INDIGENOUS SERVICES CANADA

Evaluation of the Contaminated Sites On-Reserve (South of the 60th Parallel) Program

ISC Evaluation

March 2024

Final Report

Indigenous Services Canada | Services aux Autochtones Canada

Canada

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List of abbreviations and acronyms

CIRNAC	Crown-Indigenous Relations and Northern Affairs Canada
COVID-19	Coronavirus Disease 2019
CSOR	Contaminated Sites On-Reserve
ESA	Environmental Site Assessment
FCSAP	Federal Contaminated Sites Action Plan
FCSI	Federal Contaminated Sites Inventory
GBA Plus	Gender-based Analysis Plus
IEMS	Integrated Environmental Management System
INAC	Indigenous and Northern Affairs Canada
ISC	Indigenous Services Canada
LED	Lands and Economic Development
LEMB	Lands and Environmental Management Branch
TBS	Treasury Board Secretariat

Executive summary

This evaluation of the Contaminated Sites On-Reserve (South of the 60th Parallel) Program (CSOR Program) was outlined in the Indigenous Services Canada (ISC) Five Year Evaluation Plan,[1] and conducted in compliance with the Treasury Board of Canada *Policy on Results* and the *Financial Administration Act*. The evaluation was undertaken to provide a neutral and evidence-based assessment of: relevance; relationships; best practices; and, performance in the areas of contaminated sites assessment, management, remediation and related processes.

Background

This evaluation focuses on the performance of the CSOR Program with particular regard for the efficiency and effectiveness of its interventions. The Program is a national initiative that is expected to contribute to the ultimate outcomes of the Lands, Natural Resources and Environmental Management portfolio in the ISC Lands and Economic Development Sector by supporting the assessment and remediation of contaminated sites on reserve lands and on any other lands under ISC's custodial responsibility. The CSOR Program provides support to First Nations to procure environmental consultants to conduct contaminated sites assessment and remediation work; manages and updates an inventory of contaminated sites on reserve; and liaises with other federal departments and agencies working with the Federal Contaminated Sites Action Plan Secretariat (FCSAP).

Evaluation scope and methodology

The scope of the evaluation covers the years 2014-15 to 2019-20 as per Treasury Board requirements,[2] as well as activities from April 2020 to August 2023 to measure the early impacts of the COVID-19 pandemic on the program's performance.

The Methodology Report was finalized in March 2023, with primary data collection occurring from March to August 2023. The evaluation relied on a mixed-methods approach that included the following lines of evidence: a document, literature and media review; interviews with 21 current and former CSOR Program staff; interviews with 20 individuals from First Nations communities, including their hired consultants; 34 returned responses from a survey distributed to 363 community level funding recipients; 7 community site visits in British Columbia, Saskatchewan, and Quebec; and an analysis of quantitative administrative data held by the Environment Directorate at ISC Headquarters.

Key findings

The evaluation assessed the CSOR Program through the traditional evaluation lenses of relevance and performance (effectiveness and efficiency), and developed eleven key findings

[1] Indigenous Services Canada. (2022). *2022-23 to 2026-27 Departmental Evaluation Plan*. https://www.sac-isc.gc.ca/eng/1666179748156/1666179794481

[2] Treasury Board Secretariat (2016). *Policy on Results*. https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=31300.

across seven general thematic areas: relevance; achieving results; challenges; process; roles and relationships; and external forces.

Relevance: The CSOR Program continues to address Canada's legal obligations to First Nations related to contaminated sites on First Nations' lands, and aligns with federal government priorities and commitments related to both First Nations' self-determination and the environment. The evaluation also found that there is a continued need for the CSOR Program as it benefits Indigenous communities holistically, with a particular consideration for vulnerable populations; and that First Nations are best positioned to engage their own communities due to their unique worldviews and cultural understandings.

Achieving results: The CSOR Program works toward three objectives. Over the scope of the evaluation, the first objective to (1) reduce federal liabilities was not necessarily met. In fact, federal liabilities reduced with the completion of projects and simultaneously rose due to increasing project costs as well as the addition of new sites with liabilities via assessments. This resulted in the addition of $13.7 million worth of known liabilities. The CSOR Program has, nonetheless, made progress in achieving its objectives to (2) remediate known high-risk sites and reduce risks to public health and safety, while also (3) opening First Nations' land up for future development.

Challenges: The main challenges in delivering the CSOR Program lie in both the amount and the sources of funding. Particularly, reliance on the FCSAP funding structure creates challenges for ISC to respond to its own unique context in terms of both the types of activities undertaken and the processes to fund activities; and there is a greater demand for the CSOR Program than the current budget can address. Human and technical capacity in both ISC and in First Nations is another challenge in delivering the CSOR Program effectively. Having a sufficient number of dedicated, qualified, and appropriately compensated staff is necessary to achieve good results.

Process: The CSOR Program has found some internal efficiencies by collaborating with other government departments and programs to access surplus funding, and through the bundling of its sites. Working with First Nations has produced additional efficiencies during the lifetime of projects. However, the Program's layers of administrative requirements are a source of inefficiency, and the current mechanisms for tracking performance are not sufficient to measure progress toward the ultimate outcome of CSOR's interventions.

Roles and relationships: The CSOR Program has a good structure internally, with Headquarters providing national guidance and financial reporting supports, and Regions working directly with First Nations to carry out projects. Involving local representatives from First Nations in all aspects of CSOR projects builds trust with the community and ultimately facilitates effective project management. The CSOR Program has positive relationships with other federal custodians and FCSAP.

Service transfer: To advance service transfer within the Programs current structure, there is a need to support First Nations to build further capacity in contaminated site assessment and remediation activities. An ISC Indigenous business development and procurement strategy

would help the CSOR Program to ensure maximum benefits from CSOR projects are flowing to First Nations. Additionally, the Program could find better alignment with First Nations' definitions of success by revising the program's performance measurement metrics and data collection instruments. To achieve transformative change, the CSOR Program has a need for a mechanism to support First Nations in assessing and remediating sites that First Nations identify as priorities, but which are outside of the current eligibility requirements; and providing additional, ongoing funding to ensure that First Nations can hire and retain the appropriate technical expertise within their communities.

External forces: Climate change and the COVID-19 pandemic have had varying impacts on the CSOR Program. Impacts from climate change on contaminated sites include unpredictable seasonal weather and access to remote communities, as well as new sources of potential contamination after flooding, fires and erosion. To respond to impacts on contaminated sites from climate change, both First Nations and ISC are beginning to incorporate climate change adaptation and mitigation strategies into contaminated site management plans. Additionally, the COVID-19 pandemic has added to the unmet demand for funding from the CSOR Program. While some projects continued to advance during the COVID-19 pandemic, other projects were delayed or stalled. The resulting backlog of sites to be addressed, combined with rising activity costs has meant that the Program is now expected to address additional sites with reduced purchasing power.

Recommendations

Therefore, it is recommended that ISC:

1. **Working with Human Resources, the Chief Finances, Results and Delivery Officer, and Regional Offices, take steps to assess existing internal human resource needs and capacity for contaminated site management to ensure a consistent level of service to First Nations across the Program.**

2. **Working with First Nations partners and Regional Offices, leverage existing knowledge about First Nations' capacity for contaminated site management to develop options to maximize the sharing of their expertise and to ensure First Nation communities have ongoing access to qualified and dedicated human resources.**

3. **Working with First Nations partners and ISC's performance measurement and data specialists, revise the performance measurement framework to include program results around First Nation's priorities, and update associated data collection instruments to enhance ISC's responsiveness to First Nations' priorities.**

4. **Working with First Nations partners, support the ISC programs responsible to establish and resource an Indigenous business development and procurement strategy, and ensure the socio-economic opportunities from the CSOR Program flowing to Indigenous communities and businesses are maximized.**

5. **Integrate mechanisms to provide funding or support for additional activities that are not currently funded under the CSOR Program, such as pollution prevention efforts, and assessment or remediation work on sites for which ISC does not accept liability.**

Management Response and Action Plan

Project Title: Evaluation of the Contaminated Sites On-Reserve (South of the 60th Parallel) Program

Overall management response

Overview

- This Management Response and Action Plan, developed together with the ISC Evaluation Directorate in March 2024, was developed to address recommendations resulting from the Evaluation of the Contaminated Sites On-Reserve (CSOR) Program.
- The Lands and Environmental Management Branch (LEMB) recognizes the findings outlined in the evaluation regarding the performance and delivery of the Contaminated Sites On-Reserve. Specifically, ISC-LEMB recognizes the need to:
    - strengthen the delivery of the program by identifying gaps and challenges of existing internal human and financial capacity for contaminated sites management;
    - work with First Nations partners to ensure on-going access to qualified and dedicated human resources within their communities;
    - maximize socio-economic benefits from the contaminated sites projects to Indigenous communities and businesses;
    - identify and leverage funding mechanisms to provide financial support for activities not currently funded under the CSOR Program; and,
    - revise and update the Program's performance measurement framework to ensure that it accurately captures and reflects the tangible impact of the CSOR Program on First Nations' priorities.
- This evaluation provides five recommendations to improve the delivery and effectiveness of the CSOR Program. All recommendations are accepted by the CSOR Program, and the attached Action Plan identifies specific activities to move towards meeting these recommendations.
- The evaluation encompasses the timeframe spanning from 2014 to 2019, offering a comprehensive assessment of the CSOR Program's performance and outcomes during this period. Since then, the CSOR Program team has proactively initiated several measures aimed at addressing specific recommendations that were identified through the evaluation process. There are actions from the evaluation's recommendations that will be addressed in the coming years.
- In recognizing the complexity and dynamic nature of the CSOR Program's objectives, there is acknowledgment that certain actions may necessitate additional time, resources, or strategic planning for effective implementation. Over the next 3 years, the CSOR Program commits to address outstanding recommendations in a comprehensive manner. This involves developing specific action plans, collaborating with stakeholders, allocating resources, and ensuring continuous monitoring and evaluation to align with best practices and emerging needs. ISC`s Evaluation team will conduct quarterly reviews of the Management Response and Action Plan, sharing updates with the ISC Performance Management and Evaluation Committee (PMEC) to monitor progress and activities.

Assurance

- The Action Plan presents appropriate and realistic measures to address the evaluation's recommendations, as well as timelines for initiating and completing the actions.

Action Plan Matrix

Recommendations	Actions	Responsible Manager (Title/Sector)	Planned Start and Completion Dates	Action Item Context/Rationale
1.Working with Human Resources, the CFRDO and Regional Offices, take steps to assess existing internal human resource needs and capacity for contaminated site management to ensure a consistent level of service to First Nations across the Program.	We **do** concur. The CSOR Program agrees that assessing existing internal human and financial capacity for contaminated site management within ISC is essential to ensure a consistent level of service to First Nations communities across all regions. Contaminated site management requires specialized skills, prompt responses, and effective coordination. An assessment will help identify any shortcomings, gaps, or areas of improvement in the current capacity, ensuring that First Nations receive uniform and high-quality support. To address this recommendation, the Contaminated Sites On-Reserve Program will: **Action 1.1.** - Collaborate with Human Resources and Regional Offices to conduct a comprehensive review of current staffing levels dedicated to contaminated site management, assess the skills and expertise required for effective site management, and identify any gaps in the existing staffing structure (Q4, 2024-25). **Action 1.2.** Engage Regional Offices to identify any regional variation in capacity and gather regional perspectives on the challenges and opportunities related to contaminated sites management (Q4, 2024-25). **Action 1.3.** Work closely with the finance team to review the current budget allocated for contaminated site management and identify/explore mechanisms to secure necessary funding for staffing (Q4, 2024-25). **Action 1.4.** Work collaboratively with Regional Office to develop and implement targeted training (Q4, 2025-26). Note: It's important to highlight that the CSOR Program team has initiated efforts to address this recommendation since the evaluation period. Specifically, a National Environmental Officer Training Workshop is scheduled for March 5-7, 2024. The training will encompass various topics, including Contaminated Sites Management, Climate	Director General, LEMB	*Start Date: February 2024* *Completion: March 2026* *Action 1.1. March 2025* *Action 1.2. March 2025* *Action 1.3. March 2025* *Action 1.4. March 2026*	**Status:** ☐ Fully Implemented ☒ Partially Implemented ☐ Implementation did not Commence ☐ Obsolete **Update/Rationale:** **As of:** *(Insert Update Here)*

Recommendations	Actions	Responsible Manager (Title/Sector)	Planned Start and Completion Dates	Action Item Context/Rationale
	Change, Impact Assessment, Environmental Review, Solid Waste, First Nations Land Management, and First Nations Inuit Health Branch operations. Collaborating with other programs within LED-ISC, the workshop has been tailored based on input from regional offices to ensure its relevance and effectiveness in addressing identified gaps and challenges.			
2.Working with First Nations partners and Regional Offices, leverage existing knowledge about First Nations' capacity for contaminated site management to develop options to maximize the sharing of their expertise and to ensure First Nation communities have ongoing access to qualified and dedicated human resources.	We **do** concur. The CSOR program agrees with this recommendation as it aligns with the department's commitment to support First Nation communities in building and maintaining the necessary expertise for effective site management and community well-being. Recognizing the diversity among First Nations communities, not every community may require a dedicated contaminated sites technical resource. However, the CSOR Program commits to supporting technical expertise within First Nations organizations that can, in turn, provide assistance to communities in the management of contaminated sites. To address this recommendation, the Contaminated Sites On-Reserve Program will: **Action 2.1.** Review existing knowledge and expertise in contaminated sites management within First Nations and First Nation Organizations by engaging with partners and Regional offices. Leverage existing knowledge to identify areas of expertise, available resources, and capacity gaps (Q4, 2025-26). **Action 2.2.** Develop options to partner internally or with FCSAP, to provide financial resources to enhance the technical expertise within First Nation organizations (Q4, 2026-27). Note: Based on the existing knowledge of Regional Officers, the CSOR Program has identified gaps in technical knowledge and expertise around the contaminated sites management within First Nation communities. The Program began to address this issue Q2 of 2023-24 through discussions with the FCSAP Program while planning for FCSAP Phase V (2025-2030) renewal.	Director General, LEMB	Start Date: **September 2023** *Completion: March 2027* Action 2.1. March 2026 Action 2.2. March 2027	**Status:** ☐ Fully Implemented ☒ Partially Implemented ☐ Implementation did not Commence ☐ Obsolete **Update/Rationale:** **As of:** *(Insert Update Here)*

Recommendations	Actions	Responsible Manager (Title/Sector)	Planned Start and Completion Dates	Action Item Context/Rationale
	Moving forward, the Program plans to enhance its understanding of the needs of First Nation Communities by leveraging existing internal research services and engagement efforts.			
3.Working with First Nations partners and ISC's performance measurement and data specialists, revise the performance measurement framework to include program results around First Nation's priorities, and update associated data collection instruments to enhance ISC's responsiveness to First Nations' priorities.	We **do** concur. The CSOR Program agrees that revising the performance measurement framework and associated data collection instruments is essential for ensuring that the CSOR Program aligns with the priorities of First Nations communities. Adapting the performance measurement framework to include results related to First Nations' priorities and enhancing data collection instruments will enable ISC to better understand, respond to, and evaluate the impact of the CSOR Program in a way that reflects the diverse needs and goals of the communities it serves. To address this recommendation, the Contaminated Sites On-Reserve Program will: **Action 3.1.** Collaborate with Regional offices and First Nations communities to identify specific priorities and expectations of First Nations communities regarding the CSOR Program (Q4, 2024-25). **Action 3.2.** Conduct a review of the existing performance measurements metrics to identify areas where the existing framework may need adjustment or revisions to integrate program results aligned with First Nations' priorities (Q2, 2025-26). **Action 3.3.** As required, update data collection instruments in alignment with the revised performance measurement framework to ensure collected data contributes to informing program success and identifying opportunities for continual improvement (Q4, 2026-2027).	Director General, LEMB	Start Date: **April 2024** Completion: **March 2027** Action 3.1. March 2025 Action 3.2. September 2025 Action 3.3. March 2027	**Status:** ☐ Fully Implemented ☐ Partially Implemented ☐ Implementation did not Commence ☐ Obsolete **Update/Rationale:** **As of:** *(Insert Update Here)*
4.Working with First Nations partners,	We **do** concur.		Start Date: **October 2024**	**Status:** ☐ Fully Implemented

Recommendations	Actions	Responsible Manager (Title/Sector)	Planned Start and Completion Dates	Action Item Context/Rationale
support the ISC programs responsible to establish and resource an Indigenous business development and procurement strategy, and ensure the socio-economic opportunities from the CSOR program flowing to Indigenous communities and businesses are maximized.	The CSOR program agrees with the need to increase the opportunities for First Nations to deliver contaminated sites projects. The Government of Canada has committed to a mandatory requirement to award at least five percent of federal contracts to Indigenous businesses by 2024. The Contaminated Sites On-Reserve Program will review and revise, as needed, existing contracting and procurement policies to support First Nations and Indigenous-owned organizations to deliver their own contaminated sites projects. The capacity of First Nations communities to manage and deliver their own contaminated sites projects varies. While some communities have demonstrated the capacity to manage contaminated sites projects independently, others may require targeted support and resources. The CSOR Program is not a business development program; however, it will support the ISC programs responsible for Indigenous business development by providing necessary resources, expertise, and guidance as required. To address this recommendation, the Contaminated Sites On-Reserve Program will: **Action 4.1.** Proactively identify measures to enable applicable ISC Tendering Policies and guidance to maximize the ability of First Nations and Indigenous-owned organizations to deliver their contaminated sites projects. (Q4, 2025-2026)	Director General, LEMB	Completion: **March 2026**	☐ Partially Implemented ☐ Implementation did not Commence ☐ Obsolete **Update/Rationale:** **As of:** *(Insert Update Here)*
5.Integrate mechanisms to provide funding or support for additional activities that are not currently funded under the CSOR Program, such as pollution prevention efforts, and assessment or remediation work on sites for which ISC does not accept liability.	We **do** concur. The CSOR program acknowledges the current reactive nature of the services provided and recognizes the need for a mechanism to support First Nations in assessing and remediating sites and activities beyond the current eligibility criteria. This will support our commitment to empower First Nations in proactively managing and effectively addressing unique environmental challenges within their communities. To address this recommendation, the Contaminated Sites On-Reserve Program will: **Action 5.1.** Conduct a strategic planning exercise to examine the existing program structure, to identify and prioritize activities	Director General, LEMB	Start Date: **February 2024** *Completion:* *March 2027* Action 5.1. September 2025 Action 5.2. December 2024	**Status:** ☐ Fully Implemented ☒ Partially Implemented ☐ Implementation did not Commence ☐ Obsolete **Update/Rationale:** **As of:** *(Insert Update Here)*

