Report 4

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Funding Climate-Ready Infrastructure—Infrastructure Canada

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Introduction

Background

Climate considerations for infrastructure

4.1 Canada's climate is warming twice as fast as the global average, causing an increasing number of disaster events each year. One of the many effects of climate change is damage to infrastructure in communities across Canada. When infrastructure is damaged or destroyed, this can

- threaten the health, safety, or life of affected Canadians
- interrupt essential services
- disrupt economic activity
- harm the environment
- have a high financial cost for Canadians

4.2 Buildings and other infrastructure need to be adapted to withstand future severe weather events and the long-term impact of climate change. Buildings also need to be **carbon neutral**[1] or highly energy efficient in order to help mitigate climate change, to contribute to Canada's target of a 40–45% reduction in **greenhouse gas**[2] (GHG) emissions below the 2005 level by 2030, and to achieve the commitment to a net-zero objective by 2050.

4.3 In 2016, the Government of Canada committed to working with provinces, territories, and Indigenous communities to implement the Pan-Canadian Framework on Clean Growth and Climate Change. The framework includes direct and indirect actions to reduce GHG emissions. The framework also includes measures to adapt to the effects of climate change and build resilience. In 2020, the government put together a strengthened federal climate plan, called A Healthy Environment and a Healthy

[1] **Carbon neutral**–A state in which man-made emissions of greenhouse gases into the atmosphere are balanced by man-made removals of greenhouse gases from the atmosphere over a specified period.

[2] **Greenhouse gases**—Gases in the atmosphere that warm the earth by trapping infrared radiation. They include carbon dioxide, methane, and nitrous oxide.

Economy, that included the following federal infrastructure programs:

- **Investing in Canada Infrastructure Program.** From 2018 to 2028, this $33 billion program provides funding through bilateral agreements with provincial and territorial governments to invest in infrastructure projects. Its $9.2 billion green infrastructure stream (which has 2 streams, the Climate Change Mitigation sub-stream and the Adaptation, Resilience and Disaster Mitigation sub-stream) disburses funding through bilateral agreements with provinces and territories to projects that aim to build less carbon-intensive and more climate-resilient infrastructure. The program aims to avoid 10 **megatonnes of carbon dioxide equivalent (Mt CO_2 eq)**[3] emissions in the atmosphere in 2030 compared with what the emissions level would be in that year if no projects of the Investing in Canada Infrastructure Program would be implemented.
- **Disaster Mitigation and Adaptation Fund.** Launched in 2018, this program provides $2 billion from 2018 to 2028. An additional $1.375 billion in funding was announced in 2021 to extend the program until 2033, for both small- and large-scale projects, to increase the resilience of communities affected by climate change. The program aims to increase community resilience by 4.5% by 31 March 2028.
- **Green and Inclusive Community Buildings program.** As of 2021 and until 2026, this $1.5 billion program supports the construction of new buildings and improvements to existing community buildings to make them more energy efficient, less carbon-intensive, more resilient, and inclusive of all types of Canadian communities.

4.4 Another infrastructure program launched in 2017, the Smart Cities Challenge, is a competition open to municipalities, local and regional governments, and Indigenous communities to propose ways to improve the lives of their residents through better services and infrastructure. From 2017 to 2027, a total of $300 million in prizes will be awarded to winners of this pan-Canadian competition.

[3] **Megatonne of carbon dioxide equivalent (Mt CO_2 eq)**—The amount of a greenhouse gas that has the same warming potential as a million tonnes (a megatonne) of carbon dioxide over a specified period.

Climate Lens assessment tool

4.5 Infrastructure Canada, with support from Environment and Climate Change Canada, developed the Climate Lens tool to promote and enable the estimation of expected reductions in GHG emissions, and the assessment of climate risks and resilience outcomes of proposed climate-ready infrastructure projects. The department launched the tool on 1 June 2018 for those managing major capital infrastructure projects under 3 federal infrastructure funding programs having climate-related objectives (also mentioned in paragraph 4.3):

- the Investing in Canada Infrastructure Program's green infrastructure stream, including the Climate Change Mitigation sub-stream and the Adaptation, Resilience and Disaster Mitigation sub-stream—for projects with total eligible costs of more than $10 million
- the Disaster Mitigation and Adaptation Fund—for projects with total eligible costs of more than $1 million
- the Smart Cities Challenge—for finalist projects with total eligible costs of more than $10 million that aimed to mitigate or adapt to climate change

4.6 Infrastructure Canada applied the Climate Lens tool to these 3 programs over different time periods (Exhibit 4.1). Funded individuals and organizations were to receive their first payment only after the department had approved their Climate Lens assessment report. The tool had 3 objectives:

- to provide an eligibility test for projects applying through the climate-focused green infrastructure stream of the Investing in Canada Infrastructure Program
- to provide information on the expected GHG emission reduction and resilience outcomes of individual projects requesting funding under the Investing in Canada Infrastructure Program, the Smart Cities Challenge (finalists only), and the Disaster Mitigation and Adaptation Fund
- to encourage project planners to make better choices and to contribute to the federal, provincial, and territorial objectives of the Pan-Canadian Framework for Clean Growth and Climate Change

