, emerging contaminants, economic inflation, and other factors challenge the FCSAP's ability to reduce liabilities associated with federal contaminated sites. This purpose of this case study was to consider how one or more of these external factors affect the overall relevance, efficiency, and effectiveness of the FCSAP

Key contribution to evaluation data: Representatives of Agriculture and Agri-Food Canada described a large remediation project addressing historical contamination with pesticides. The

case study helped to highlight the potential impact on FCSAP due to emerging contaminants beyond the well-known issue of PFAS.

5.3 Appendix C – FCSAP Logic Model



5.4 Appendix D – FCSAP Participants

The Federal Contaminated Sites Action Plan (FCSAP) is a horizontal initiative involving the following federal departments, agencies and consolidated Crown corporations.[43]

Secretariat (Role: Administer FCSAP)

- Environment and Climate Change Canada, with support from Treasury Board Secretariat of Canada

Expert Support Departments *(*Role for ECCC, HC, DFO: Review project documentation, including classifications, to ensure that the risks posed by the sites to human health and the environment have been adequately considered in the project proposals; Role for PSPC: development of project management and procurement tools, the dissemination of information on innovative technologies and best practices, and acting as liaison to industry)

- Environment and Climate Change Canada; Health Canada; Fisheries and Oceans Canada; Public Services and Procurement Canada

Custodians (Role: Manage the contaminated sites they are responsible for, which involves work closely with consultants, contractors and trades people in the R/RM of contaminated sites.)

- Agriculture and Agri-Food Canada; Canada Border Services Agency; Correctional Service of Canada; Crown-Indigenous Relations and Northern Affairs Canada; Department of National Defence; Fisheries and Oceans Canada; Indigenous Services Canada; Innovation, Science and Economic Development Canada; Jacques-Cartier and Champlain Bridges Inc; National Capital Commission; National Research Council Canada; Natural Resources Canada; Parks Canada; Public Services and Procurement Canada; Royal Canadian Mounted Police; Transport Canada; Via Rail Canada Inc.

[43] Federal contaminated sites partners

5.5 Appendix E – Bibliography

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