Recommendations	Actions	Responsible Manager (Title/Sector)	Planned Start and Completion Dates	Action Item Context/Rationale
	that are not currently covered by CSOR funding or authorities (Q2, 2024-2025). **Action 5.2.** Review authorities available within other ISC programs, identify potential mechanisms and authorities that could be leveraged to address gaps in CSOR program authorities (Q3, 2024-25). **Action 5.3.** Identify other program funding within ISC that could be leveraged to support priority activities that are not currently funded through CSOR program (Q4, 2024-25). **Action 5.4.** As required, seek additional authorities or funding through formal processes such as the submission of a Memorandum to Cabinet, budget proposal and Treasury Board Submission (Q1, 2026-27). **Action 5.5.** As required, revise CSOR`s Program's Terms and Conditions to reflect the expanded authorities, based on cabinet direction (Q4, 2026-27). Note: The CSOR Program has begun to address this recommendation. More specifically, - In alignment with Action plan 5.1., the CSOR Program is scheduled to conduct a Strategic Planning Exercise on February 6, 2024. This session will bring Regional Environmental Managers and Senior Environmental Officers together to examine the current program structure and identify key program activity needs, including those not currently covered by existing CSOR funding or authorities. - In response to Action 5.2., preliminary work began in Q3 2023-24 by means of developing a crosswalk to identify other ISC program authorities that could be leveraged to address gaps in CSOR program authorities. - In line with Action 5.3., On an ongoing basis CSOR Program seeks surplus funding within the Directorate that can be used to support unfunded projects and/or initiatives with the CSOR Program.		Action 5.3. March 2025 Action 5.4. June 2026 Action 5.5. March 2027	

1. Introduction

The overall purpose of the evaluation was to examine the Contaminated Sites On-Reserve (South of the 60th parallel) Program (CSOR Program), in accordance with the 2016 *Policy on Results* and the *Financial Administration Act*. The evaluation initially covered activities from April 2014 to March 2020. The scope of the evaluation was expanded to also cover activities from April 2020 to August 2023 to measure the early impacts of the COVID-19 pandemic on the program's performance. The key issues examined were relevance, performance (effectiveness and efficiency), lessons learned, cross-cutting issues (the COVID-19 pandemic and climate change), and progress toward service transfer.

2. Program description

2.1 Background

The CSOR Program is a multi-phased national initiative that supports the assessment and remediation of contaminated sites on reserve lands and on any other lands under Indigenous Services Canada's (ISC)'s custodial responsibility. ISC Regions deliver the program by identifying, assessing, and remediating or risk managing contaminated sites under the Department's responsibility in a manner consistent with the *Contaminated Sites Management Policy,*[3] *Federal Contaminated Sites Action Plan (FCSAP) Decision-Making Framework,*[4] and *"A Federal Approach to Contaminated Sites."*[5]

Contaminated sites on reserve are eligible for CSOR Program funding only when the Government of Canada accepts responsibility and the associated financial liabilities for the contamination. The Government of Canada does not necessarily take responsibility for all contaminated sites on lands under its custodial responsibility as it follows the "polluter pays" principle. The polluter pays principle is a principle under which users and producers of pollutants and wastes should bear the responsibility for their actions. The purpose of this principle is to ensure that the party responsible for environmental harm takes the necessary steps for the remediation of the environmental damage. ISC interviewees emphasized that the Government of Canada is solely, legally liable for the sites for which it has accepted responsibility. Sites that meet the program's eligibility are then funded and managed under the CSOR Program.

The decision process to determine which eligible to be funded under the CSOR program begins when regional offices put forth a workplan to Headquarters for approval

[3] Indian and Northern Affairs Canada. (2002). *Contaminated Sites Management Policy*. https://www.sac-isc.gc.ca/eng/1100100034643/1612549431211
[4] Environment and Climate Change Canada. (2016). *Federal Contaminated Sites Action Plan (FCSAP): Decision-Making Framework (DMF).* https://publications.gc.ca/collections/collection_2017/eccc/En14-89-2016-eng.pdf.
[5] Contaminated Sites Management Working Group. (1999). *A Federal Approach to Contaminated Sites*. https://www.canada.ca/content/dam/eccc/migration/fcs-scf/8DF3AC07-5A7D-483F-B263-6DE03104319A/fa-af-eng.pdf

based on available funding. When a site is approved, it is incorporated into the national CSOR Program workplan. Headquarters then assigns available budgets and, when financial requests for sites from all regions are higher than available budgets, a national prioritization is applied. Headquarters continuously works with regions to find any additional funding required.

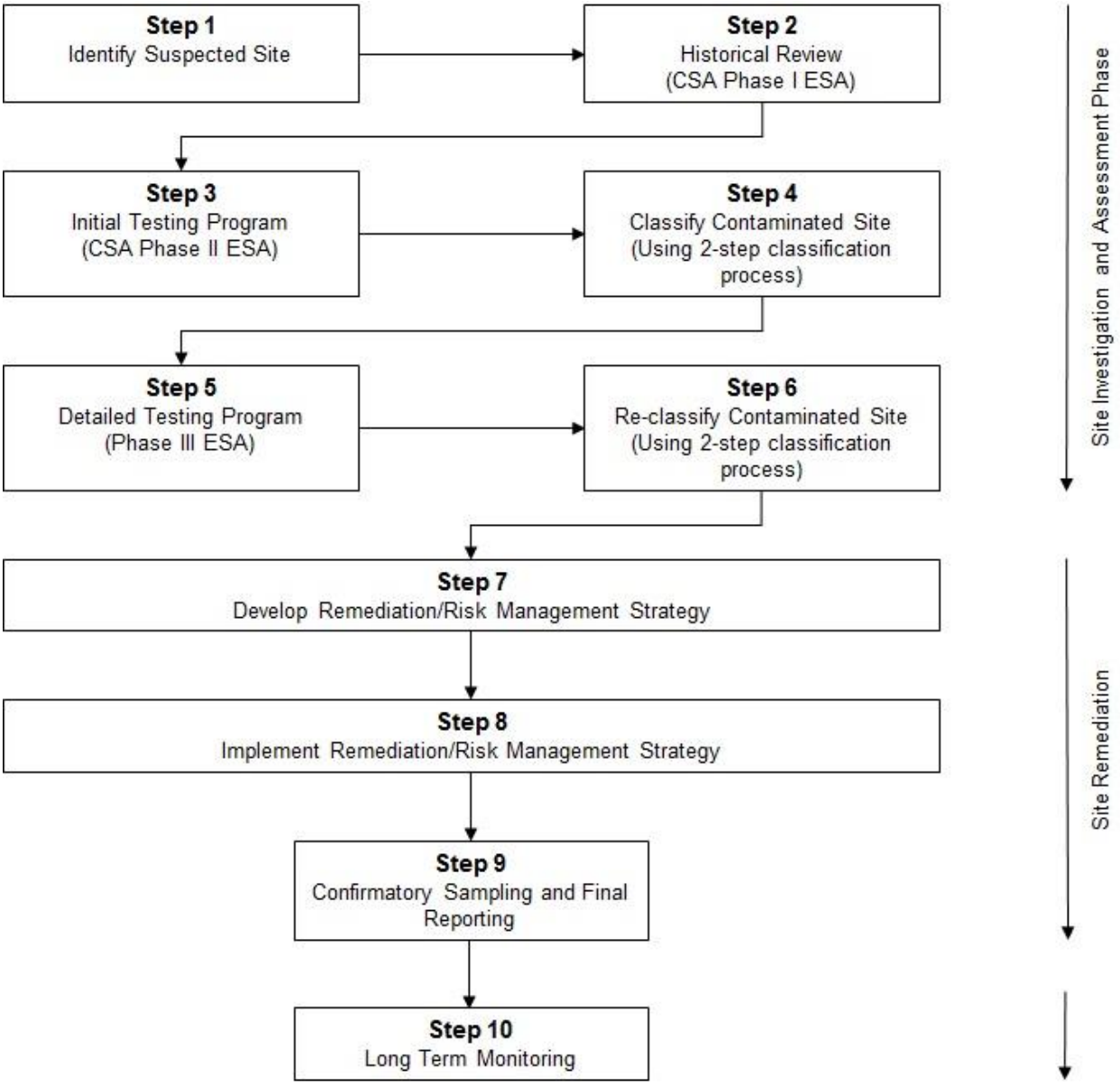
First Nations may indicate a potential suspected site on their reserve and the region can elect to include or tentatively include the project on the workplan. When funding for the project is confirmed, the First Nation can then seek estimates for that work and submit a proposal to ISC and enter into a funding agreement. However, First Nation priorities during work planning may be constrained by the available funding and capacity of the ISC region to deliver. When sites are approved, ISC then works with First Nations to run a procurement process to hire consultants who assess and remediate sites. Upon approval of the consultant's proposal, ISC transfers funds from the CSOR Program through an amendment to the Nation's funding agreement with ISC. Nation then enters into the contract, and ISC works with the Nation to oversee the work of the consultant.

The CSOR Program follows FCSAP's 10-Step Federal Approach to Contaminated Sites, which is a decision-making framework that outlines the activities and requirements for addressing all federal contaminated sites in Canada.[6] The ten steps are outlined below in Figure 1. Steps 1 to 6 are considered "assessment" activities. If contamination is found, sites move to the remediation phase during Steps 7 to 10, which are considered "remediation" activities. Sites can be closed if they require no further action, and this can occur during assessment when there is no contamination found that poses environmental impacts or human health threats, or following the completion of remediation activities.

Usually in step 6 of the assessment phase, sites are prioritized for remediation based on the National Classification System for Contaminated Sites. [7] According to this system, sites can fall under Class 1 (High Priority for Action), 2 (Medium Priority for Action), 3 (Low Priority for Action), N (Not a Priority for Action), or INS (for sites that require further information before they can be classified). Potentially contaminated sites can also be identified as "suspected" if there has not yet been environment site assessments conducted to classify the site.

[6] Environment and Climate Change Canada. (2016). *Federal Contaminated Sites Action Plan (FCSAP): Decision-Making Framework (DMF).* https://publications.gc.ca/collections/collection_2017/eccc/En14-89-2016-eng.pdf
[7] Canada Council of Ministers of the Environment. (2008). *National Classification System for Contaminated Sites*. https://www.ccme.ca/en/res/ncscs_guidance_e.pdf

Figure 1. Flow chart of the FCSAP 10-Step Site Management Process



Source: CSOR Program Guide (2016)

Key players

Implementation of ISC's CSOR Program is supported by Environment and Climate Change Canada's FCSAP, which provides funding for the CSOR Program on a cost-share basis. The FCSAP was established in 2005 as a 15-year program with funding of $4.54 billion from the Government of Canada. The program was renewed for another 15 years (2020 to 2034) with $1.16 billion announced in Budget 2019 for the first five years (Phase IV, 2020 to 2024).[8]

[8] Government of Canada. (n.d.). *Federal Contaminated Sites Action Plan*. https://www.canada.ca/en/environment-climate-change/services/federal-contaminated-sites/action-plan.html

The FCSAP provides the majority of funding while ISC's Regional Operations' Capital Facilities and Maintenance Program provides the balance. More specifically ISC contributes 20% of assessment costs and 15% of remediation costs for its projects, unless the project's value is $90 million or higher, in which case cost-share requirement for remediation is waived. During the evaluated period, ISC did not have any projects that would meet the $90 million threshold to waive cost-share requirements.

ISC's Lands and Economic Development (LED) Sector coordinates and flows funding to First Nations, liaises with the FCSAP Secretariat and Treasury Board Secretariat (TBS), and works with First Nations to develop and secure contracts for work to be undertaken on reserve.

The roles and responsibilities for implementing the CSOR Program can be broadly divided into three categories:

- First Nation recipients, who are responsible for managing ISC funding through grants and contributions funding agreements, and running a 'request for proposals' procurement process where they will select and oversee the work of a qualified consultant;
- ISC Regional CSOR Program staff, who manage and deliver on individual projects with the support of First Nations. Regional delivery models vary, and in some regions the link between LED Environment Units and Capital/ Infrastructure staff (Capital or Technical Services Officers) is closer than in others; and
- ISC Headquarters, who are responsible for the effective administration and oversight of the program, providing national level reporting and coordination with federal partners under the FCSAP Horizontal Initiative.

Context

Information on all known federal contaminated sites is contained in the Federal Contaminated Sites Inventory (FCSI). FCSI is a searchable online database managed by the TBS and includes a public-facing component. This component enhances accessibility, allowing the public to access relevant information about contaminated sites across the country.

As of March 2020, FCSI listed 23,714 contaminated sites from all custodian departments, including ISC. Of these, 1,795 were suspected sites, 4,860 sites were being assessed or remediated and 17,059 sites were closed and require no further action.[9]

The CSOR Program manages information related to its sites through the Integrated Environmental Management System (IEMS), which is an internal-facing project management database overseen by CSOR Program staff within ISC. IEMS facilitates

[9] Government of Canada. (2022). *Canadian Environmental Sustainability Indicators: Federal Contaminated Sites Action Plan (FCSAP) - Progress Towards Site Classification and Risk Management Objectives (2020)*. https://publications.gc.ca/collections/collection_2022/eccc/En1-43-2020-eng.pdf

the input of the CSOR Program's information to FCSI. IEMS includes site-specific detailed work plans and quarterly site reports that inform both planning and reporting processes.

Between April 2014 and March 2020, the ISC CSOR Program managed 1,013 active contaminated sites on reserves south of latitude 60˚N. On March 31, 2020, the reported liability of these sites was estimated at $249.1 million. Table 1 below shows the distribution of sites in the IEMS across the site classifications by number, percentage of total sites, and percentage of total expenditures made by the CSOR Program.

Table 1. Number of sites in IEMS with expenditures by site classification, between April 2014 and March 2020

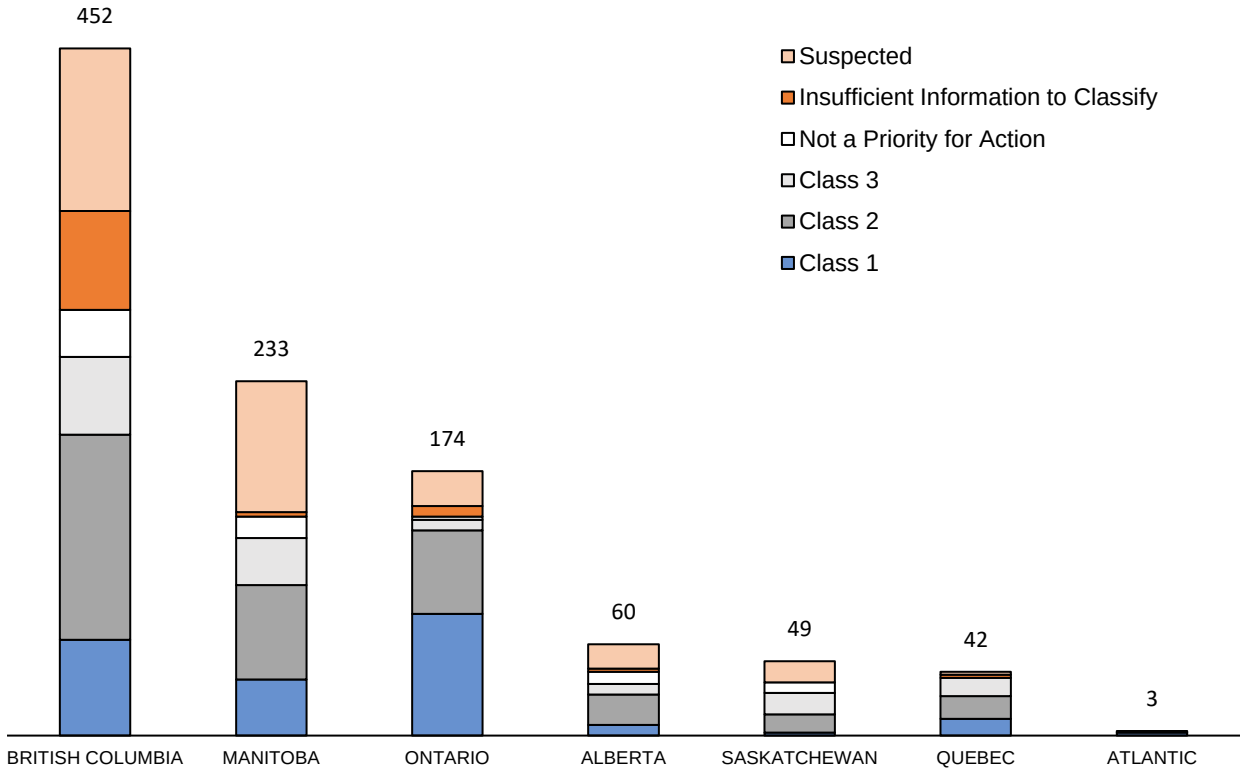
Site Classification	Number of Sites	Percentage of Total Sites	Percentage of Total Expenditures
Class 1	202	20%	73%
Class 2	299	30%	20%
Class 3	122	12%	2%
Insufficient information to classify	79	8%	1%
Not a priority for action	63	6%	1%
Suspected	248	24%	3%
Grand Total	**1,013**	**100%**	**100%**

Source: Integrated Environment Management System (IEMS), ISC as of August 18, 2023

The CSOR Program's inventory of sites were spread throughout Canada's provinces, which is shown in Figure 2 below. Among the 1,013 contaminated sites that had CSOR expenditure between April 2014 and March 2020, the majority were in British Columbia (45%), followed by Manitoba (23%), and then Ontario (17%).