Exhibit 4.1—Infrastructure Canada programs and the Climate Lens at a glance

Infrastructure Canada programs	
Program	**Start and end dates**
Smart Cities Challenge	2017–2027
Investing in Canada Infrastructure Program	2018–2028
Disaster Mitigation and Adaptation Fund	2018–2033
Green and Inclusive Community Buildings (GHG and climate resilience embedded into the program requirements)	2021–2026
Climate Lens Assessment Tool For expected greenhouse gas emission reductions and climate resilience outcomes; applied to Investing in Canada Infrastructure Program, Disaster Mitigation and Adaptation Fund, and Smart Cities Challenge	
Version of tool	**Start and end dates**
First Climate Lens	Mandatory between June 2018–March 2021 Optional as of April 2021
Second Climate Lens	April 2021, with no end date

4.7 In addition to the Climate Lens tool, Infrastructure Canada developed another approach to assess the contribution of the Green and Inclusive Community Buildings program to meeting climate change objectives. In the other approach, the department required program applicants to provide climate-related information for their proposed infrastructure projects directly in their submission to the department.

Roles and responsibilities

4.8 **Infrastructure Canada.** The department is responsible for delivering funding programs tied to priorities such as rural and northern communities' infrastructure; less polluting, more durable, more accessible, and more inclusive infrastructure; as well as public transit and transportation infrastructure. By working with provinces, territories, municipalities, and communities, including

Indigenous communities, Infrastructure Canada is responsible for delivering investments and reporting on climate-related expected outcomes under the following programs included in our audit:

- Investing in Canada Infrastructure Program ($33 billion) with its $9.2 billion Green Stream
- Smart Cities Challenge ($300 million)
- Disaster Mitigation and Adaptation Fund ($3.375 billion)
- Green and Inclusive Community Buildings ($1.5 billion)

4.9 The department is also responsible for the design and implementation of the Climate Lens assessment tool.

Focus of the audit

4.10 This audit focused on whether Infrastructure Canada designed and implemented a climate lens approach to designated projects under selected funding programs, and whether investments under these programs contributed to more resilient and inclusive, and less carbon-intensive infrastructure investments.

4.11 This audit is important because infrastructure that is more resilient and less carbon intensive will lower economic and human costs incurred by Canadians in the future. Climate change effects are increasing and are rapidly becoming more severe and more frequent, and federal programs put in place to mitigate climate change and adapt to its effects need to be effective to minimize the cost of damage caused by these events.

4.12 More details about the audit objective, scope, approach, and criteria are in **About the Audit** at the end of this report.

Findings, Recommendations, and Responses

Overall message

4.13 Overall, we found that Infrastructure Canada designed and implemented a way to assess whether the infrastructure projects it funded under some programs were more climate-resilient and helped reduce greenhouse gas emissions. However, because the department received incomplete or unreliable information about the expected climate mitigation and resilience benefits of the

projects it funded, it did not know the extent to which its investments supported less carbon-intensive and more resilient infrastructure. The department has planned to invest more than $12.8 billion in 3 programs until 2033 to help fund infrastructure such as public transit.

4.14 We had concerns with Infrastructure Canada's tool called the Climate Lens, which assesses whether proposed projects could better withstand the effects of climate change, such as increasing floods and wildfires, and could reduce greenhouse gas emissions. The initial design of the Climate Lens, which was rolled out in 2018, required those managing infrastructure projects to provide detailed estimates of their projects' expected emission reductions on the basis of clear guidance. However, in the 2021 version of the Climate Lens, these requirements were weakened. This reduced the department's ability to track and report on the programs' contribution toward their climate-related objectives.

4.15 Because Infrastructure Canada did not have complete or reliable information on the expected climate mitigation and resilience benefits of the projects it funded, it did not report publicly on the expected climate change outcomes of its infrastructure funding programs. In addition, because the department did not integrate Canada's commitments to meeting the United Nations' Sustainable Development Goals into the design of its programs, it did not monitor or report on whether the programs were contributing to these goals. The department incorporated gender-based analysis plus in the design of its programs and collected related information from project proponents, but it did not consistently measure and report on outcomes, making it difficult to track contributions to the government's gender, diversity, and inclusivity commitments. Without complete and reliable information on the expected benefits of funded projects, the government will not be able to tell whether its investments contributed to less carbon-intensive and more resilient infrastructure or to enhancing diversity and inclusion.

Evolution of the Climate Lens

Infrastructure Canada weakened the requirements of the Climate Lens tool while implementing a better approach

What we found

4.16 We found that Infrastructure Canada's first version of the Climate Lens assessment tool, which was used until March 2021,

enabled project proponents for the designated Investing in Canada Infrastructure Program and Disaster Mitigation and Adaptation Fund projects to systematically estimate expected GHG emission reductions and resilience outcomes on the basis of international standards. This provided the department with some assurance that the information reported for each project was reliable. After March 2021, the department launched the second version of the Climate Lens tool on the basis of stakeholder feedback and to help expedite the approval process to release funding. This resulted in weaker requirements for proponents and reduced the quantity and reliability of information, as well as the assurance the department received on projects' contributions to less carbon-intensive, more resilient infrastructure.