Among the Class 1 sites with expenditure, sites in Ontario made up the greatest share, with 40% (80 of 202) of all Class 1 contaminated sites nationally. Regarding sites that were either suspected or had insufficient information to classify them between April 2014 and March 2020, Manitoba, Saskatchewan, Alberta, and British Columbia had a higher representation of sites compared to other regions.

Figure 2. Sites by province and Class, between April 2014 and March 2020 (n=1,013)



Source: Integrated Environment Management System (IEMS), ISC as of August 18, 2023

2.2 Program narrative

The CSOR Program is housed within the Lands, Natural Resource and Environment Management program suite,[10] in the LED sector. The logic model for the Lands, Natural Resources and Environmental Management program suite can be found in Appendix A.

The program suite's overall stated objective is "communities develop innovative policy, process, and system improvements to enhance conditions to increase the reserve land base, support sustainable management of land, environment and natural resources that leverages community and economic development opportunities, and facilitates greater First Nation independence/self-sufficiency in managing these assets." The CSOR Program is expected to contribute to the expected outcomes below by supporting the assessment and remediation of contaminated sites on reserve lands and on any other lands under ISC's custodial responsibility.

The two relevant **short term/immediate outcomes** include:

- Legal obligations related to land are fulfilled;

[10] More information on the other sub-programs or initiatives that fall under this program inventory, but which are outside the scope of this evaluation, can be found in Appendix A.

- Environmental conditions on reserve are improved.

The three **intermediate outcomes** have been identified as:

- Indigenous lands, natural resources and environment are sustainably managed;
- Indigenous communities pursue land and natural resource based economic development; and
- Environmental, human health and safety risks are reduced in Indigenous communities.

The **ultimate outcome** is that “Land and resources in Indigenous communities are sustainably managed.[11]

[11] Lands and Economic Development. 2022. *Lands, Natural Resources & Environmental Management Performance Information Profile*. Indigenous Services Canada.

3. Evaluation methodology

3.1 Scope and evaluation issues

This evaluation covers the period from April 2014 to March 2020 as per Treasury Board requirements[12] and assesses the Program's relevance and performance (effectiveness and efficiency). However, it also considered activities undertaken from April 2020 to August 2023 relevant to the impact of the COVID-19 pandemic on the program. At the request of the CSOR Program, the evaluation team placed particular attention on potential preventative measures (i.e., capacity building, training, best practices, etc.) that the program can use as an entry point to further enhance the CSOR Program.

As per ISC's Five Year *Departmental Evaluation Plan 2023-2024 to 2027-2028*, a number of cross-cutting issues are considered in the development of each evaluation: service transfer; Gender-based Analysis (GBA) Plus; Indigenous children and families; impacts of the COVID-19 pandemic; and, climate change. In addition to COVID-19, this evaluation put considerable emphasis on service transfer and climate change. Given the nature of the CSOR Program and the information and data held by ISC, discussions surrounding GBA Plus and Indigenous children and families are more limited, as the findings tended to focus less on intersectionality and impact at the individual level, and more on the holistic and intergenerational relationship of First Nation's lands and community well-being.

A full list of the evaluation issues and questions are available in Appendix B.

3.2 Design and methods

The evaluation was led by the Evaluation Directorate within ISC. The Methodology Report was finalized in March 2023, with primary data collection occurring from March to August 2023.

The evaluation relied on a mixed-methods approach that included the following lines of evidence: a document and literature review; interviews with 21 current and former CSOR Program staff; interviews with 20 individuals from First Nations communities, including their hired consultants; 34 surveys completed by community-level funding recipients; 7 community site visits; and an analysis of quantitative administrative data held by the Environment Directorate at ISC Headquarters. When discussing the qualitative responses provided by both interviewees and survey respondents, the evaluation team used a 'semi-quantification' approach outlined in Table 2 by describing responses based on the frequency of each response. For a more detailed breakdown of the methodology see Appendix B.

[12] Treasury Board Secretariat (2016). *Policy on Results*. https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=31300.

Table 2. Semi-quantified qualitative response terms

Term used	One	A few	Some	Many	Majority
Number of responses	1	2-3	4-10	11-19	≥20

3.3 Limitations

There are some limitations as to how the data collected in this evaluation can be understood and applied broadly. The key limitation of this report resulted from limited engagement with First Nations, as due to time and resource constraints the evaluation team did not meet with First Nation representatives in all regions. To address this limitation, the evaluation team did travel to British Columbia, Saskatchewan and Quebec to meet with 20 interviewees from First Nations and the consultants and project managers they have hired, and deployed a survey to collect input from First Nations across all provinces. However, the survey returned a low response rate (9%) and a low completion rate (4%).[13] The low response rate and associated small sample size limits the generalizability of the quantitative survey data. Because of this, the quantitative survey data has not been used to develop the evaluation findings while the qualitative, long-form written responses from the survey have been retained and included throughout the findings. With regard to the figures and charts throughout the report, information was taken from the IEMS as of August 2023, noting that the IEMS information is not time-stamped and reports that are generated on a different date may have different information due to reporting lags and ongoing data cleaning. For more information on the limitations and mitigation strategies employed see Appendix B.

3.4 Indigenous engagement

ISC Evaluation is increasingly emphasizing models of co-development and co-creation with Indigenous partners in all evaluation projects. In the short- to medium-term, this includes ways to integrate Indigenous evaluation expertise, knowledge, world views and/or Indigenous capacity development at key points in evaluations. The ISC Evaluation team sought input on the evaluation's methodology and data collection plan from First Nations partners in the lands sector, and engaged a selection of First Nation land management experts to review the preliminary findings of the evaluation. The team also worked directly with several communities in Quebec, Saskatchewan, and British Columbia to understand the realities of the CSOR Program at the community level and get a first-hand understanding of the impacts on land and people.

[13] The survey was sent to 336 email addresses representing the 71 First Nation communities who had received funding for CSOR projects over the scope of the evaluation. 34 individuals responded to the survey, and 14 surveys were fully completed.

4. Findings

Relevance

The evaluation sought to understand what needs the CSOR Program addresses and whether the program is still relevant to address those needs, and found that there is a continued and ongoing relevance for the CSOR Program.

KEY FINDING #1: The CSOR Program remains relevant as it is aligned with Canada-wide commitments and priorities, and is key to addressing Canada's legal obligations on reserve and to supporting the exercise of Indigenous rights over their lands and resources.

Over the scope of the evaluated period, the operating context of the CSOR Program has shifted significantly. Since April 2014, the Government of Canada has made new commitments related to renewing Canada's relationship with Indigenous Peoples,[14] including with respect supporting self-determination over their lands and resources.

Canada passed the *United Nations Declaration on the Rights of Indigenous Peoples Act* in 2021 and published the related *United Nations Declaration on the Rights of Indigenous Peoples Act Action Plan*[15] in 2023. Article 29 of the *United Nations Declaration on the Rights of Indigenous Peoples* speaks to the Indigenous right to the conservation and protection of their lands.[16] Citing that article, Canada's *Action Plan* includes a commitment to:

> *Support the environmental integrity of reserve lands by addressing and preventing the contamination of reserve lands, building effective community-based waste management solutions that include proper disposal of hazardous and plastic waste. (Indigenous Services Canada)*

According to many ISC interviewees, the number of suspected and contaminated sites in the ISC inventory has continued to rise with new reports of suspected sites. As reserves are federal lands, provincial laws and regulations related to contaminated site management do not apply, and the CSOR Program is the main mechanism to address contaminated sites on First Nations' lands. Some First Nation interviewees shared that they see the work to clean up contamination through the CSOR Program as upholding Canada's ongoing obligations to First Nations related to environmental liabilities on reserve.

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[14] 42nd Parliament of Canada. (2015). *Speech From the Throne*. https://www.ourcommons.ca/Content/House/421/Debates/002/HAN002-E.PDF.

[15] Department of Justice Canada. (2023). *The United Nations Declaration of the Rights of Indigenous Peoples Act Action Plan: Ajuinnata*. https://www.justice.gc.ca/eng/declaration/ap-pa/ah/pdf/unda-action-plan-digital-eng.pdf.

[16] United Nations. (2007). *United Nations Declaration on the Rights of Indigenous Peoples*. https://www.un.org/development/desa/indigenouspeoples/wp-content/uploads/sites/19/2018/11/UNDRIP_E_web.pdf

It is also worth noting that Budget 2016[17] highlighted the government's priorities with respect to contaminated sites by providing a two-year stimulus of $216.1 million and renewing the FCSAP for an additional fifteen years. The continuation of FCSAP beyond its initial mandate highlights the related need for the CSOR Program to continue managing liabilities related to contaminated sites on reserve.

There have been a growing number of First Nations exercising their self-governance by initiating the process to sign onto the *Framework Agreement on First Nation Land Management.*[18] This process requires the federal government to undertake Environmental Site Assessments (ESAs) on all reserve lands implicated under the *Framework Agreement*. The CSOR Program is responsible for coordinating ESAs and the increase in the demand for this process can also increase the demands on the CSOR Program's limited resources, further underscoring the continued need for the Program.

KEY FINDING #2: There is a continued need for the CSOR Program as it benefits Indigenous communities holistically, with a particular consideration for vulnerable populations.

The CSOR Program has a larger impact than just remediating land, as for many Indigenous communities, connection to the land is also highly related to physical, socio-economic and cultural well-being.[19] The evaluation found that the CSOR Program is benefitting First Nation communities holistically, through economic, health, and social impacts, highlighting the Program's alignment with ISC's current core responsibility, to support Indigenous well-being and self-determination.[20] Some First Nation interviewees spoke to the limited reserve land base in their communities, and how the CSOR Program can reduce some impacts of land loss by supporting communities to clean up and reclaim land that was previously unusable due to contamination. Some First Nation and ISC interviewees also shared that the newly available spaces created economic benefits for First Nations by remediating and freeing up land for development or providing assurance to development partners that the land is usable, and through First Nation participation in the business process of contaminated site projects.

The evaluation found through conversations with internal program staff and communities, that projects to clean up contaminated sites also generally provide benefits to all community members, particularly vulnerable populations, with consideration for traditional and community-based knowledge. Many ISC interviewees, along with a few First Nation interviewees, expressed that assessment and remediation

[17]Government of Canada. (2016). *Budget 2016*. "Chapter 4 - A Clean Growth Economy." https://www.budget.canada.ca/2016/docs/plan/ch4-en.html.

[18]Lands Advisory Board and Resource Centre. (2018). *Framework Agreement on First Nation Land Management*. https://labrc.com/wp-content/uploads/2023/03/Framework-Agreement-on-First-Nation-Land-Management-Dec-2022.pdf

[19] Banwell, C., Napoli, M., Al-Yaman, F., & Fearnley, E. J. (2020). *Health and social concerns about living in three communities affected by per- and polyfluoroalkyl substances (PFAS): A qualitative study in Australia* (p. 14).

[20] Indigenous Services Canada. (2023). *Indigenous Services Canada: 2023-24 Departmental Plan*. https://www.sac-isc.gc.ca/eng/1666289629121/1666289645507

projects not only benefit the entire community but particularly provide benefits to the most vulnerable, such as Elders, youth, and people experiencing homelessness. Many First Nation interviewees shared their concern for pregnant women residing near contaminated sites and suggested that they may experience deeper impacts than other community members. During a site visit, one First Nation interviewee demonstrated to the evaluation team how the path to the community's school from a residential area of the reserve passed through a former gas station that had become contaminated, and shared that the Nation's children had to pass through the area on their way to school. The same interviewee questioned the mental health impacts of walking through that site every day and stressed the importance of showing care for the land and for the broader community.

Spotlight on impacts to children and families

At Lac La Ronge Indian Band, the evaluation team heard that the risk of contamination at one defunct gas bar is higher than reported, because of its proximity to residential property and because it is along a path that children take to walk to school. The pollution was created by the 3rd party owners and operators of the gas bar, and they cannot be made to pay for the remediation of the site.

The evaluation team heard that, given that First Nations people tend to hold specific worldviews which prioritize the well-being of future generations, engagement with community members to incorporate traditional knowledge and community perspectives is typically undertaken by First Nations rather than by ISC. These findings were repeatedly shared with the evaluation team through interview conversations, but could not be supported by specific project outcomes as disaggregated data on community benefits was not collected and thus not available.

Achieving results

KEY FINDING #3: The CSOR Program has made progress in achieving its objectives to remediate known high-risk sites and reduce risks to public health and safety, while also opening First Nations' land up for future development. Over the scope of the evaluation, federal liabilities reduced with the completion of projects and simultaneously rose due to increasing project costs as well as the addition of new sites with liabilities via assessments.

The CSOR Program is expected to contribute to the ISC departmental result, "Indigenous communities have sustainable land management and infrastructure."[21] The CSOR Program Guide (2016) operationalizes the Program's logic model by defining the following three objectives:

1. Federal liabilities related to contaminated sites are reduced;
2. Risk to public health and safety is decreased; and
3. First Nation's land becomes available for development.

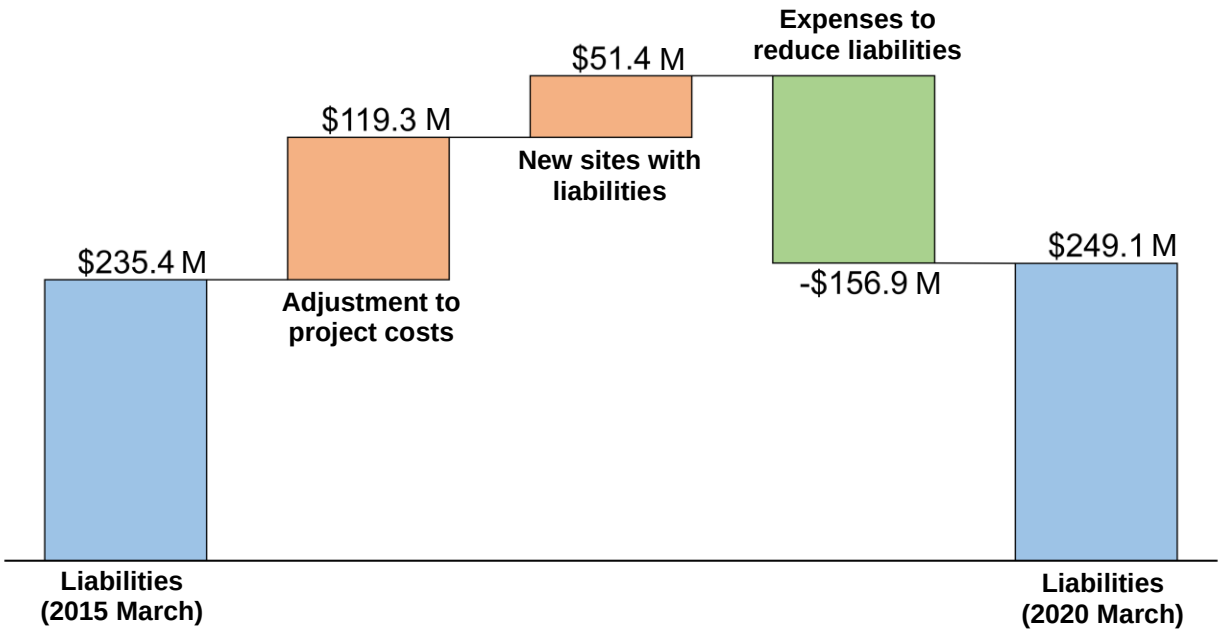
In general, the evaluation found that the CSOR Program is achieving results under these objectives, though progress may be easier to observe for the objectives related to developable land and decreased risks to health and safety than for the reduction of federal liabilities.

The evaluation found that, despite annual spending to reduce liabilities, the addition of new sites combined with adjustments to project costs have caused federal liabilities to increase over the scope of the evaluation. Figure 3 shows that from March 2015[22] to March 2020, the total expenditures made by the CSOR Program to reduce liabilities amounted to $156.9 million. However, despite the CSOR Program's efforts, federal liabilities still increased overall by approximately $13.7 million. This increase was attributed to the addition of more than $50 million in new liabilities discovered after assessment activities and approximately $120 million in rising projects costs due to variety of factors, including the discovery of the actual extent of contamination during the remediation process. Despite the Program's financial efforts, the rising liabilities may indicate a need for additional financial support to address rising project costs, and the addition of new sites to the inventory, which can be due to the discovery of previously unreported contamination, or the recontamination of known sites. Discussion about the potential contribution of prevention and enforcement activities to reduce liabilities can be found in Finding 4.

[21] Indigenous Services Canada. (2023). *Indigenous Services Canada: 2023-24 Departmental Plan*. https://www.sac-isc.gc.ca/eng/1666289629121/1666289645507

[22] Financial data from 2014-15 was not available.

Figure 3: CSOR Liabilities from March 2015 to March 2020 (in Millions)

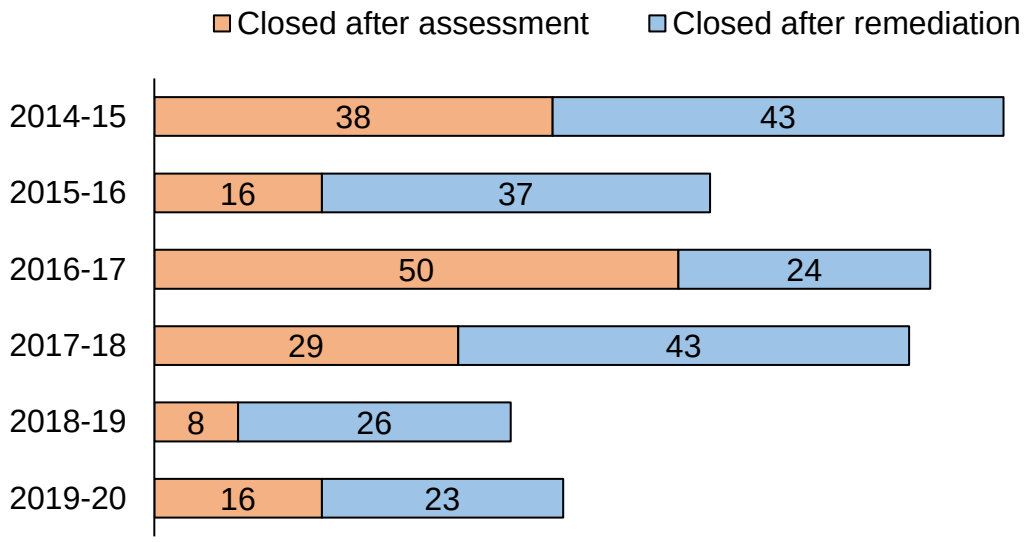


Source: Lands and Environmental Management Branch, ISC as of August 18, 2023

Despite this financial gap, the evaluation found that the CSOR Program made some progress in addressing the sites in its inventory. From April 2014 to March 2020, the CSOR Program contributed $285.5 million in expenditures on 1,013 sites.

Over the scope of the evaluated period, between April 2014 and March 2020, Figure 4 shows 353 contaminated sites were closed, with at least 34 sites closed each year, demonstrating the progress the CSOR Program has made to ensure that contaminated sites on reserve are addressed.

Figure 4: Sites closed between April 2014 and March 2020 (n=4,027)[23]



Source: Integrated Environment Management System (IEMS), ISC as of August 18, 2023

For the second expected outcome, the evaluation found that where CSOR projects occur, they do appear to effectively contribute to a decreased risk to public health and safety. One measure of the Program's success in meeting this result is its effectiveness at remediating or containing high-risk (Class 1) contaminated sites. The evaluation found that the CSOR Program is achieving its expected results consistently in this regard.

Between April 2014 and March 2020, the CSOR Program prioritized high-risk sites and directed 73% of the total program expenditures over this time toward these sites, in line with the site eligibility criteria from FCSAP Phase III. The CSOR Program made expenditures to conduct remediation activities on 32% (78 out of 245 Class 1 sites) in the CSOR inventory from April 2018 to March 2019, which increased to 41% (80 out of 197 Class 1 sites) for the following period from April 2019 to March 2020.[24] This exceeds the 29% target set out in the 2019-20 Departmental Plan and Results Report.[25]

Figure 5 shows that the number of Class 1 sites that had expenditures for remediation activities during previous fiscal years were similar to 2018-19 and 2019-20, ranging from 74 to 89. By assessing the classification of contamination and prioritizing high-risk sites for remediation, the CSOR Program made efforts to address health and safety concerns before other interests. In particular, many ISC interviewees reported that the risks to public health and safety were reduced when CSOR projects could occur, through

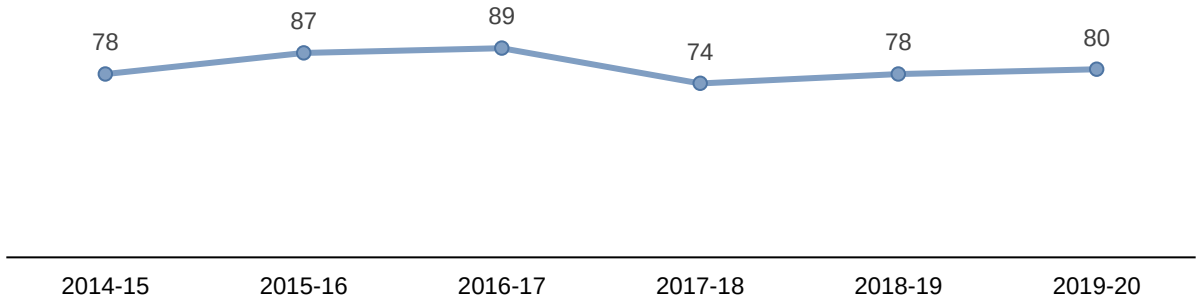
[23] For Figure 4 only, data includes sites that received funding before April 2014, but closed by March 2020.

[24] Data for 2014-15 to 2017-18 was not available as the CSOR Program was restructured during 2017-18 and the inventory of contaminated sites was divided between the CSOR Program and the Northern Contaminated Sites Program at Crown-Indigenous Relations and Northern Affairs Canada.

[25] Indigenous Services Canada. (2020). *Departmental Results Report 2019 to 2020.* https://www.sac-isc.gc.ca/eng/1603722953624/1603722975586

identification and assessment activities that allow for better community planning surrounding suspected sites, as well as through remediation activities. First Nation interviewees generally concurred that projects had a positive impact on the well-being of their communities, and additionally emphasized the mental health benefits associated with the CSOR Program's projects.

Figure 5: Number of class 1 sites with expenditures for remediation between April 2014 and March 2020



Source: Integrated Environment Management System (IEMS), ISC as of August 18, 2023

The CSOR Program is intended to support economic and community development projects on reserve, ensuring that First Nation's land becomes available for development. The evaluation found that, while there is no detailed empirical data and limited reporting on this outcome, there is strong anecdotal evidence to suggest the CSOR Program is achieving this objective. During a community site visit, the evaluation team heard that in one community, the contaminated lands may be used as a campground to teach traditional practices to youth in the community. On another community site visit, the evaluation team heard that an affordable housing development was being built on a former contaminated site. One ISC interviewee shared that sites which are cleaned "rarely sit around for very long" and the evaluation team heard that some cleaned sites are now being used to build schools. Some ISC interviewees also shared their perception that First Nations have an increasing awareness of the economic development opportunities related to CSOR projects, and discussed how the interests of private sector developers can influence a community's desire to prioritize the clean up of a contaminated site in order to begin development.

Spotlight on the availability of land

During a community site visit to Lac La Ronge Indian Band, the evaluation team was shown a defunct gas bar creating hydrocarbon contamination in the soil. The evaluation team heard that the contamination from this site threatens to pollute the community's water table, but remediation poses a challenge as the contamination sits on top of a burial site which could be disrupted by excavation.

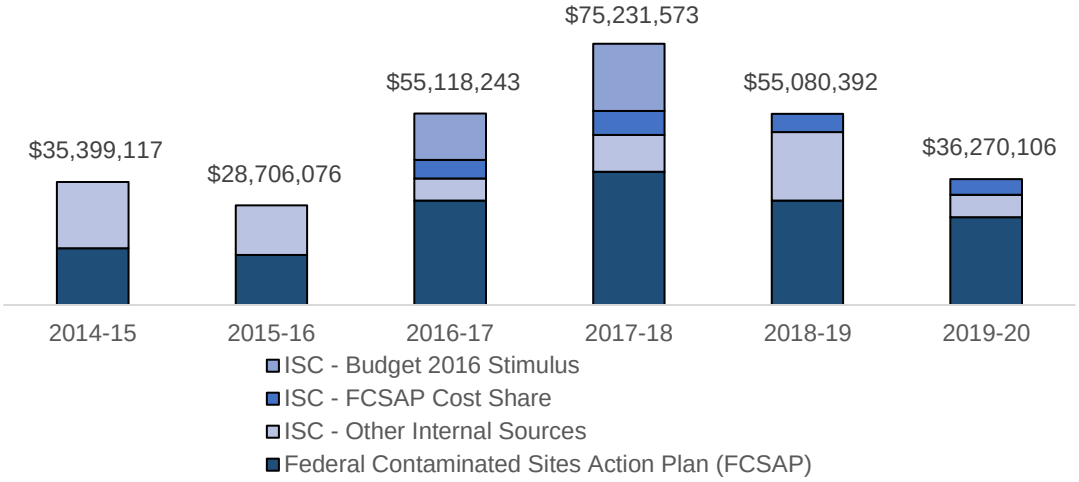
The evaluation team was shown the contaminated gas bar's location near the Montreal River, which is rich in history and a prime area for potential development and community enjoyment.

Challenges

KEY FINDING #4: The main challenges in delivering the CSOR Program lie in both the amount and the sources of funding. Particularly, reliance on the Federal Contaminated Sites Action Plan's funding structure creates challenges for ISC to respond to its own unique context in terms of both the types of activities undertaken and the processes to fund activities; and there is a greater demand for the Program than the current budget can address.

The CSOR Program receives most of its funding from the FCSAP, on a cost-share basis. From April 2014 to March 2020, 54% of total funding for the CSOR Program was sourced from FCSAP, with an additional 8% from the internal ISC cost-share component. Figure 6 below shows contributions from different funding sources toward CSOR projects over the period of the evaluation. To note, ISC internal departmental funds include the Budget 2016 stimulus, the ISC contributions to the FCSAP cost-share, and other ISC internal sources. Figure 6 demonstrates that while ISC was able to direct a larger share of funding towards the CSOR Program with the Budget 2016 stimulus, the CSOR Program generally relies on the larger contributions of the FCSAP program.

Figure 6: Funding Sources for CSOR Expenditures from April 2014 to March 2020



Source: Integrated Environment Management System (IEMS), ISC as of August 18, 2023

Unique context

A majority of ISC interviewees agreed that the FCSAP funding is an important component of the CSOR Program, and that the funding creates opportunities to assess and remediate sites that ISC could not otherwise afford to address. There are, however, some challenges associated with relying on the FCSAP funding structure. FCSAP is structured to support a variety of federal departments and agencies to reduce liabilities related to contaminated sites, and ISC, along with Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC), has a unique context that is not common to other custodians under FCSAP. One of the major challenges is that for other custodial departments, the control over the contaminated sites rests with that department. Once a site has been assessed and remediated, it can be 'closed' and there is a low risk for recontamination due to future misuse. As well, in many instances, it is the custodian department who was responsible for creating the contamination in the first place, and the custodian department is aware of the suspected contamination. In contrast to other custodian departments, ISC (and CIRNAC) do not have control over contaminated sites, as the management of reserve lands is primarily the responsibility of First Nations. New contamination may arise due to new activities caused by third parties, but also older, previously unreported contaminated sites are still being discovered.

This has meant that while other custodians experienced a sharp rise in liabilities with the initial FCSAP phases assessments and then have seen a reduction over time, for ISC and CIRNAC, there are new suspected sites reported year after year. While the FCSAP Secretariat has appropriately responded to the bulk of its custodians by focusing its funding support on remediation rather than assessment in FCSAP Phase III (2016 to 2019) and Phase IV (2020 to 2024), this has left ISC in a position where the funding structure is no longer meeting the unique needs and demands of the CSOR Program. While specific limitations related to funding are outlined throughout the rest of this section, more information on the impacts of the relationship between FCSAP and the CSOR Program is discussed in Finding 9.

Inadequate funding

Overall, the evaluation found that there is a greater demand for the CSOR Program than the available funding can address. ISC interviewees often mentioned that ISC lacked the funds to satisfy FCSAP cost-share requirements. Because of inadequate access to funding, First Nations are consistently unable to assess and remediate all the contaminated sites within their jurisdiction. There are specific requests from both ISC staff and First Nation interviewees for the CSOR Program's funding to reflect the increase in costs (due to the COVID-19 pandemic, climate change, inflation, etc.) and the high costs to mobilize equipment and consultants in the north and in remote communities.

ISC interviewees mostly emphasized the insufficiency of CSOR Program funds available for assessment. Between April 2014 and March 2020, 10% of CSOR expenditures were directed to assessment activities, while 90% was directed towards remediation activities. While some regions and communities were able to secure funding from other sources to assess sites, this was on an ad hoc basis. The challenge related to inadequate assessment funding stems from an overall insufficiency of ISC funds to fill the gap between the CSOR Program's needs, and the FCSAP funding's prioritization of remediation over assessment.

Without funding to assess the expected remediation cost of sites that are suspected to be contaminated, the Program and communities are not able to comprehensively plan and budget for future remediation. On one hand, some interviewees mentioned that the extent of contamination is often more than expected because of a lack of or out-dated of assessment, resulting in remediation costs that are over-budget. On the other hand, some sites do not require any remediation at all, possibly resulting in the artificial inflation of the CSOR Program's inventory of sites and the community' unnecessary concern about contamination. Among the sites that closed between April 2014 and March 2020, 44% of sites (157 out of 353) closed without any remediation.

Because FCSAP prioritizes sites that have been assessed to be high risk, a few regional officers also shared that insufficient assessment funding hindered the ability of First Nations to secure funding for the high number of suspected sites on their reserve land. During the evaluated period, funding for the remediation of sites was also highlighted by a few First Nation interviewees as inadequate, as the insufficient funds for remediation resulted in delays between the assessment and remediation for some sites that were not prioritized for funding, but which still impacted their communities.

Annual funding

Some First Nations interviewees and survey respondents explained that ISC's allocation of funds on an annual rather than multi-year basis hindered long-term comprehensive planning in their communities. In order to develop a community plan for the assessment and remediation of their contaminated sites, First Nations requested that the FCSAP Assistant Deputy Minister's Committee define a multi-year budget, indicating that this would have the dual benefit of facilitating multi-year contracts with consultants and

support the self-determination of First Nations.[26] As the program does not have dedicated and permanent A-base funding,[27] the CSOR Program secured its funding from the Capital and Facilities Maintenance Program on an annual basis during the evaluated period. An internal document review revealed concerns that this could make entering multi-year agreements with First Nations more risky. A few ISC interviewees also mentioned that because Regional capital funding was used for various capital projects in addition to contaminated sites, competing priorities could make it challenging to secure funds for the CSOR Program. Though beyond the temporal scope of the evaluation, in FCSAP Phase IV (2020 to 2024) the CSOR Program moved to a five-year funding allocation, and it is anticipated that this will also be the case for FCSAP Phase V.

The reactive nature of the CSOR Program

While they are within the eligible activities under the CSOR Program, activities to prevent pollution do not currently receive funding given the limited financial resources available. This results in the ongoing creation of new liabilities. One ISC staff interviewee shared: “If we're not investing in the prevention and helping educate and increase capacity of those Indigenous leaders within those communities to understand what's happening, we're just going to continually do this cycle to the end of time.” Some First Nation interviewees shared their desire for more public education related to causes and effects of contamination, while a few ISC interviewees identified small investments to upgrade infrastructure, such as replacing fuel storage tanks and related hoses or equipment, as beneficial prevention activities. In fact, the leading causes of contamination for all sites as recorded in the IEMS (n=3,512 as of August 2023) include fuel related practices (50%), and inadequately managed landfill and waste sites (29%). The evaluation heard from both ISC staff and First Nation interviewees that providing an operations and maintenance budget to staff facilities at high-risk for contamination, such as bulk fuel storage facilities, would be a beneficial investment for the CSOR Program. The Program also does not have many enforcement mechanisms to support the “polluter pays” principle or regulations to prohibit contamination on reserve, with one ISC staff interviewee sharing that they write strongly worded letters to the polluter and hope that this will spur action. While legal action is possible, the court cases can be lengthy and do not always result in the third party being forced to pay, which can delay remediation of some sites for decades. In addition to the lack of enforcement options, a gap in federal and provincial/territorial responsibility for environmental protection means that not all First Nations have sufficient regulations to prohibit contamination on reserve.[28] Without prevention or enforcement activities, the root cause of contamination is not addressed.

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[26] The number and identity of First Nations requesting a defined multi-year budget is unknown to the Evaluation team, as the information came from a review of internal documents.

[27] A-Base funding is a source of funding for the Department, accessed through parliamentary votes. Each parliamentary appropriation act consists of a number of votes. A vote is a short statute authorizing a department or agency to spend money for a specific purpose. Instead of being voted on individually, the votes or short statutes are consolidated into an appropriation act (i.e., interim supply, full supply, Main and Supplementary Estimates).

[28] Indigenous Aware. (2021). *What Is a Contaminated Site?* https://www.indigenousaware.com/post/what-is-a-contaminated-site

Spotlight on prevention efforts and enforcement challenges

After One Arrow First Nation closed down a dumpsite and replaced it with a solid waste transfer site, the Nation experienced challenges in enforcing laws against illegal dumping. Leading up to the closed landfill, there was garbage strewn up and down a closed road. Illegal dumpers exacerbated contamination by burning their trash so that others would not be able to identify them through their garbage.

The Nation's administration tried numerous methods, such as signs and physical barriers to block community members and nearby non-First Nations neighbors from accessing the site and illegally dumping their waste in the closed facility. The contamination along the road to the dumpsite can be seen in satellite images.

While the Indian Act allows for a fine of up to $100 if an individual is caught dumping illegally on reserve, representatives from the Nation say this fine has never been issued in their region.

KEY FINDING #5: Human and technical capacity in both ISC and in First Nations is a challenge in delivering the CSOR Program effectively. Having a sufficient number of staff who are, dedicated, qualified, and appropriately compensated is necessary to achieve good results.

The evaluation team found that, as with many ISC programs, capacity challenges hindered the CSOR Program's effective delivery. In particular, human, and technical capacity were raised as challenges within ISC, and within the First Nations responsible for delivering the CSOR Program's projects. In general, the evaluation found that ensuring staff members in both ISC and First Nations are appropriately-compensated, qualified, and have some historic or contextual understanding of communities is necessary for the Program to achieve positive results.