4.17 We also found that Infrastructure Canada's Green and Inclusive Community Buildings program integrated clear requirements to provide estimates of expected GHG emission reduction and resilience outcomes. This program's approach was a clear improvement to the second version of the Climate Lens tool, which will run in parallel with the program until 2026.

4.18 The analysis supporting this finding discusses the following topics:

- Sound design of the first version of the Climate Lens tool
- Weakened second version of the Climate Lens tool
- Stronger approach to considering climate change benefits in a new funding program running in parallel with those using the Climate Lens tool

Why this finding matters

4.19 This finding matters because by systematically and reliably estimating their projects' expected GHG emission reduction and resilience outcomes, project planners will become better at developing projects that result in less carbon-intensive and more resilient infrastructure. In addition, improved information on infrastructure project proposals will allow the government to make investment decisions that contribute to less carbon-intensive and more resilient infrastructure.

Context

4.20 Starting in June 2018, the Climate Lens tool included guidance for project proponents on what information to include in

their submissions, and on estimating the expected GHG emission reductions of their proposed infrastructure projects. The tool also included guidance on how to identify the risks and potential effects of future climate change on their infrastructure projects, as well as measures they could incorporate in their projects to build resilience.

4.21 Depending on the particular criteria that applied to a proposed project (Exhibit 4.2), a proponent may have needed to provide an analysis demonstrating that their project would achieve climate change-related objectives to have their projects approved. When a project required a Climate Lens assessment, proponents had to undertake and submit either a mitigation assessment, a resilience assessment, or both, depending on the program, the funding stream, and the project's estimated total eligible cost.

Exhibit 4.2—Criteria for projects to require a Climate Lens assessment

Programs and streams	Mitigation assessment	Resilience assessment	When to submit
Investing in Canada Infrastructure Program—Green infrastructure stream			
• Climate Change Mitigation sub-stream	All projects	If total eligible project cost is $10 million or greater	Mitigation assessment due at time of application. Resilience assessment due before first federal payment, if required.
• Adaptation, Resilience and Disaster Mitigation sub-stream	If total eligible project cost is $10 million or greater	All projects	Mitigation assessment due before first federal payment, if required. Resilience assessment due at time of application.
Smart Cities Challenge Challenge-winning projects only	If total eligible project cost is $10 million or greater and the project is a climate change mitigation project	If total eligible project cost is $10 million or greater and the project is a climate change adaptation, resilience or disaster mitigation project	Greenhouse gas mitigation and resilience assessments are due before first federal payment.

Programs and streams	Mitigation assessment	Resilience assessment	When to submit
Disaster Mitigation and Adaptation Fund	All projects	The Climate Change Resilience assessment is built into the Disaster Mitigation and Adaptation Fund application guide	Resilience assessment to be submitted as part of the project application. Greenhouse gas mitigation assessments are due before first federal payment.

Recommendation

4.22 Our recommendation in this area of examination appears at paragraph 4.32.

Analysis to support this finding

Sound design of the first version of the Climate Lens tool

4.23 We found that the first version of the Climate Lens tool, which was required from June 2018 to March 2021, had a sound design. Infrastructure Canada asked project proponents to provide assessments of expected climate change mitigation and resilience outcomes using recognized international standards, such as ISO 31000 (risk assessment) and ISO 14064 (GHG accounting). If applied as intended, these requirements would provide the department with the assurance that the information received from each proponent was complete and reliable.

4.24 The Climate Lens tool included provisions for 2 assessment reports: 1 report for a mitigation assessment and 1 report for a resilience assessment. Project proponents also had to provide an attestation prepared by a qualified professional that these assessments conformed to recognized standards and had been prepared by a qualified professional, such as a GHG accounting professional or a professional engineer with GHG quantification training or project-related expertise. This design ensured that the department would be able to obtain reliable information on

- a project's expected mitigation and resilience outcomes
- expected energy efficiency gains

- reduced energy costs
- improvements to the safety and resilience of Canadian communities

4.25 We also found that the department developed a Climate Lens general guidance document for proponents that explained the technical aspects and requirements of the international standards used. This document helped proponents estimate expected GHG emission reductions and conduct climate change resilience assessments, and it included a variety of resources to assist project proponents. In addition, Infrastructure Canada developed guidance for department officials to evaluate proponents' Climate Lens reports. The guidance and related assessment tools detailed the steps and controls to be conducted in order to assess the applications against the Climate Lens requirements.

4.26 Infrastructure Canada consistently presented the eligibility criteria for project selection and the Climate Lens requirements across all documentation pertaining to the Climate Lens tool we examined.

Weakened second version of the Climate Lens tool

4.27 In March 2021, Infrastructure Canada started using an updated version of the Climate Lens tool. Following feedback from stakeholders, the department reduced the number of reporting requirements for proponents and simplified them. We found that these changes meant that the department received less information on projects' contributions to less carbon-intensive and more resilient infrastructure. For example, the updated Climate Lens assessment template required that project proponents only provide summary information on expected mitigation and resilience outcomes. In contrast, the first Climate Lens tool required the proponents to submit detailed information and a professional attestation that information was prepared using recognized standards.