Staffing in the Regional Offices

The evaluation team heard that adequate capacity within ISC is needed to ensure projects are appropriately prioritized, tracked and monitored. As discussed in Finding 4, this means having appropriate financial capacity to address high-risk sites and assess suspected sites as they are reported. It also means having the appropriate human

resources within the department to manage projects internally, update internal databases, and action requests for data and information from both within and outside of ISC. One ISC interviewee shared, “There's a bunch of work that has to be done [such as going] to community meetings, before [the project] even gets started; [then] when it gets started, after it gets started, [and] after it's finished. It's very heavy on [full time employees] and that was and continues to be something we have in fairly limited supply.” Many interviewees were concerned about turnover within the CSOR Program, and how it impacted program delivery to be constantly onboarding new employees and have new employees trying to follow processes that are regionally defined or defined on an office-by-office basis.

A majority of ISC interviewees shared that they face operational challenges due to understaffing in their regional office, raising concerns around burnout. Some ISC interviewees discussed the challenges they faced in managing workloads for the CSOR Program when their time was being divided between that and other related program areas, such as litigation, First Nation Land Management, solid waste, community infrastructure, climate change impacts, and the department’s response to the COVID-19 pandemic.

While generally ISC interviewees agreed that having science-based staff at both the working and managerial level is helpful to ensure everyone understands the projects and the process, one ISC interviewee mentioned the challenge of hiring the appropriate expertise within their unit, given that the compensation package for the staffing group and level allocated, along with the actual workload and high-profile nature of the work to be completed, was not competitive in their high-cost-of-living urban centre.

Community-level capacity

At a community-level, the evaluation heard that First Nations cannot always prioritize the assessment and remediation of contaminated sites, given other more pressing issues or capacity challenges within their communities. The evaluation team heard from both ISC and First Nation interviewees that communities may have priorities outside of the contaminated site that take up their time, resources and attention; and that getting the Nation on board with a project can be a challenge. One First Nation interviewee shared about the challenges they have experienced getting their fellow community members to discussions around their contaminated site project: “Contaminated sites is not buzzworthy. There needs to be some new terms to get people excited and interested, you’ve got to ‘green it’.” Other First Nation interviewees spoke about how there is always something happening in the community. Another First Nation survey respondent shared that “the serious nature of social issues overshadows concerns for the environment.” Some ISC interviewees also shared that CSOR projects can be politically sensitive to take on, given that there may be a long lag between assessment and remediation which may reflect poorly on a First Nations’ leadership, though the actual timeline for remediation is not under the Nation’s control.

The evaluation heard that having the appropriate human resources within First Nations to respond to contaminated site projects, and to act as stewards for the projects within

the community, is a key component of success. A few First Nation interviewees shared that their communities did not have a dedicated environmental specialist and this made it challenging to move forward on comprehensive environmental planning or to have a full picture of how contaminated sites projects will impact the Nations moving forward. One First Nation interviewee stressed the importance of having someone within the community who has the formal and technical knowledge to understand the nuances of ESAs, and can also speak in a way that the community can trust and understand, and shared the perspective that these positions must be appropriately compensated in order to both recruit and retain that specialized knowledge.

Spotlight on Ty Roberts, Land Manager

At Lac La Ronge Indian Band, Ty Roberts (B.S.A., PAg.), the Lands Manager, is deeply involved in the assessment and remediation of contaminated sites across 6 communities and 19 separate reserves encompassed in the Nation. Ty stresses that these contaminated sites projects are more efficiently managed when the person in charge has both technical knowledge of environmental sciences, and can foster collaborative, trusting relationships between the community and external consultants. Ty credits the success of Lac La Ronge Indian Band's land managers and members to the community's Post-Secondary Education Program, which provides funding for members' education.

> *"Our members deserve to live somewhere clean and healthy, that's what it all comes down to. It's not about me, it's not about us in this room. It's about the next seven generations, and that mentality has been ingrained in me forever. That's just how we were raised as Woodland Cree people. It's not about us, it's about the next people and the next people. It's about preserving this area forever, not just now."*

Considerations surrounding appropriate capacity within First Nations communities is further elaborated under Finding 8 related to service transfer.

Process

KEY FINDING #6: The CSOR Program has found some internal efficiencies by collaborating with other government departments and programs to access surplus funding, and through the bundling of its sites. Working with First Nations has produced additional efficiencies during the lifetime of projects. However, the Program's administrative requirements are a source of inefficiency, and the current mechanisms for tracking performance are not sufficient to measure progress toward the ultimate outcome of the CSOR Program's interventions.

Areas of efficiency

The evaluation heard that internally, ISC has achieved some efficiencies in the CSOR Program by ensuring that funding is nimble. First, ISC interviewees shared that the practice of transferring unused, surplus funds from FCSAP custodian departments, ISC regions, and other contaminated sites projects to other prioritized and 'shovel-ready' projects facilitated efficiency by maximizing resources. However, some ISC interviewees from Headquarters mentioned that they faced some challenges with transferring funds between departments as the processes had a greater administrative burden than internal ISC transfers. Furthermore, ISC is not always able to come up with the required cost-share portion needed to access surplus FCSAP funds.

Additionally, a 2016-17 transition to a "flex" funding model enabled the transfer of unused funds from one fiscal year to the following fiscal year. Again, however, despite this transition, some respondents mentioned they had been unable to take advantage of this "flex" funding model as FCSAP rules do not allow transfers between funds allocated for assessment and those allocated for remediation.

Updates to the FCSAP terms and conditions also created efficiencies for the CSOR Program. In Phase III of FCSAP (2016 to 2019), federal contaminated sites were only eligible for remediation funding if the site was classified as Class 1 (high priority) or as a Class 2 (medium priority) where remediation had began prior to 2011 (in Phase 1) and if the contamination action occurred prior to April 1, 1998. Criteria for funding eligibility was expanded in Phase IV of FCSAP (2020 to 2024), and the terms and conditions were updated to include the ability to bundle multiple sites into one project. While technically outside the temporal scope of the evaluation, this was identified by a majority of interviewees as an extremely efficient change to the Program. Bundling expands FCSAP's funding eligibility to all Class 2 and 3 sites located on a reserve, regardless of their proximity to a Class 1 site.[29] Bundling has allowed communities to take advantage of high cost resources that have been mobilized for high-risk Class 1 sites, such as equipment and consultants, and use them for lower risk Class 2 and 3 sites that are geographically close but may not have been able to access FCSAP resources otherwise. Bundling projects can be particularly advantageous in remote communities, where the cost to mobilize resources is higher. Furthermore, bundling sites has been reported to reduce the administrative burden on First Nation communities, as only a

[29] Environment and Climate Change Canada. (2019). *Funding of federal contaminated sites*. https://www.canada.ca/en/environment-climate-change/services/federal-contaminated-sites/funding.html

single, consolidated funding application is required rather than multiple funding applications for the different sites. With multiple sites included in one budget, bundling can further help communities to better forecast project spending and mitigate against the uncertainty involved when budgeting for remediation.

Finally, involving First Nations directly in projects is a source of efficiency. Most First Nation interviewees expressed that staff from the community can act as liaisons between the community and the CSOR Program's project teams, fostering local buy-in for projects and the importance of clean up, establishing credibility for projects, and developing trust and collaboration between the CSOR Program staff and communities. This can reduce potential disruptions and barriers to site assessment and remediation. Staff from the community are also better situated to respond to the needs and concerns of their nation, as community members may have existing background knowledge about the site and can establish project continuity. A few First Nation interviewees also shared that they can use the CSOR Program's reporting process to ensure their project has good value and their leadership is on board.

Spotlight on mobilizing local resources

The Kitsaki Management Limited Partnership is the for-profit economic development arm of the Lac La Ronge Indian Band, and focuses on investments in long-term sustainable businesses to improve the economic future for the members of the Lac La Ronge Indian Band and all other Indigenous Peoples. The Kitsaki portfolio is incredibly diverse, and includes investments in catering, consulting and management, environment, insurance, mining, vegetation and forestry. Through sole-source contracts, the Lac La Ronge Indian Band has been able to mobilize its resources through Kitsaki to bolster the local economy and find efficiencies in the assessment and remediation processes of contaminated sites management.

Ensuring that CSOR assessment and remediation projects are awarded to local firms in remote First Nation communities can also reduce wait times if projects experience delays, as the resources can be mobilized more quickly than if they are coming from an urban centre located hours away from the contaminated sites.

A few First Nation interviewees and survey respondents stressed that feasibility studies should be done with every assessment to ensure that the most appropriate course of action is being taken; and that the technology selected for the project will be compatible with the environment in which it is being used.

One interviewee from a consulting firm shared that working with a community which had the land manager on-site and directly engaged in the project had allowed them to complete more work in a much shorter time period than they had initially forecasted,

and that finding additional resources within the community was generally easy given the land manager's involvement and pre-existing relationships.

Areas of inefficiency

The CSOR Program experiences some areas of inefficiency that impede productivity. First, almost all ISC interviewees expressed challenges with the Program's administrative and reporting requirements for FCSAP and ISC. ISC interviewees shared that they face a high burden of reporting. Some ISC interviewees spoke to challenges of updating databases that are not user-friendly, such as the IEMS. They mentioned how this time-consuming process can either take their attention away from completing other work, or how it may be left undone for months at a time. While reporting importantly contributes to transparency, tracking project progress, and accountability to the public, ISC staff shared that the detail and frequency of reporting can lack utility and result in duplicated work. For example, while bundling projects is a source of project efficiency, IEMS cannot accommodate this practice and individual sites must have expenditures tracked individually. This means that an officer is inputting the same information multiple times for the same project. These reporting requirements can increase ISC workloads, reduce the already limited capacity of ISC staff, and take resources away from CSOR Program delivery. Other sources of delays and administrative burdens resulting from internal processes are the extensive contracting processes, the need for ISC staff to manage multiple funding sources, and complex processes to access FCSAP funds.

Moreover, IEMS is not an effective performance measurement tool for the CSOR Program and is limited in its functions to optimize the internal processes and support decision-making. The IEMS is a program management and reporting tool used to track and report on contaminated site project and financial information. The IEMS is primarily used for financial planning and forecasting. Though, nearly all internal ISC interviewees experienced challenges and limitations with using the IEMS to conduct useful data analyses for informed decision-making. To start, the IEMS reflects funding allocations for contaminated site projects rather than actual expenditures, which makes it challenging to reflect on the concrete progress and performance of the CSOR Program's projects. The tool has also been reported to contain unreliable information which cannot be used to accurately measure performance. Many ISC interviewees shared that the unreliability and inaccuracy of IEMS stems from regional differences in breaking down project and site costs, human errors when entering data into the numerous fields within the database, time lags between contaminated site data collection and entry into the IEMS, and difficulties with accurately measuring certain datapoints such as contamination volume. A few ISC interviewees also shared challenges with extracting IEMS data to upload for use into other systems such as the Treasury Board's FCSI due to the errors in the data which must be manually corrected. A planned systems update promises more accuracy, consistency, and the ability to update site data live, though the update has been delayed past its expected date of March 2024.

Furthermore, where progress on social and environmental outcomes of CSOR projects can be tracked, the data is also not always helpful for performance measurement. The

IEMS lacks the geolocation data that could facilitate place-based analysis, and there are currently no systemic means of tracking project outcome data related to GBA Plus outcomes around individual identity characteristics like sex, gender, religion, etc., or health-related outcomes as a result of the CSOR Program's interventions. As ISC is not the primary service provider, and the responsibility for managing contaminated sites projects lies directly with First Nations, GBA Plus data collection is particularly challenging for the Program. GBA Plus data that is collected is limited to FCSAP requirements to report on diversity in CSOR project employment and hiring, rather than on the impacts of the Program's outcomes on diverse groups. There is also no systematically collected data on Indigenous employment or the benefits of the Program's projects to the Indigenous community members. Finally, as noted in the "External Forces" section of this evaluation, some data on the impacts of climate change on contaminated sites has only recently been collected as a FCSAP requirement. Examining further data on social and environmental outcomes from the CSOR Program could contribute to a more holistic understanding of the program's progress towards its outcome that "Land and natural resources in Indigenous communities are sustainably managed," beyond the program's ability to reduce liabilities. However, a noted challenge is that requiring reporting on topics of GBA Plus, health outcomes, and Indigenous employment could introduce further administrative burdens on ISC and First Nations staff and that assuring the quality of the resulting data would be a significant challenge.

Roles and relationships

KEY FINDING #7: The CSOR Program has a good structure internal to ISC, with Headquarters providing national guidance and financial reporting supports, and Regions working directly with First Nations to carry out projects. Involving local representatives from First Nations in all aspects of the projects builds trust with communities and ultimately facilitates effective project management.

The evaluation examined the appropriateness of the roles and relationships for those involved in the CSOR Program, particularly with regard to the division of roles between ISC Headquarters, ISC Regions, and First Nations. Overall the evaluation found good relationships do exist between those involved in projects within the CSOR Program, and that when collaboration occurs it is a source of efficiency and can support trusting relationships between ISC and First Nation partners. The evaluation also found that FCSAP is seen as a good partner for the CSOR Program, though ISC's relationship with other custodian departments under FCSAP could be strengthened.

ISC's Internal Program Structure

The CSOR Program is structured as a lateral relationship between the CSOR Program staff at Headquarters and in the Regional Offices. At Headquarters, the CSOR Program falls under the Lands and Economic Development sector. In regions, CSOR Program delivery falls under the Regional Operations sector. Contaminated site management work spans the two sectors and is also affected by interrelated programs, such as the First Nations Waste Management Initiative, community infrastructure programs, capital projects, environment programs, and land-related programs.

Headquarters

Internally within ISC, the role of Headquarters in supporting national-level reporting under the FCSAP, and developing national guidelines for the effective oversight and administration of the CSOR Program, is seen as appropriate. ISC regional interviewees also expressed satisfaction with the lateral and horizontal engagement processes for making funding decisions within the CSOR Program.

At the same time, there is a desire for unique and technical knowledge of the regions to be integrated into Headquarters. Some ISC interviewees shared that they feel Headquarters may not always understand the project management realities on the ground, or the unique context in their region that impact project timelines. They also feel that a lack of technical expertise in the field of environmental science hinders the ability of staff at Headquarters to understand CSOR projects.

There is a desire to have additional support from Headquarters to ensure coordinated and consistent program delivery across the country. Some ISC regional interviewees shared they would appreciate more support to implement national training initiatives for First Nations, program guidelines and program frameworks, as data management can

be difficult given the inconsistent reporting formats and practices across consultants and regions.

Regional offices
Across ISC, the Regional Offices have generally good relationships with each other, and have mature systems in place to ensure that cross-regional learning can occur. Two monthly group meetings allow regional senior environmental officers and environmental managers to share their lessons learned and hear best practices from across the country. The evaluators' heard environmental managers refer to each other by name, and heard that the regions have good working relationships with each other. One ISC interviewee shared that "…the communication is really up, down, and sideways also," referring to the cross-learning opportunities within the CSOR Program's network.

Regional ISC interviewees also worked closely with First Nation communities, and saw this as a positive aspect of their role. Regional ISC employees collaborate with the First Nations from the start of the remediation process in order to identify the polluter, co-ordinate with the consultants to conduct ESAs and to develop and implement the remedial action plans.

First Nations
For the First Nation communities that the evaluation team visited, working with ISC Regional offices was generally a positive experience, as the regional ISC staff knew their unique context and their history. ISC and First Nation interviewees shared that great relationships between First Nations partners and ISC are built on trust, transparency, respect, responsiveness, and partnership. Interviewees put the most emphasis on the importance of trust, mentioning that ISC regional staff and project teams must build the trust of community leaders and members to mitigate impacts of historic mistrust with the Government and encourage community member's cooperation with remediation projects. "As Indigenous communities are often disproportionately affected by industrial development, meaningful inclusion of Indigenous knowledges into project development processes is an essential step toward more accurately representing Indigenous exposure to risks and harm."[30]

The evaluation heard from both ISC and First Nation interviewees that involving communities in leading the bidding and tendering process to choose consultants (ideally from First Nations-owned companies) contributes to community ownership, economic benefits, capacity building, and alignment with community needs. Some First Nation interviewees mentioned that hiring local contractors enables solutions that make sense locally.

[30] Arsenault, R., Bourassa, C., Diver, S., McGregor, D., & Witham, A. (2019). Including Indigenous Knowledge Systems in Environmental Assessments: Restructuring the Process. Global Environmental Politics, 19(3), 120. https://doi.org/10.1162/glep_a_00519.

Spotlight on Indigenous-owned environmental businesses

Stone and Arrow Consulting Ltd. was created in 2021 with the purpose of building Indigenous capacity in engineering and consulting. The majority Indigenous-owned firm is working with Cowessess First Nation in Saskatchewan to assess and remediate contaminated sites on their lands, and provides opportunities for Indigenous peoples to develop technical skills and capacity through experience working on these sites. The Nation and Stone and Arrow Consulting Ltd. are working together as part of a Project Management Team with Indigenous Services Canada to ensure that the community's internal resources are mobilized as effectively and efficiently as possible.

The evaluation team heard that ensuring a community member is involved in all aspects of the project can facilitate local support for projects by aligning projects with community priorities and by facilitating trust from community members. The evaluation also found literature that supported the idea of involving Indigenous peoples in assessment and remediation projects to provide local socio-economic opportunities, build community capacity, result in better overall project outcomes and project design, and could even create smoother regulatory processes.[31]

The evaluation identified a best practice, where regional ISC employees participate directly with community members in project implementation through project management teams. The teams generally include representatives from the First Nation, ISC, and the consultant. Project management teams are a forum to discuss the progress and direction that the contaminated site project can take. The evaluation team heard that these teams created good relationships with First Nation partners through high engagement, transparency, collaboration, and technical competence.