4.28 The department noted that the new streamlined approach would help expedite the approval of proponents' Climate Lens assessments and therefore help reduce an internal approval backlog. In addition, because program funding could only be released upon the department's approval of a proponent's Climate Lens assessment, this would help with the timely implementation of the funding programs.

4.29 The main changes from the first to the second version of the Climate Lens assessment tool included

- eliminating the requirement for resilience and mitigation assessments to be based on international standards and prepared by a qualified professional
- eliminating the requirement to provide a professional attestation of the qualification of the party completing the assessment, and of the assessment's conformity with the standards and departmental guidance
- eliminating the requirement to submit a report showing the analysis supporting the expected GHG emission reductions estimates, or the climate risk assessments
- only summary information and plain language explanations, which resulted in fewer and less specific technical requirements
- developing new, sector-specific guidance for estimating the expected GHG emission reductions

4.30 For example, compared with the first version of the Climate Lens, which required detailed information and analyses from proponents, the second version of the Climate Lens required, at a minimum, that proponents specify whether they

- expected their projects to result in GHG emission reductions
- had used or were considering the use of best practices, mitigation measures, or clean technology in the design of their project
- had consulted or would consult international standards or GHG assessment guidance to understand the outcomes of their projects

4.31 We found that, while these changes aimed to ease the preparation of climate-related information by project proponents, they also weakened the Climate Lens tool and compromised the consistency and reliability of the emission reductions and climate resilience information that proponents would include in their submissions. In turn, because detailed analyses would not be provided anymore, this meant that the department would not be able to easily validate each individual project's contribution toward meeting program-level climate change objectives.

4.32 Recommendation. To help ensure that it receives reliable information on the expected climate change benefits of infrastructure projects, Infrastructure Canada should require that information be prepared on the basis of clear, specific, and internationally recognized quality criteria for proponents to use when preparing emission reduction and climate resilience information for their proposed projects.

The department's response. *Agreed.*

See the **List of Recommendations** at the end of this report for detailed responses.

Stronger approach to considering climate change benefits in a new funding program running in parallel with those using the Climate Lens tool

4.33 A key eligibility criterion of the new infrastructure funding program launched in 2021, the Green and Inclusive Community Buildings program, was that proponents must include analyses demonstrating that proposed projects will achieve climate change-related objectives in their submissions. We found that this program integrated requirements to provide assessments of expected GHG emission reductions and resilience outcomes in its application form and was well designed in that respect. The requirements for assessing expected climate outcomes were an improvement over the weakened requirements of the second version of the Climate Lens tool. The Green and Inclusive Community Buildings program will run in parallel with the tool until 2026.

4.34 Under the Green and Inclusive Community Buildings program, for projects targeting existing infrastructure, improvements in the design of the program included the requirement that proponents demonstrate that their project would not lead to an increase in GHG emissions. In addition, projects that aimed to achieve a greater amount of GHG emission reductions were ranked higher and therefore prioritized as part of a merit-based stream of the program. In the case of new building projects, eligible proponents had to provide evidence that the building would either be built to be net-zero carbon or net–zero-carbon-ready. Proponents from remote or northern communities who obtained an exemption from using net-zero carbon design standards had to demonstrate that a new building would nevertheless exceed the highest energy efficiency standards in use at the project location.

4.35 At the end of our audit period, Infrastructure Canada was developing the contribution agreement template for the Green and Inclusive Community Buildings program, but its provisions had not yet been finalized. The department planned that signed contribution agreements would include the following conditions:

- submissions of annual progress reports for all contribution-based projects, except for very small and short-duration projects (under a year)
- submission of a final report after project completion, along with information with respect to all the applicable performance indicators
- Canada Green Buildings Council certification for net-zero new builds

Additionally, contribution agreements would stipulate that proponents had to include information on retrofitted or new building project results and progress made toward meeting their climate-related goals. For example, the annual and final reports required, at a minimum, information on results and progress on a building's net energy savings and net GHG emission reductions.

4.36 Another improvement of the program's climate-related requirements over the second version of the Climate Lens tool was the use of a tool for accounting for GHG emissions called RETScreen. In April 2021, Infrastructure Canada signed a memorandum of understanding with Natural Resources Canada to use RETScreen, which was integrated into the Green and Inclusive Community Buildings' application requirements. This software estimates energy savings and GHG emission reductions once the proponent has entered values for required variables and attributes of infrastructure projects. RETScreen helps proponents estimate energy and emission savings more accurately and consistently, using a standard approach and methodology that have been validated by experts.

4.37 Department officials mentioned that this approach may be replicated in its future funding programs. We also found that the department improved the methodology and guidance developed to complete the required assessments compared with the second version of the Climate Lens tool.

Implementing the Climate Lens

Infrastructure Canada could not rely on all information gathered from Climate Lens assessments

What we found

4.38 We found that Infrastructure Canada inefficiently managed the climate-related information it received from proponents. For example, we found that the department did not document all the relevant climate-related information pertaining to project proponent submissions in its data storage systems. We also found many instances where department officials inaccurately transferred information between internal systems, making this information unreliable.

4.39 We found that data prepared using the first version of the Climate Lens tool provided the department with some assurance that individual projects would result in emission reductions and resilience outcomes. However, we found that Infrastructure Canada did not have the assurance that the mitigation and resilience outcome assessments prepared by proponents using the weakened Climate Lens tool were complete, reliable, and comparable.

4.40 The analysis supporting this finding discusses the following topics:

- Inefficient management of climate-related information
- Unreliable information prepared by proponents using the weakened second version of the Climate Lens tool

Why this finding matters

4.41 This finding matters because if Infrastructure Canada obtains unreliable information from project proponents, it cannot know with confidence the expected contribution of individual funded projects to avoided emissions or built resilience. Further, this means that the department cannot easily assess program-level or department-level expected climate change outcomes for its investments.

Context

4.42 To deliver the Investing in Canada Infrastructure Program, Infrastructure Canada signed long-term bilateral agreements with all 13 provinces and territories to invest in infrastructure projects, including projects aiming to build

- public transit
- more resilient and less carbon-intensive infrastructure
- wind turbines
- broadband connectivity infrastructure
- ferry replacements
- recreational, cultural, and community infrastructure for rural and northern communities

4.43 Under these agreements, the provinces and territories are responsible for selecting and prioritizing projects that aim to contribute to the outcomes targeted by the funding stream of the Investing in Canada Infrastructure Program. Infrastructure Canada accepts the Climate Lens assessment report at different stages of project consideration (Exhibit 4.2).

4.44 The Disaster Mitigation and Adaptation Fund supports small- and large-scale infrastructure projects and aims to help communities become resilient to current and future climate risks by building natural infrastructure, like wetlands, or built infrastructure such as dams or dikes. Infrastructure Canada signs contribution agreements with funding recipients directly responsible for implementing funded projects. Infrastructure Canada accepts the Climate Lens assessment report at different stages of project consideration (Exhibit 4.2).

4.45 The Green and Inclusive Community Buildings program involves constructing new community buildings serving high-needs and underserved communities across Canada. Funding under the program is provided directly to recipients. The Smart Cities Challenge funding prizes are also awarded directly to winners of the pan-Canadian competition. For both of these programs, Infrastructure Canada accepts the Climate Lens assessment report as part of the project application process (Exhibit 4.2).

4.46 Once Infrastructure Canada receives a Climate Lens assessment report from a project proponent, a department official transfers climate-related data into the department's information storage system. The official then checks whether the assessment

report contains all the required information, and follows up with the proponent if information is missing or unclear. The first payment is released only after the department reviews and is satisfied with a proponent's mitigation and resilience outcomes information.

Recommendations

4.47 Our recommendations in this area of examination appear at paragraphs 4.54 and 4.62.

Analysis to support this finding

Inefficient management of climate-related information

4.48 We found that Infrastructure Canada poorly managed climate-related information submitted by project proponents. Not all relevant information from the Climate Lens assessment reports was transferred from proponents' submissions into Infrastructure Canada's databases, as required. There were discrepancies between the information found in submissions and what was recorded in 7 departmental databases, as well as discrepancies in information between departmental databases. We also found data formats for the same type of information, such as expected GHG emission reductions, to be inconsistent within and across internal databases. This made the information either unreliable or difficult to analyze for the purpose of measuring projects and program results or outcomes.

4.49 When we looked at the implementation of the Climate Lens tool, we found that Infrastructure Canada's procedures for extracting, reviewing, and recording the information included in proponents' submissions varied across programs. For the Investing in Canada Infrastructure Program, the department's process allowed project proponents to submit their files through different department systems (for example, email or database systems). However, the Disaster Mitigation and Adaptation Fund program submissions had to be emailed using a specific file format. Applicants to the Green and Inclusive Community Buildings program had to use a unique software to submit their documentation. We also found submitted Climate Lens information stored in another location, in Infrastructure Canada's generic GCDocs repository, which is the Government of Canada's shared electronic document and records management system.

4.50 After filing the submissions in their respective systems, Infrastructure Canada checked the completeness of Climate Lens assessments submitted by proponents under the Investing in Canada Infrastructure Program and the Disaster Mitigation and Adaptation Fund program and documented the observations in GCDocs. Next, the department reviewed whether the information met the requirements of the Climate Lens tool on the basis of a test it developed. It then transferred the Climate Lens information into the Project Information Management system for the Investing in Canada Infrastructure Program and other databases for the Disaster Mitigation and Adaptation Fund program. These databases recorded expected GHG emission reduction estimates, high and medium climate risks, and expected resilience outcomes that proponents included in their project submissions. For the Green and Inclusive Community Buildings program, the department reviewed and transferred this same information into its assessment grids system.

4.51 When we examined 42 randomly selected individual files for the Investing in Canada Infrastructure Program and 29 randomly selected files for the Disaster Mitigation and Adaptation Fund program, we found several discrepancies in content at different stages of information storage. The following 2 examples illustrate the types of discrepancies we found:

- In 7 instances for these 2 programs, the value of a GHG emission reduction estimate in a submission differed from the value recorded in the Climate Lens review and test report, or from the value recorded in the project information management system.
- For 16 projects under the Disaster Mitigation and Adaptation Fund program, we noted that the mitigation information had not been stored in the databases Infrastructure Canada had identified for that purpose.