FCSAP

The evaluation identified positive collaboration between the CSOR Program and other custodian departments within FCSAP. Within FCSAP's structure, a selection of custodian departments (Environment and Climate Change Canada, Fisheries and Oceans Canada, Health Canada and Public Services and Procurement Canada) act as 'expert support departments' who provide a peer-review service to the classification ratings given by departments to Class 1 sites in their portfolio.[32] ISC also connects with the other FCSAP custodians[33] through the FCSAP Secretariat's Regional Integrated

[31] Health Canada. (2010). *A guide to involving Aboriginal peoples in contaminated sites management.* (p.41). https://publications.gc.ca/site/eng/383463/publication.html

[32] In addition to all Class 1 sites, Expert Support Departments also provide a peer-review on 10% of Class 2 and 3 sites.

[33] A list of the current FCSAP custodian departments can be accessed at https://www.canada.ca/en/environment-climate-change/services/federal-contaminated-sites/partners.html

Planning Boards, which functions as an effective knowledge-sharing body when properly resourced. The evaluation found that many ISC interviewees generally agreed that the custodian departments could better mobilize resources, and reduce duplication, as currently there are very few examples of custodial departments sharing resources to assess or remediate adjacent contaminated sites. The evaluation heard that improved integration with other FCSAP custodians is an area that could be further developed.

Service transfer

Throughout the evaluation, the team heard about a variety of approaches that the CSOR Program could take to advance service transfer, or better ensure that the appropriate capacity and resources are available outside of ISC to ensure good project management for contaminated sites projects.

KEY FINDING #8: To advance service transfer within the CSOR Program's current structure, there is a need to appropriately define and resource an Indigenous training and procurement processes that could support First Nations to build further capacity in contaminated site assessment and remediation activities. The current performance measurement strategy does not reflect First Nations' definitions of success.

The evaluation heard about potential approaches to service transfer that could be actualized within the current CSOR Program structure or within the broader ISC portfolio. These approaches include additional support for First Nations to access training and build technical capacity, a more robust Indigenous business development and procurement process, and a revised strategy to measure the performance and success of the CSOR Program.

Training and staffing

A majority of First Nation and ISC interviewees mentioned training and capacity development when discussing the CSOR Program. In general, the evaluation found that ISC resources are not adequate to provide the appropriate level of support to meet the training and capacity development needs of communities. Many ISC interviewees shared that the CSOR Program had limited resources for training and that where training was funded or resourced, it was generally ad hoc training provided when other complementary programs, such as First Nations Land Management, did not have the budget to fulfill community's training requests. Some ISC interviewees also shared that community representatives are expressing a desire for more specialized or localized training in the CSOR Program. Some First Nation interviewees expressed that they were not aware of any or many CSOR Program-related training opportunities.

The evaluation heard about many types of methods to integrate training opportunities into the CSOR Program. Of the training desired, ISC interviewees expressed a greater need for more training on prevention efforts and project management for First Nations. On the other hand, First Nation interviewees were most likely to discuss contaminated site management process or technical training needs, with one First Nation survey respondent sharing a desire for regional CSOR Program training. Many First Nation interviewees also expressed that when they had accessed training through the CSOR Program, this training was generally experiential or "on the job" learning. The value of other modes of training and learning, however, were highlighted. Many First Nation interviewees were hopeful that they could continue to share knowledge within and between First Nation communities. A few First Nation interviewees stressed the importance of formal, classroom-based education for First Nations involved in contaminated site management to ensure that First Nations' have the technical and project management skills required to carry out projects successfully. Some regional ISC interviewees shared that they have endeavoured to include training for First Nation partners in CSOR projects by partnering with a local college to ensure First Nation students could get real work experience through the CSOR Program, or by accessing funds from other ISC programs to organize community workshops.

For First Nations to achieve self-sufficiency with assessing and remediating contamination on reserve, all interviewees and survey respondents highlighted the importance of ensuring that First Nations have adequate financial resources. Interviewees stressed that dedicated financial support is particularly important to ensure that First Nations have ongoing technical capacity, and can recruit and retain talent in their communities. Both ISC and First Nation interviewees shared that having a consistent contact for environmental work in communities was a beneficial practice for the effective delivery of projects. In Ontario, the CSOR Program provides a 1.25% administration allocation that can be used by communities for staff salary, though a few ISC staff interviewees shared that this can be a challenge when their community contact is working on CSOR projects as well as many other projects at the same time. For a particularly complex multi-year remediation project, one ISC interviewee shared that they were able to use these funds to cover the salary for a full-time staff member in the community, as well as funding for associated community engagement costs. With community buy-in and ownership, First Nation interviewees shared that they have led projects by setting standards for remediation, getting involved in project management teams, and deciding how to use remediated land based on their community's needs. By providing additional financial resources to First Nations to ensure they can hire and retain technical expertise within their communities, First Nation and ISC interviewees shared that the CSOR Program could support First Nations' capacity for service transfer.

Business development and procurement

For service transfer to occur for in the CSOR Program, the evaluation evidence suggests a need for a dedicated First Nations technical group of environmental professionals to support the CSOR Program's work, including the training of local staff to both complete work directly and manage external contractors, and to improve First Nation firms' access to contracting opportunities.

One First Nation interviewee expressed the difficulty in getting training opportunities for their members, as the community is quite small and their members can face a variety of barriers to access training, such as transportation issues, remoteness, and availability for work. One ISC staff interviewee mentioned that a good practice for training through a dedicated technical group can be found in the Circuit Rider Training Program[34], a long-term capacity building program where individuals are trained on how to operate First Nations drinking water and wastewater systems and then visit different communities in a region on a cyclical basis.

ISC interviewees speculated that dedicated technical groups could be responsible for overseeing contracting and related work within each region, which would reduce the work required by individual First Nations on their projects. First Nation interviewees suggested that a technical organization could also function as training and knowledge-sharing body responsible for disseminating knowledge about contaminated site projects between neighbouring First Nations. Good examples of the training and knowledge-sharing supports in the lands context are the National Aboriginal Land Manager's Association's Regional Lands Associations, and the First Nation Land Management Resource Centre's regional bodies.[35]

One challenge that many ISC interviewees identified within the CSOR Program is the limited number of qualified consulting firms to hire for contaminated site assessment and remediation projects. Because there are only a few large firms in the environmental consulting sector who can conduct the work, ISC interviewees shared that they have experienced varying levels of

[34]Indigenous Services Canada. (2022). *Circuit Rider Training Program*. https://www.sac-isc.gc.ca/eng/1313424571273/1533818103401

[35] Indigenous Services Canada. (2024). Evaluation of Land Management Sub-Programs.

expertise and professionalism in contractors, as well as increased project costs as the companies have greater leverage to control market prices with limited competition. Moreover, the evaluation heard that ISC regional staff and First Nations have had pre-existing challenges in their relationships with the consulting firms who do complete bids, and that they have continued to work with the same few firms due to a lack of alternatives.

A dedicated First Nations technical group of environmental professionals could help address contracting challenges, both through training, but also through supporting First Nation environmental consultant businesses. To address gaps in technical capacity and support community development, both First Nation and ISC interviewees shared that First Nation environmental consultant businesses could join larger firms and take advantage of the economic opportunities available through involvement in contaminated site management processes[36]. Further, many First Nation interviewees shared that hiring from a community's own local talent can both build capacity for their businesses and be beneficial for the First Nation beyond the remediation of the contaminated site.

Respecting a potential dedicated First Nations technical group of environmental professionals, concerns were raised that, in order to be effective, it must be sustainable and not limited to individual communities. For example, some ISC interviewees expressed frustration about how the remediation of a contaminated site is often a "one off" project for many communities, so the skills developed are only used for a short period of time.

Ultimately, by appropriately defining and resourcing a process to provide the level of training and business development opportunities desired by First Nations' organizations and communities, and by focusing procurement efforts to maximize benefits to Indigenous communities, the evaluation heard that ISC could support service transfer and enhance the technical and business capacity available in the environmental sector.

Performance measurement

Throughout the evaluation, the team heard about liabilities as a measure of the CSOR Program's success, and the challenges that rise when success is tracked by the reduction of liabilities. The CSOR Program's currently tracks progress based on metrics such as "reduction of liabilities" and "number of high-risk (Class 1) sites with remediation or risk management activities."[37] The CSOR Program reduces liabilities through remediation activities. Liabilities increase with identification of new contaminated sites, identification of additional contamination at sites, and through any increase in the estimated remediation cost. For example, a site's liability can increase if the contract bids come in higher than the cost estimate. Ideally, the reduction of liabilities is supposed to act as a proxy for the Program's efforts to clean up and close sites that no longer pose health risks, making them available for development.

However, a majority of ISC interviewees stressed that while their teams have been successful in reducing liabilities through remediation, using this as the sole measure of their performance is not an accurate reflection of their efforts and successes. This is primarily due to the various forces that can impact total liabilities which are beyond the Program's control. ISC interviewees shared that contamination and associated liabilities can change due to economic, social and environmental forces such as inflation, changes in project costs, climate change disasters that could create new contaminated sites, or changes in the available funding for the CSOR

[36] Health Canada. (2010). *A guide to involving Aboriginal peoples in contaminated sites management* (p. 26). https://publications.gc.ca/site/eng/383463/publication.html

[37] See Program Logic Model, Appendix B.

Program activities. For example, some ISC interviewees shared that the discovery of contamination on sites that have not been fully assessed makes identifying accurate liability challenging. This is due to the unknown state of contamination for sites with limited or outstanding ESA work, and progress on the assessment of sites can depend on available funding. Paradoxically, in fact, additional funding for assessments have increased liabilities due to the identification of contaminated sites that were previously classified as suspected sites. This classification effectively concealed the successful remediation work and reduction in liabilities that the CSOR Program had already accomplished. Ultimately, although fulfilling Canada's legal obligations is an appropriate goal of the program, the evaluation heard from a majority of ISC interviewees that the reduction of liabilities is not an accurate proxy for the CSOR Program's successes or efforts to sustainably manage lands and natural resources in Indigenous communities.

Beyond relying on reducing ISC's liabilities as an indicator of success, the evaluation team heard of other general and specific concerns with how the program's performance is measured. For example, many ISC interviewees shared that the Program does not have a good strategy to measure progress on the social outcomes of projects, such as decreased risk to public health and safety, and the availability of First Nations land for development. ISC interviewees shared that the proxy indicators for these outcomes are expenditures on high-risk sites and anecdotal evidence, respectively.

The evaluation also reviewed literature that raised a concern around the standards for remediating contaminated sites on reserve. To achieve program goals, the CSOR Program is intended to remediate reserve lands to a minimum acceptable standard, in order to incur the least amount of cost to taxpayers. However, these minimum standards may not always align with a First Nations' future plans for their lands, or in absence of these plans, may leave a Nation with a large tract of land that cannot be leveraged to its full socio-economic potential.[38] The literature reviewed by the evaluation team spoke to the importance of understanding the holistic approach to environmental management inherent to many traditional Indigenous knowledge systems,[39] and that using western risk assessment tools and frameworks may not readily apply to Indigenous contexts.[40] According to one First Nation interviewee's views, "Success is based on what do you do for the people in the community." To illustrate, the evaluation heard of cases where ISC regional offices had gone above and beyond the minimum required to ensure communities were satisfied with the scope and work related to contamination on their land; but the success of these efforts were not captured through the CSOR Program's current performance measurement approach.

Ultimately, the evaluation team heard that, while environmental liabilities constitute a federal obligation that ISC must continue to report on, by restructuring the Program's performance measurement strategy to focus on First Nations' definitions of success, the CSOR Program could be better prepared for eventual service transfer to First Nation partners, and could also tell a more comprehensive story to Canadians about the actual outcomes of the Program.

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[38] Ellison, M. (2012). *Development of Aboriginal Lands: Successes, Risks, and Environmental Concerns Respecting Contaminated Sites*. Ratcliff & Company, LLP. https://www.ratcliff.com/wp-content/uploads/2020/10/Development-Of-Aboriginal-Lands-Successes-Risks-And-Environmental-Concerns-Respecting-Contaminated-Sites-Ratcliff.pdf.

[39] Arsenault, R., Bourassa, C., Diver, S., McGregor, D., & Witham, A. (2019). Including Indigenous Knowledge Systems in Environmental Assessments: Restructuring the Process. G*lobal Environmental Politics*, 19(3), 128. https://doi.org/10.1162/glep_a_00519.

[40] Chong, K., & Basu, N. (2024). Contaminated Sites and Indigenous Peoples in Canada and the United States: A Scoping Review. *Integrated Environmental Assessment and Management*, p. 4. https://doi.org/10.1002/ieam.4869.

KEY FINDING #9: To achieve transformative change and facilitate service transfer, the CSOR Program should better reflect First Nations priorities, but this is complicated by the status of sites as federal liabilities.

The evaluation found that the priorities of First Nations are not fully integrated into the decision-making process for contaminated site management. With insufficient internal funds from ISC to assess and remediate the sites identified by First Nations, the CSOR Program relies on funding from FCSAP through cost-sharing. In this context, FCSAP's funding priorities and site eligibility conditions pose significant barriers to the service transfer of the Program. These limitations constrains the ability of First Nations to address their own priority sites as FCSAP prioritizes high-risk sites and remediation activities over assessments. Consequently, First Nations are not always able to assess suspected sites, or to access remediation funding for sites in their communities that have been deemed as lower-risk through the National Classification System for Contaminated Sites. For example, one First Nation interviewee shared that one of their sites that had been deemed low-risk by ISC, was prioritized by the community due to its higher importance and health impact, considering the proximity of the contamination to wild-growing traditional medicines. While the 'bundling' of sites has reportedly helped with addressing lower-risk sites prioritized by First Nations, one ISC staff interviewee pointed out that securing funding for suspected sites is a particular challenge.

In addition to sites that are eligible but not prioritized through the FCSAP criteria, the evaluation heard about sites that are not currently eligible but that still impact First Nations' communities. As discussed above, the CSOR Program and the FCSAP provide funds for contaminated sites that have been accepted as a federal liability. For example, FCSAP funding cannot be used to address sites that are not on reserve lands, but are within First Nations' traditional territories, or on sites purchased by a First Nation through the 'additions to reserve' process. The FCSAP funding accessed by the CSOR Program also cannot be used to address capital costs, such as the removal of contaminated buildings. During one site visit, the evaluation team saw a former gas station where the lands were being remediated under the CSOR Program, but the community had to access funding from other ISC programs to remove the building on the contaminated land. Other ineligible sites include sites where pollution has been caused by a 'private party' such as when reserve lands are held under a Certificate of Possession (CP). [41] One First Nation interviewee mentioned that since some First Nations have more Certificates of Possession on their land than other Nations, the ineligibility of sites on CP lands affects some First Nations much more than others.

[41] A Certificate of Possession is a document certifying that an individual member of a First Nation has been given an allotment (lawful possession in the form of the right to use and occupy a parcel of reserve land) by the Band Council, which is then approved by the Minister. Legal title to the land remains with the Crown.

Spotlight on Certificate of Possession land and legislative environment

In the Pekuakamiulnuatsh Nation, members are issued Certificates of Possession to ensure they will continue to have access to the land they use. This limits their ability to access CSOR funds to remediate land held under Certificates of Possession, which is considered “private property.”

The complexity of the legislative landscape has created difficulties when determining a funding source for these contaminated sites. The community of Mashteuiatsh must take into account the particularities of the:

- framework agreement, their specific agreement including their land code
- negotiations of their draft treaty
- eligibility conditions of the Federal Contaminated Sites Action Plan and the CSOR program

Thus, out of around forty sites with a potential for contamination, only one site is being rehabilitated under the CSOR Program, the other sites must be taken care of by the federal government under the funding available according to their specific agreement or according to the negotiation of their draft treaty, considering the issuance of Certificates of Possession for these sites.

Sites that are ineligible under the FCSAP are supposed to be assessed and remediated at the expense of the owner or purchasing First Nation, in the case of ‘additions to reserve’ lands. However, one ISC staff interviewee noted that the original polluters may depart or go bankrupt, or may not be willing to pay for remediation. Without the CSOR Program’s funding, First Nations may not be able to allocate their resources to site assessment or remediation, leaving these sites to continue to pose risks to community health and well-being. Finding a mechanism to support First Nations to assess and remediate contaminated sites that are currently ineligible under the Program’s funding structure can amplify First Nation’s authority over their lands, and could contribute to transformative change for the CSOR Program.

When the federal government is responsible for contamination, or the polluter cannot be held accountable under the “polluter pays” principle, the federal government accepts the liability. The CSOR Program and the FCSAP provide funds for contaminated sites that have been accepted as a federal liability. ISC interviewees mention that the presence of federal liability is a barrier to the full transfer of the CSOR Program to First Nations: to the extent that the Government of Canada is liable for a contaminated site, it must remain accountable for the site’s management.

However, some ISC interviewees emphasized that transferring responsibility for cleaning up federal contaminated sites from ISC to First Nation partners, is not feasible, as it would conflict with the accountability system in place for the polluter pays principle. Effectively, this sort of full service transfer to First Nations would make First Nations liable for cleaning up pollution that they were not responsible for creating and had no mechanisms to prevent. For example, during one community site visit the evaluation team heard about a historic industrial polluter who had signed a long-term lease with Canada for a parcel of their reserve, without the Nation’s input or approval. Many ISC interviewees shared the view that the Government of Canada should remain responsible for environmental liabilities on reserve lands, and that it is

unjust to devolve responsibility for environmental damage caused by third parties to the First Nations.

Some ISC staff emphasized that, even if First Nations do not take on federal liabilities for contaminated sites, they have a right to set priorities and make decisions about contaminated site management on their lands.

External forces

KEY FINDING #10: The CSOR Program has experienced impacts from climate change, including unpredictable seasonal weather and new sources of potential contamination. First Nations and ISC are beginning to incorporate adaptation and mitigation strategies to address the impacts of climate change on contaminated sites.

Climate change is impacting First Nations communities in a wide variety of ways across regions and contributes to unpredictability in the Program's project planning. Many interviewees and survey respondents shared anecdotal examples of climate change impacts such as increases in flooding, forest fires, coastal erosion, changing weather patterns with warmer winters, and a general increase in extreme weather events. Others reported that climate change has no known or minimal impacts in their communities and on the CSOR Program.

Climate change impacts can affect the contamination of land and water in unpredictable ways that delay projects and make work planning difficult. For example, a majority of interviewees shared that flooding can increase the spread of contamination through events like spills, erosions, and spreading contaminants like petroleum in the land to other water sources. Extreme weather can also delay CSOR projects, as contaminated sites may be inaccessible due to events such as fires and floods. Additionally, almost all ISC interviewees shared that they face challenges with addressing contaminated sites in rural Northern communities in the winter due to climate change, as many communities are experiencing shorter periods of winter which result in shorter field seasons to remediate contaminated sites and limited access to winter roads for the transportation of labour and equipment. A few ISC interviewees shared concerns that the process of contaminated site management can also further contribute to pollution and climate change through the use of fuel for transporting and powering equipment and labour.

While outside the temporal scope of the evaluation, the CSOR Program has started incorporating climate change impacts into projects. FCSAP Phase IV (2020 to 2024) required climate change considerations to be incorporated into every project (e.g., prevention, risk management, costs, reporting etc.).[42] However, ISC interviewees reported that the impacts of climate change on the Program are largely unpredictable, inconsistent, and difficult to ascertain for certain communities, and that it can be challenging to collect and communicate climate change data. According to most ISC interviewees, this can make it difficult to systematically measure and proactively address climate change through project planning. The increased reporting has also increased the workload of the ISC regional staff, though given the relatively small physical size of the contaminated sites in ISC's inventory, some ISC interviewees questioned the utility of this process. Many groups can be responsible for climate change-related work, demanding collaboration that further impacts ISC staff workloads. One First Nation interviewee shared that climate change challenges require solutions beyond single, isolated contaminated sites projects; and ISC interviewees agreed that the CSOR Program requirements should reflect that reality.

During the evaluated period, some First Nations communities were also developing internal climate change adaptation and mitigation approaches, when funding and capacity was available. When they had the capacity and resources, some First Nation interviewees

[42]Environment and Climate Change Canada. (2020). *Federal Contaminated Sites Action Plan (FCSAP): integrating climate change adaptation considerations into federal contaminated sites management*. https://publications.gc.ca/site/eng/9.910269/publication.html

described how their communities were leading the way to develop strategies that address the environment and climate change impacts on their land. ISC and First Nations interviewees highlighted that partnerships between ISC and Indigenous peoples to develop solutions that address climate change impacts on contaminated site management can be important for environmental reconciliation.

KEY FINDING #11: The COVID-19 pandemic has added to the unmet demand for funding from the CSOR Program. While the Program was able to advance some projects during the COVID-19 pandemic, other projects were delayed or stalled. The resulting backlog of sites to be addressed, combined with rising activity costs, has meant that the Program is expected to address additional sites with reduced purchasing power.

The COVID-19 pandemic and associated prevention measures had a mixed impact on the CSOR Program, in terms of project cost, delivery and relationships between CSOR Program staff in ISC and First Nations. These impacts largely stemmed from preventative measures that were implemented at the federal and provincial/territorial level during the COVID-19 pandemic to reduce the spread of the disease. Preventative measures included lockdowns, stay-at-home measures, quarantining, and closures or limited capacities of buildings and services. First Nations also employed strategies on reserve such as community-led shut-downs, locking down borders, restriction of non-member access to the communities, and quarantine policies for visitors. Impacts to the CSOR Program from the COVID-19 pandemic were varied and included: increases in project costs, delays in some projects, the shift of community priorities to pandemic-related needs, enabling a flexible remote work environment, and challenges with developing working relationships and conducting CSOR-related engagements.

First, a majority of both ISC staff and First Nation interviewees expressed that the COVID-19 pandemic contributed to increased project costs and reduced purchasing power due to various factors such as inflation, supply chain issues, and higher demand for consultants due to their ability to work safely while maintaining social distance. Specifically, interviewees noted that costs increased for equipment, fuel, and consultant and contractor fees. One interviewee shared that some projects incurred additional expenses for COVID-19 testing and off-reserve camps for contractors. Increased project expenses were noted to lead to increased costs to remediate sites, which was expressed through increases in overall liabilities. Overall, increased costs coupled with inflation contributed to a greater demand for Program funding throughout the COVID-19 pandemic.

Second, the COVID-19 pandemic caused CSOR Program delays in projects and created a backlog of work to be addressed following the lifting of lockdown measures. Delays were a result of multiple factors, including difficulties with getting crews on-site, supply chain disruptions, pauses to develop safety and contingency plans for CSOR work, disease outbreaks, and capacity issues as many band offices shifted priorities to their public health response. To allow for flexibility and address the capacity challenges on reserve during the global pandemic, ISC responded by amending contribution agreements to allow the Program's funding recipients to carry funding forward and waiving or delaying reporting requirements. Notably, most ISC and First Nation interviewees shared that community shut downs severely limited or restricted the access of project crews and prevented the remediation of contaminated sites. In some First Nations, the COVID-19 pandemic did not significantly impact projects with remote sites that are not located near community settlements, as long as the First Nation allowed access to work crews. As the COVID-19 pandemic restrictions were lifted, CSOR staff were faced with addressing the backlog of projects that accumulated during the global pandemic. The resulting backlog of sites, combined with rising activity costs, has meant

that the CSOR Program faces more financial challenges, as they are expected to address additional sites with reduced purchasing power.

Finally, the preventative measures of the COVID-19 pandemic enabled a remote working environment, which had mixed impacts on communications, relationships, and project-related engagements. All interviewees and survey respondents shared that CSOR Program began using virtual meetings and remote communication tools, which allowed for some level of continuity in project delivery. Many interviewees and survey respondents also expressed benefits around the flexibility of remote working arrangements following an adjustment period. However, some First Nation interviewees and survey respondents did note limitations with reduced in-person public engagements with community members, which created barriers to meeting project requirements and sometimes delayed CSOR projects. ISC interviewees also expressed challenges with adjusting to an online work environment and shifting priorities internally, which further delayed projects. ISC interviewees shared that, while they were able to find online workarounds for community engagement, many regional staff experienced challenges with building strong working relationships with Indigenous partners and conducting comprehensive community engagements due to their inability to visit contaminated sites on reserve in-person. Most First Nations interviewees agreed that remote contact was insufficient to establish a strong working relationship with ISC staff.

5. Conclusions

5.1 Conclusions

5.1.1 Relevance

The evaluation sought to understand why the CSOR Program is needed and to assess the extent to which the Program meets those needs. The evaluation concluded that the CSOR Program is highly relevant to both the Government of Canada and ISC's priorities, and that it does meet an ongoing need in First Nations' communities. The CSOR Program addresses the remediation of contaminated sites on First Nations' lands, aiming to reduce Canada's liabilities and support environmental reconciliation. The program impacts First Nations' communities holistically, including their health, well-being, economy, and land use.

The evaluation also looked to understand the CSOR Program's operating context and how it has changed over the scope of the evaluation. The evaluation concluded that since April 2014, there is a greater focus by the federal government on First Nations' self-determination, and increasing efforts by First Nations to restore their governance over their lands. The CSOR Program's main funding partner, FCSAP, has also undergone changes over the scope of the evaluation. Since 2014 it has progressed into Phase III (2016-19) and Phase IV (2020-24) of its activities, broadening the scope for contaminated sites on reserve, and changing in both funding and site eligibility criteria. The evaluation also took a Gender-based Analysis Plus lens to the CSOR Program's activities. Although data limitations did not allow for an in-depth analysis, the evaluation found some evidence that the CSOR Program's outcomes have a particularly beneficial impact on the most vulnerable members of First Nation's communities, such as Elders, youth, pregnant women, and people experiencing houselessness.

5.1.2 Performance

With regard to performance, the evaluation sought to understand the extent to which the CSOR Program is achieving its expected results, including the Program's contributions to the ISC departmental result that "Indigenous communities have sustainable land management and infrastructure"; and to understand what challenges might prevent the Program from achieving its expected results.

The evaluation has concluded that the CSOR Program is effective in addressing contaminated sites, though it is limited in its ability to reduce liabilities by the need for additional resources and greater proactive measures. Where projects occur, the CSOR Program is contributing to both a reduced risk to public health and safety, and to the availability of First Nations' land for development. The evaluation identified a need for adequate human resource capacity, and improved staff continuity in both ISC and First Nations to ensure effective project management. The evaluation identified a significant need for additional funding to address the sites in the CSOR Program's inventory, with a particular focus on the need for resources to assess suspected sites.

The evaluation also sought to assess the extent to which the CSOR Program is delivered efficiently, and whether the appropriate performance measurement systems are in place. The evaluation found that internally within ISC, the processes for delivering funding to Regional Offices, and reassigning surplus funding, is both nimble and responsive to regional needs and realities. The evaluation also found that accessing surplus FCSAP funds from other departments was an area where additional efficiencies could be produced, though the FCSAP reallocation process is not always straightforward and can come with a heavy administrative burden. The evaluation concluded that there are some processes that impact the CSOR

Program's delivery: manual data entry, duplication of data entry work, and lack of automation contribute to inefficiencies in processes. These inefficiencies also contribute to challenges in measuring the performance of the CSOR Program, given that the performance data is not always available, accurate, timely, or in a format that is easily accessible. Overall, the CSOR program faces challenges in data collection, reporting, and systems integration. Improvements in performance measurement systems, data management tools, and processes are needed to address these issues and enhance the efficiency of the program.

Finally the evaluation looked into the process for First Nations and tribal councils to receive training and capacity development. The evaluation has concluded that the CSOR Program does not have an appropriately defined or resourced process to provide the level of training opportunities desired by First Nations, and that there is no national standard or guidelines to provide this training within ISC or from FCSAP. The evaluation concluded that First Nations are looking to access relevant training related to technical capacity, project management and process, and pollution prevention, and that First Nations organizations would be well positioned to provide these opportunities if adequately supported.

5.1.3 Relationships

The evaluation sought to assess the appropriateness of the roles within and between the ISC national office, ISC regional offices, FCSAP, and delivery partners including First Nations and consultants. The evaluation has concluded that FCSAP is seen as a good partner for the CSOR Program, though the FCSAP cannot always be responsive to ISC's unique context. Internally, ISC Headquarters' role in supporting reporting requirements and developing national guidelines is seen as appropriate, though there is a desire for more understanding of the regions' unique and technical contexts and to have stronger national guidelines. The role of ISC Regional offices is appropriate given that they work both horizontally and vertically within ISC to ensure projects are prioritized appropriately according to the Program's funding terms and conditions; and that their role in working directly with First Nations to support project delivery is useful where good relationships have been established by ISC regional officers.

The evaluation has also concluded that the CSOR Program benefits from direct First Nation involvement in both governance and delivery of projects, given that First Nation representatives are well-positioned to communicate results between ISC and First Nations' leadership and members. Ensuring a knowledgeable member from the First Nation is involved in all aspects of the project can facilitate local support for projects by aligning projects with community priorities; enhancing communication between the Nation and ISC; and facilitating effective and timely project reporting. The evaluation found that First Nations preferred to access environmental consultants who are Indigenous-owned or who are willing to hire local community resources; and that doing so can reduce timelines and overall project costs.

5.1.4 Best practices

The evaluation sought to highlight the best practices and lessons learned from the management and implementation of the CSOR Program. Key themes identified by the evaluation include the importance of communication, community engagement, trust-building, and transparency in fostering successful relationships between First Nations and ISC. In Saskatchewan, project management teams consisting of representatives from the ISC regional office, the First Nation, and the consultant support long-lasting partnerships. These partnerships have benefits that extend beyond the individual project into other areas of the relationship between the First Nation and ISC. ISC regional officers and First Nations representatives emphasized the need for early engagement with First Nations, aligning ISC's projects with First Nations' priorities, and ensuring community buy-in for efficient and

successful project outcomes. Additionally, the evaluation heard that the historic relationship of distrust between First Nations and the government must be considered when undertaking work on First Nations' land, and must consider the impact of discrimination and racism when considering the scope and long-term management of contaminated sites. Overall, the value of trust, collaboration, and technical competence cannot be overstated in achieving the goals of the CSOR Program.

5.1.5 Service transfer

One major lesson learned from the CSOR Program's management and implementation is that the reliance on FCSAP for the majority of the Program's funds causes challenges for both effective implementation, and for eventual service transfer. Contaminated sites are unique in the ISC context, as opposed to other custodial departments working with FCSAP, and reliance on FCSAP funding structure creates challenges for ISC to respond to its own unique context in terms of both the types of activities undertaken and the processes to fund activities. ISC is distinct from other FCSAP custodians as it is First Nations themselves, rather than ISC, that manage the assessment and remediation processes on reserve. To achieve transformative change, the CSOR Program has a need for a mechanism to support First Nations in assessing and remediating sites that First Nations identify as priorities, but which are outside of the current funding eligibility requirements. Evaluation evidence also suggested that securing A-based funding for the CSOR Program outside of FCSAP would allow ISC to share decision-making power on the Program's site prioritization more equitably with First Nations, and be a path toward transformative change and eventual service transfer. Finally, the evaluation concluded that further that revising the Program's logic model to ensure that its terms and conditions are responding to First Nations' priorities and needs would support service transfer, and that updated performance measurement indicators would allow for more accurate reporting to Canadians on the actual outcomes of the Program.

5.1.5 External forces

The evaluation sought to understand how climate change and the COVID-19 pandemic have impacted the CSOR Program and its outcomes. The evaluation concluded that climate change adds urgency to the work of addressing contaminated sites and highlights the need for adaptive approaches and flexibility in budgeting and timelines, while the pandemic has highlighted the need for flexibility and creative solutions in navigating the program's operations.

The evaluation found that some sites may not be significantly affected by climate change, but others are at risk of flooding, forest fires, coastal erosion, and water contamination. These impacts can increase costs and make it more challenging to close and manage contaminated sites. The unpredictability of weather patterns and extreme events also pose difficulties in project planning and risk management, particularly in working on sites which are only accessible via seasonal roads. There is a growing emphasis on incorporating climate change considerations into the design and resilience of remediation projects. However, there are challenges in collecting and analyzing climate change data, as well as determining the actual impact of climate change on site contamination.

The evaluation also found that COVID-19 pandemic has caused the CSOR Program to experience a backlog of work due to project delays. The increased costs of equipment, consultant fees, and transportation have strained budgets, leading to reduced purchasing power for the CSOR Program. Supply chain disruptions and inflation have further contributed to project delays and increased expenses. Remote work affected First Nations' ability to engage their communities, however, virtual meetings and remote communication tools did

allow for some level of continuity in project delivery. The CSOR Program adapted and found workarounds for these challenges, such as implementing pandemic-related safety measures, developing project contingency plans, and reallocating budgets to remote projects where work could occur.

6. Recommendations

Therefore, it is recommended that ISC:

1. **Working with Human Resources, the Chief Finances, Results and Delivery Officer, and Regional Offices, take steps to assess existing internal human resource needs and capacity for contaminated site management to ensure a consistent level of service to First Nations across the Program.**

   Internal to ISC, the administrative burden of the current funding and reporting structure hinders the ability of CSOR Program's staff to effectively and efficiently manage their workloads (Finding 6). The evaluation found that ISC staff and First Nations have large workloads and may face challenges in completing all aspects of projects that are expected of them in a timely manner (Finding 5, 6). An increasing number of projects or priorities in the Program may detract from areas where CSOR Program's staff's first priority is to ensure good working relationships with community partners (Finding 5). Additionally, ISC Regional Offices cannot always retain appropriately qualified staff as the available positions may not be competitive in their region, contributing to high rates of turnover or vacancies (Finding 5). By reviewing available CSOR Program's positions and classifications to give Regional Offices the opportunity to hire and retain the appropriate number and level of staff, ISC could support good project management within the Department and promote good relationships with First Nations partners**.**

2. **Working with First Nations partners and Regional Offices, leverage existing knowledge about First Nations' capacity for contaminated site management to develop options to maximize the sharing of their expertise and to ensure First Nation communities have ongoing access to qualified and dedicated human resources.**

   Insufficient financial, human and technical capacity in First Nations is a challenge in delivering the CSOR Program effectively (Finding 5). Having dedicated, qualified and appropriately compensated staff is necessary to achieve good results (Finding 5). Moreover, the involvement of local representatives from First Nations in all aspects of projects facilitates trust between community members and the CSOR Program's staff, and enables solutions that make sense locally, which increases the overall efficacy of the CSOR Program's operations (Finding 5, 6, 7). The evaluation found that First Nations do not always have access to in-community technical expertise required to effectively manage their contaminated sites projects (Finding 5). In some cases, First Nations cannot retain their internal expertise as they cannot offer competitive compensation packages. By developing options that ensure First Nations can hire and retain technical expertise within their communities, and to leverage and share relevant knowledge across First Nations, ISC could support increased Indigenous capacity for eventual service transfer in this area.