4.52 For the Green and Inclusive Community Buildings program, we found that all 5 proponents whose projects had been approved provided the required information on expected GHG emission reductions and resilience outcomes. The department accurately recorded this information from the project submissions into its assessment grids repository. For the only project funded under the Smart Cities Challenge that had to submit a Climate Lens assessment, Infrastructure Canada stored this information in a location different from any of the ones used for the other programs we examined.

4.53 Taken together, the errors and discrepancies we observed constituted, in our view, an inefficient management of information by the department. Further, it meant that the information found in 7 different databases could not be relied upon.

4.54 **Recommendation.** To ensure the efficient management of climate mitigation and resilience outcomes information it receives from project proponents, and to ensure the completeness and reliability of this information, Infrastructure Canada should integrate its information management procedures, and establish effective and efficient data transfer protocols and quality controls as this information is pulled from submissions and transferred in internal systems.

The department's response. *Agreed.*

See the **List of Recommendations** at the end of this report for detailed responses.

Unreliable information prepared by proponents using the weakened second version of the Climate Lens tool

4.55 We found that Infrastructure Canada did not have assurance on the reliability, completeness, or comparability of all the individual estimates of expected GHG emission reduction and resilience outcomes prepared by proponents under the Investing in Canada Infrastructure Program and the Disaster Mitigation and Adaptation Fund program. This meant that the department could not rely on this information to combine individual projects' expected results and track progress toward program-level climate-related objectives.

4.56 In 2018, the department established detailed procedures for its officials to assess proponents' submitted information using the first version of the Climate Lens (see paragraph 4.25). In March 2021, Infrastructure Canada modified its review process and started using the requirements from the weakened second version of the Climate Lens tool (see paragraph 4.29) to review information from new submissions. The intent of the simplified second version of the Climate Lens tool was not only to facilitate the timely completion of proponents' assessments, but also to help expedite project approvals and address a backlog of projects from the implementation of the first version of the tool.

4.57 After the launch of the second version of the tool in March 2021, Infrastructure Canada no longer received a detailed report from proponents outlining the analysis supporting the

expected emission reductions estimate, and the department no longer had the information to easily validate these aspects. Accordingly, we found that the department updated its internal checklist and guidance for its officials with fewer and more simplified review requirements. The objective of the revised process was to minimize the burden on project proponents by removing the previous requirement for detailed emission reduction and resilience assessments. Yet the department remained accountable for reporting on reductions against the emission reductions target of 10 Mt CO_2 eq by 2030 and thus had to review and confirm the emission reductions of projects.

4.58 To make up for the reduced information and assurance it received on expected emission reductions under the weakened Climate Lens tool, Infrastructure Canada set out to publish sector-specific guidance. This guidance would help project proponents complete their assessments by providing them with best practices and clear guidance and methodology for estimating emission reductions. Infrastructure Canada had planned to issue this guidance in phases by sector, starting with the buildings sector in March 2021. However, by the end of our audit period on 31 December 2021, we found that the department had not yet published the guidance.

4.59 Our examination of Infrastructure Canada's implementation of the first version of the Climate Lens tool showed that almost all of the data on expected GHG emission reductions submitted by proponents and resilience outcomes data under the relevant programs were prepared using the ISO14064-2 and ISO-31000 standards. Additionally, submissions included attestations for conformity by a qualified third-party professional. As such, Infrastructure Canada had the assurance that the data provided by proponents was consistent with these standards and thus reliable. This allowed the department to know whether its programs would contribute to emission reductions or resilience outcomes.

4.60 In turn, our examination of Infrastructure Canada's implementation of the second version of the Climate Lens tool showed that, consistent with the simplified review checklists, the attestations that used to occur under the first version of the tool did not take place. We found that when proponents used the weakened version of the tool to prepare their mitigation and resilience outcomes assessments, even if they could elect to do so, the submissions did not provide any attestation in almost all cases. Despite the simplified rules, we found that a few submissions still referenced relevant ISO standards.

4.61 We found that the weakened requirements under the second version of the tool hindered Infrastructure Canada's ability to assess and combine at the program level the expected climate change mitigation and resilience outcomes of funded projects. Department officials admitted that in their experience in implementing the Climate Lens tool so far, there had been considerable variability in the emission reduction estimates provided by proponents. To address this issue, the department set out to follow up with proponents on a case-by-case basis and request further information on their estimates.

4.62 **Recommendation.** To ensure it can consistently implement the Climate Lens tool and account for the expected GHG emission reductions and resilience outcomes of submitted projects with confidence, Infrastructure Canada should specify data completeness and comparability criteria to be met and should implement vetting procedures to validate that the quality of information received enables the compilation of program-level achievements.

The department's response. *Agreed.*

See the **List of Recommendations** at the end of this report for detailed responses.

Reporting on expected and actual outcomes

Infrastructure Canada did not publicly report expected climate-related project outcomes

What we found

4.63 We found that Infrastructure Canada reported internally on expected GHG emission reduction and resilience outcomes of funded infrastructure projects but that the department did not report on expected outcomes publicly because it considered that, overall, the information was unreliable.