3. **Working with First Nations partners and ISC's performance measurement and data specialists, revise the performance measurement framework to include program results around First Nation's priorities, and update associated data collection instruments to enhance ISC's responsiveness to First Nations' priorities.**

   Though the CSOR Program is completing projects and providing high-quality services to communities (Finding 1, 2, 3), the requirements to report on expenditures and liabilities does not accurately reflect the Program's progress toward its ultimate outcomes (Finding 6, 8). The current focus on reducing liabilities and the remediation of high-risk sites does not

adequately show the full scope of the CSOR Program's interventions to provide funding for the assessment and remediation of sites, and how the Program closely works with First Nations as they manage contracts with consultants (Finding 8). Further, the Integrated Environmental Management System used to monitor performance on the current indicators has many challenges and is not being used effectively to inform strategic decision-making in the Program (Finding 8). Work is already underway to revise this system and address some of the current gaps, such as user friendliness and resolving inaccurate historical entries. However, it is unlikely the revised system will be able to capture the more qualitative impacts of the program, such as sense of well-being in a community once a contaminated site has been remediated, and the reduction of risks to public health and safety (Finding 6). To advance service transfer, ISC can explore options to revise the Program Logic Model to ensure that its expected results are responding to First Nations' priorities and needs, and that the performance measurement indicators allow for more accurate reporting to Canadians on the actual outcomes of the Program.

4. **Working with First Nations partners, support the ISC programs responsible to establish and resource an Indigenous business development and procurement strategy, and ensure the socio-economic opportunities from the CSOR Program flowing to Indigenous communities and businesses are maximized.**

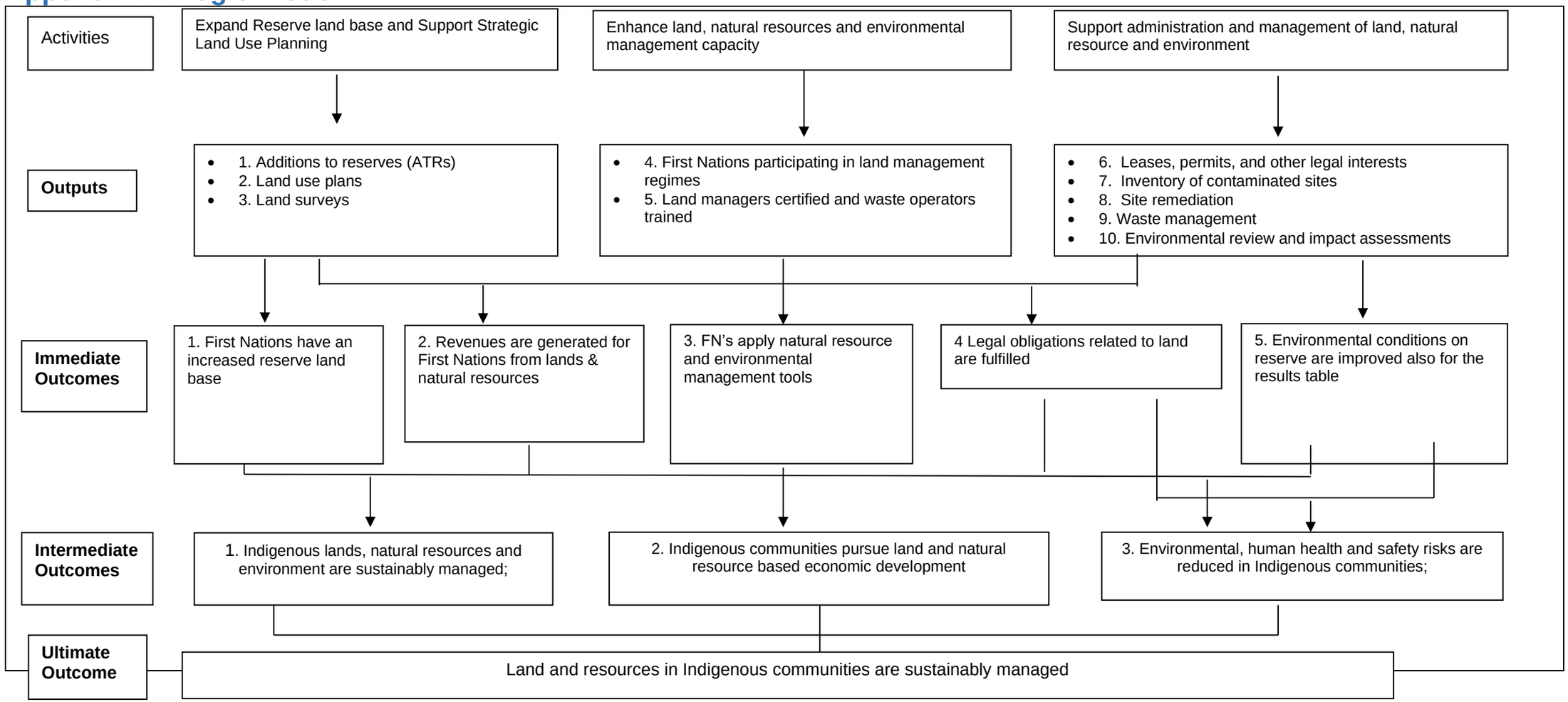
   There are challenges in securing competent and qualified consulting firms at affordable prices to conduct the clean-up work, and a desire from First Nations' communities to have an increased presence in the environmental and technical consulting sector (Finding 6, 7, 8). ISC's business development and procurement strategy could include specific direction to support the CSOR Program, which would support economic reconciliation with Indigenous peoples (Finding 8). As part of the strategy, ISC could appropriately define and resource a process to provide business development opportunities desired by First Nations' organizations and communities. This could include promoting ISC projects as business development opportunities to First Nations, or creating opportunities for networking between Indigenous communities and organizations who have successfully bid on ISC projects. The CSOR Program has built good relationships with other internal ISC programs (I.e., the First Nations Waste Management Initiative, Other Community Infrastructure, etc.) and can leverage these relationships to continue prioritizing local First Nations' businesses for projects (Finding 7). Involving First Nations' local businesses in projects supports ISC's mandate to move toward additional service transfer by ensuring there is appropriate technical capacity in the environmental consulting sector, and aligns with First Nations' representatives' reported definitions of success for the CSOR Program (Finding 7, 8). By developing and implementing a strategy for Indigenous business development and procurement, ISC could contribute to building local Indigenous capacity and finding additional efficiencies within the CSOR Program's projects.

5. **Integrate mechanisms to provide funding or support for additional activities that are not currently funded under the CSOR Program, such as pollution prevention efforts, and assessment or remediation work on sites for which ISC does not accept liability.**

   The CSOR Program faces a challenge in reducing federal liabilities related to contaminated sites on reserve under the current FCSAP funding structure and guidelines as ISC has a different relationship with federal lands than other FCSAP custodians (Finding 3 ,4, 9). First

Nations continue to report suspected contaminated sites which raise ISC's liabilities (Finding 3, 9). Inadequate levels of assessment funding limit the Program's ability to effectively classify and address contaminated sites, meaning these suspected sites are not appropriately prioritized for remediation activities (Finding 4). In addition, the eligibility of some sites may be in flux while determining whether the federal government will accept responsibility, leaving those sites without funding to worsen over time (Finding 4, 9). Similarly, the reactive nature of the Program was highlighted as a barrier to achieving the results expected, as a lack of prevention interventions (such as regulation or policy, preventative maintenance budgets, enforcement options, and public education) challenges the ability of the Program to effectively reduce emerging liabilities related to contaminated sites on reserve resulting from preventable pollution (Finding 4). ISC could support First Nations through a variety of mechanisms to ensure that communities and organizations have the means required to effectively prevent pollution on lands under their control. ISC could also explore options to provide funding or support for activities that have not currently been accepted under the FCSAP Program's eligibility requirements.

Appendix A: Logic model[43]



43 Sub-programs contributing to this logic model include the Contaminated Sites On-Reserve Program (being evaluated), as well as others which are outside the scope of this evaluation: Reserve Land and Environment Management Program; Land Use Planning; Lands and Economic Development Services; Administration of Reserve Land; Indian Oil and Gas; Education and Community Infrastructure (Other Community Infrastructure and Activities); Renewable Energy and Energy Efficiency (Eco-Energy for Aboriginal and Northern Communities); and Petroleum and Minerals.

Appendix B: Detailed methodology

The evaluation was undertaken in three phases, including preliminary research, data collection, and data analysis and reporting. The team conducted a document and literature review, developed interview guides and a survey, selected communities for engagement, and conducted interviews and focus group discussions. Throughout the planning and data collection process, the evaluation team engaged with partners in ISC, at the National Aboriginal Land Managers Association, and the First Nations Land Management Resource Centre to reflect on data collection and clarify questions about the CSOR Program.

Limitations

Site visits were not conducted in all regions of Canada, due to rampant wildfires and other environmental emergencies occurring over the data collection period. Site visits were limited to Saskatchewan, British Columbia, and Quebec and thus, the evaluation may be missing the unique perspectives of First Nations in Alberta, Manitoba, Ontario and the Atlantic. ISC regional offices distributed a national survey as a mitigation strategy to reach First Nations representatives who did not otherwise have the opportunity to engage with the evaluation.

While the survey was sent by regional officers to a total of 361 email addresses, it is difficult to know the actual survey sample size as the link may have been forwarded to others within the 71 communities on the distribution list. Assuming that 361 individuals received the survey, the response rate was low (9%) and the completion rate was even lower (4%). This may be in part due to engagement fatigue from this population, and a lack of compensation or reciprocal benefits associated with completion of the survey. The survey was also only available online, which may have contributed to the low survey response rate. Given the low response and completion rates, quantitative data from the survey has not been reported, and the focus instead was on the qualitative responses received.

Another limitation for the evaluation was a lack of available disaggregated data held by ISC as these CSOR projects and initiatives are delivered at the community level, and individual-level data was unavailable. While the evaluation strove to employ an Gender-based Analysis Plus lens, findings tended to focus less on intersectionality at the individual level, and more on the holistic and intergenerational relationship of CSOR projects on overall community well-being. Therefore there is very little disaggregated data on gender and identity.

The evaluation team also experienced limitations with the quantitative data analysis for the CSOR Program. Limitations arose due to the inability of the program's internal performance measurement system, the Environmental Management System (IEMS), to produce retroactive reports based on the status of the program's contaminated site inventory on a specific date. During the evaluation, the team received a report of the CSOR Program from the IEMS dated at August 17, 2023. This is a limitation because the team could not assess the state of the program and the progress towards outcomes (site steps) during the temporal scope of the evaluation and could only assess the progress on the outcomes using the snapshot from August 2023.To mitigate this, the evaluation team limited the data provided in the report to align with the evaluation's temporal scope; however, some projects may have

been updated retroactively and therefore may not fully align with the information provided by the program in the past.

Finally, the ISC evaluation team did not include any First Nations members and may not have fully understood the unique cultural perspectives of First Nations in data collection and analysis. Support from First Nation partners was sought to mitigate this risk.

Preliminary research: Literature and document review

The initial literature review was established based on early recommendations from management in the Environment Directorate and First Nations partner organizations. Based on this initial list, those documents were used to identify other relevant literature based on bibliographies. This snowball method was supplemented with a sweep of web-based databases. The literature and document review identified over 70 documents that would be potentially useful. The scope was narrowed to include approximately 17 academic and non-governmental organization documents, and 18 government documents. The documents were then coded and organized using Excel and Word software into specific themes under each evaluation question based on their content. The literature review informed the development of the data collection instruments and supported the qualitative data analysis.

Primary research

The second phase involved engaging stakeholders and conducting primary research. The team connected with key stakeholders within ISC as well as with First Nations partners and representatives across Canada. Data was collected and treated with confidentiality and was conveyed back to the First Nations representatives who informed the research. The data was collected in a raw data master sheet, and then added to the data analysis file to discover emergent themes and draw conclusions from a variety of sources.

For all interviews, and community site visits, the evaluation team shared back findings to contributors to verify the evaluation team’s interpretation. Interview guides were created in an iterative fashion. An interview matrix was created to visually connect the evaluation questions, themes, sub-questions and interview questions. Interview questions were organized according to research themes and sub-questions and then were organized further according to stakeholder category. Tracking documents were created to track interviewee and partner correspondence and replies.

The following table contains the 14 high-level questions the evaluation used to guide data collection and inform the analysis and reporting:

Table 3. Evaluation Questions.

Relevance	What is the need that Contaminated On-Site Reserve program address? Is there a continued need for the program? Has the context within which the program operated changed over the evaluation period (2014-15 to 2019-20)? To what extent is the program effective at reaching all community members (e.g. including from a Gender-Based Analysis Plus perspective, etc.)?
Effectiveness	To what extent have expected results been achieved? How has the program contributed to the achievement of departmental objectives and outcomes? What are the main challenges in delivering the CSOR Program?
Efficiency	To what extent is the program delivered in an efficient manner? How appropriate are the current divisions of roles and responsibilities within and between: national office, regional offices, delivery partners and recipients? Are there appropriate performance measurement systems in place to track progress of the CSOR Program? Is the process for First Nations and Tribal councils receiving training and capacity development working well?
Service Transfer	How might the delivery of CSOR be improved to advance service transfer to Indigenous partners?
Cross-Cutting Issues	What are the best practices and lessons learned for the management and implementation of the CSOR Program? How is climate change impacting the CSOR Program and outcomes? How has the COVID-19 pandemic impacted the program overall?

Data collection

The evaluation team travelled to seven First Nation communities in three regions- British Columbia, Saskatchewan and Ontario. Communities were selected for visits based on recommendations from regional office contacts, and the evaluation focused on hearing from communities with activities on Class 2 sites as the previous evaluation focused on Class 1 sites. In total, the evaluation team conducted interviews with 16 individuals representing First Nation communities, and 4 individuals representing consulting firms who worked with First Nation communities on contaminated site projects. The evaluation team also interviewed 21 individuals who worked within ISC at headquarters or in regional offices over the scope of the evaluation, including past employees where possible.

In addition, the evaluation team, with the support of regional offices, sent a survey to 336 email addresses representing the 71 First Nation communities who had received funding for CSOR

projects over the scope of the evaluation. 34 individuals responded to the survey; nearly 70% (18 of 26) identified as men; and nearly 70% (18 of 26) identified as First Nation. 44% (12 of 27) of respondents indicated they worked with a community in Manitoba, and 19% (5 of 27) worked for a community in Ontario. The rest of the respondents worked for communities in British Columbia (5); Saskatchewan (2); Quebec (2), and the Atlantic (1). No responses came from individuals working for communities in Alberta, which may in part be explained by the wildfire situation over the course of the data collection period through summer 2023.

Qualitative data analysis

The team closely examined the primary qualitative data collected through survey, fieldwork and interviews for thematic links and reoccurring patterns. Using both NVivo and Excel to create and cross-reference codes, and using virtual whiteboard software to make further connections between the qualitative themes, the evaluation team first organized the qualitative data by evaluation question, and then reorganized the sub-findings based on thematic connections with other findings.

Quantitative data analysis

The evaluation team adopted quantitative analysis methodologies to analyze administrative data files from the Integrated Environmental Management System (IEMS), which offered the evaluation team an insight of program status. The IEMS is a database used to track and report information related to contaminated sites, including site condition information and financial information. The IEMS is regularly updated by regional contaminated sites Environmental Specialists. Data was extracted on August 18, 2023. The analysis only considered CSOR site activity, or expenditures, that have occurred between April 1, 2014 to March 31, 2020. The analysis was also limited to sites below the 60th parallel by removing sites in the Yukon and Northwest Territories, and sites funded under the Northern Affairs Program. These sites are not covered under CSOR, but the Northern Contaminated Sites Program.
IEMS includes multiple entries per site because entries are created for each new expenditure. Each site may have multiple expenditures from different funding sources, in multiple fiscal years, and in different site actions. Within the sample of 1,013 sites, 2,893[44] expenditures were made.

The IEMS database reports CSOR site information including: FCSI Number, internal identifying number, region, site name, band name, expenditure amount for the CSOR site action, the fiscal year the expenditure occurred, site class, the nature and source of the contamination, the action taken on the site, the funding source, and the site's current status as active or closed.

[44] Note that one site activity may have multiple 'expenditures' recorded, as they may be funding via multiple sources (for example, FCSAP funding, and ISC cost-share portion). Expenditures is therefore not a direct proxy for site activity, and is more useful to understand annual volume of sites.

Table 4. Class 1 Sites between April 2014 and March 2020

Fiscal Year	# of Class 1 sites with expenditure in step 7-10	# of Class 1 Sites with expenditure	# of Class 1 Sites in the CSOR inventory (with and without expenditure) [45]
2014-15	78	92	Not available
2015-16	87	106	Not available
2016-17	89	103	Not available
2017-18	74	87	Not available
2018-19	78	98	245
2019-20	80	90	197

Source: Integrated Environment Management System (IEMS), ISC as of August 18, 2023

Reporting

The evaluation team considered the number of respondents and interviewees who expressed a sentiment, and weighted some interviewees more heavily than others based on experience and knowledge of First Nations' land management practices. When more than one response was heard, the evaluation team reported on it in accordance with the best practice outlined in Chang et al (2009)[46]. For example, based on a sample size of 40, "a few" refers to a range of 2-3 responses; "some" refers to a range of 4-10 responses; "many" refers to a range of 11-19 responses, and a "majority" is considered 20 or more responses. These findings were synthesized with secondary data, collected through the literature review, to find relevant support or opposition. The findings were then collected into a preliminary findings summary through ongoing team brainstorming sessions. The team presented the initial findings to ISC staff, ISC senior management, and a selection of First Nation land management experts in order to test their validity, before presenting their recommendations within the final report.

[45] The total number of Class 1 sites in the CSOR inventory was not available from 2014-15 to 2017/2018 since responsibility for CSOR was with CIRNAC or INAC.

[46] Chang, Y., Voils, C. I., Sandelowski, M., Hasselblad, V., & Crandell, J. L. (2009). "Transforming Verbal Counts in Reports of Qualitative Descriptive Studies Into Numbers." *Western Journal of Nursing Research, 31*(7), 837-852. https://doi.org/10.1177/0193945909334434