4.64 The analysis supporting this finding discusses the following topic:

- No public reporting of projects' expected outcomes for mitigation and resilience

Why this finding matters

4.65 This finding matters because information on expected GHG emission reduction and climate resilience outcomes from projects is key for demonstrating how these projects, and ultimately the funding programs, aim to contribute to more resilient, less carbon-intensive, and inclusive infrastructure. Reporting transparently and publicly on expected results is important because it informs Canadians about what the government expects to achieve with public spending on programs that are supposed to contribute toward its climate change goals.

Context

4.66 The Climate Lens tool aims to inform Infrastructure Canada if it is raising awareness among proponents so they can design projects that contribute to achieving

- Canada's 2030 GHG emission reduction target
- Canada's 2050 net-zero objective
- Canada's commitment to reduce the vulnerability and exposure of humans and infrastructure to the effects of climate change

Further, the Climate Lens tool aims to enable the department to better communicate the expected outcomes of federally supported infrastructure projects to Canadians with respect to expected GHG emission reduction and resilience outcomes of projects.

Recommendation

4.67 Our recommendation in this area of examination appears at paragraph 4.72.

Analysis to support this finding

No public reporting of projects' expected outcomes for mitigation and resilience

4.68 We found that Infrastructure Canada did not report publicly on the expected climate change outcomes of federally financed infrastructure projects. Department officials noted that they did not

release this information to the public because of a lack of reliability and comparability of expected GHG emission reduction estimates and resilience outcomes prepared by individual recipients, which prevented the aggregation of expected results under the program.

4.69 We found that the department reported publicly on the number of mitigation and resilience Climate Lens assessments completed. It also reported on some mitigation efforts, such as the percentage of municipalities that built or enhanced their capacity to reduce GHG emissions and adapt to climate change as a result of federal funding and GHG emissions per capita in current year. However, this information did not include estimates of expected GHG emission reduction and resilience outcomes of funded projects, meaning that the department had not reported on how its investments had contributed to more resilient, less carbon-intensive, and more inclusive infrastructure.

4.70 Nonetheless, Infrastructure Canada produced internal reports on partial program-level results for expected GHG emission reduction and resilience outcomes provided by funding recipients in their submissions. This was done to provide an order of magnitude of potential outcomes. Here are 2 examples of program outcome information contained in internal reports:

- According to a departmental internal results report in September 2021, based on Disaster Mitigation and Adaptation Fund project information, the percentage of expected increase in resilience was 9%, which is above the target of a 4.5% average across all identified indicators.
- According to an internal report on the Investing in Canada Infrastructure Program, Infrastructure Canada estimated, on the basis of the infrastructure projects considered, that as of August 2021, a sum of 2.4 Mt CO_2 eq of GHG emissions could be avoided by 2030. This amount would count toward the Investing in Canada Infrastructure Program's target of avoiding 10 Mt CO_2 eq in 2030 compared with the scenario where no Investing in Canada Infrastructure Program projects would be implemented.

4.71 According to international standards, when combining individual estimates of the reductions in GHG emissions expected from different projects under a program, it is essential that these individual estimates of reductions be prepared using comparable data, methods, criteria, and assumptions. Because Infrastructure Canada did not have reliable and comparable estimates of expected reductions for all projects under the Investing in Canada Infrastructure Program, it reported internally, but not publicly, on

the sum of expected reductions and resilience outcomes from projects it funded.

4.72 **Recommendation.** Building on information it collects from program applicants and processes internally on the climate change benefits of funded projects, Infrastructure Canada should develop and implement program-level performance indicators of estimated emission reductions and resilience outcomes and report them publicly.

The department's response. *Agreed.*

See the **List of Recommendations** at the end of this report for detailed responses.

Infrastructure Canada did not measure its programs' contribution to the United Nations' Sustainable Development Goals

What we found

4.73 We found that Infrastructure Canada did not identify targets and indicators for 2 United Nations' Sustainable Development Goals (goals 9 and 13) in its planning and reporting of results for the following programs:

- Investing in Canada Infrastructure Program
- Disaster Mitigation and Adaptation Fund program
- Smart Cities Challenge
- Green and Inclusive Community Buildings program

4.74 The analysis supporting this finding discusses the following topic:

- No targets with indicators identified to assess program contribution to United Nations' Sustainable Development Goals

Why this finding matters

4.75 This finding matters because the federal government, including Infrastructure Canada, committed to implementing the United Nations' 2030 Agenda for Sustainable Development and

achieving the Sustainable Development Goals in Canada. It is important to adopt specific targets, establish indicators to measure results, and track progress against these targets to show how infrastructure spending is contributing to the achievement of the Sustainable Development Goals.

Context

Build resilient infrastructure, promote sustainable industrialization and foster innovation

Source: United Nations

4.76 In September 2015, Canada committed to achieving the United Nations' 2030 Agenda for Sustainable Development. We examined the actions of Infrastructure Canada in support of 2 of the United Nations' Sustainable Development Goals:

- Goal 9—Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
- Goal 13—Take urgent action to combat climate change and its effects

These goals have the following associated targets:

Take urgent action to combat climate change and its impacts

Source: United Nations

- 9.1—Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all
- 9.4—By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities
- 13.1—Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries
- 13.2—Integrate climate change measures into national policies, strategies and planning
- 13.3—Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning

Recommendation

4.77 Our recommendation in this area of examination appears at paragraph 4.79.

Analysis to support this finding

Ensure access to water and sanitation for all

Source: United Nations

Make cities inclusive, safe, resilient and sustainable

Source: United Nations

No targets with indicators identified to assess program contributions to United Nations' Sustainable Development Goals

4.78 Infrastructure Canada indicated that the Investing in Canada Infrastructure Program, the Disaster Mitigation and Adaptation Fund program, the Smart Cities Challenge, and the Green and Inclusive Community Buildings program were related to or aligned with the Sustainable Development Goals on industry, innovation, and infrastructure (goal 9), and on climate action (goal 13). We noted that the department also mentioned 2 other goals, on clean water and sanitation (goal 6) and on sustainable cities and communities (goal 11). However, we found that in its planning and reporting of results documents, the department did not identify targets with indicators for any of the Sustainable Development Goals it identified.

4.79 **Recommendation.** Infrastructure Canada should identify the targets for the Sustainable Development Goals that a federal infrastructure program will contribute to, and establish performance indicators specific to each and use them to track and report publicly on progress.

The department's response. *Agreed.*

See the **List of Recommendations** at the end of this report for detailed responses.

Infrastructure Canada did not consistently measure and report on the programs' gender, diversity, and inclusivity outcomes

What we found

4.80 We found that Infrastructure Canada had undertaken a gender-based analysis plus (GBA Plus) analysis when its programs were designed, to help decision makers understand the broader potential impact of the proposed program. The department also reported on some GBA Plus aspects related to the programs examined. However, the department did not identify GBA Plus outcomes for its programs, making it difficult to consistently measure how each program contributed to achieving gender, diversity, and inclusivity goals and commitments.

4.81 The analysis supporting this finding discusses the following topic:

- Lack of consistent measuring and reporting on contributions toward gender, diversity, and inclusivity

Why this finding matters

4.82 This finding matters because climate change effects on infrastructure disproportionately affect vulnerable northern and coastal populations and other regions more at risk, as well as lower-income communities. When developing programs and policies, federal departments are required to assess and respond to the needs of diverse groups of Canadians that are more vulnerable, including Indigenous peoples. To do so, departments need to identify those vulnerable groups, measure the effects of their policies on vulnerable people, and adjust policies and programs to achieve better gender, diversity, and inclusivity outcomes. This requires establishing performance outcomes with appropriate indicators to measure results and track progress.

Context

4.83 GBA Plus is an analytical process that provides a method for the assessment of systemic inequalities, as well as a means to assess how diverse groups of women, men, and gender-diverse people may experience policies, programs, and initiatives. The “plus” in GBA Plus acknowledges that GBA Plus is not just about biological (sexes) and socio-cultural (genders) differences. It considers many other identity factors, such as race, ethnicity, religion, age, and mental or physical disability. Ultimately, GBA Plus analysis helps establish whether there is a need for social inclusivity measures through federal programs to improve social equity.

4.84 The GBA Plus tool helps federal departments identify unintended effects of their programs on vulnerable or equity-seeking communities and mitigate the barriers these groups may face in accessing federal funding. We expected that the department considered GBA Plus in the design and delivery of the 4 programs examined and reported on in their respective GBA Plus results.

Recommendation

4.85 Our recommendation in this area of examination appears at paragraph 4.89.

Analysis to support this finding

Lack of consistent measuring and reporting on contributions toward gender, diversity, and inclusivity

4.86 We found that Infrastructure Canada conducted a GBA Plus analysis for each of the 4 programs that we examined. These assessments identified the GBA Plus implications of the proposed infrastructure investments, as well as plans to monitor the performance of the proposed program for emerging effects of GBA Plus considerations throughout implementation.

4.87 The department's GBA Plus data collection was inherent to the program design. In the context of developing project submissions, the department required proponents to identify gender, diversity, and inclusivity data related to their projects. The department collected this information through the project application process and through progress reporting for approved projects. However, we did not find evidence of any departmental analyses of anticipated effects of projects on diverse population groups and other socio-economic factors.

4.88 We found that Infrastructure Canada reported publicly on some aspects of GBA Plus in the context of its annual departmental reporting on results. However, the department did not identify gender, diversity, and inclusivity outcomes for its programs. Consequently, the existing GBA Plus indicators and targets were not clearly defined or integrated with the program outcomes, resulting in unclear program contributions to the gender, diversity, and inclusivity goals and commitments.

4.89 **Recommendation.** The department should ensure that its infrastructure programs consistently measure and report on their specific contributions toward gender, diversity, and inclusivity in order to improve the assessment of the programs' objectives and outcomes and inform the design of future programs.

The department's response. *Agreed.*

See the **List of Recommendations** at the end of this report for detailed responses.

Conclusion

4.90 We concluded that Infrastructure Canada designed and implemented a climate lens approach for designated projects under selected funding programs. The department was able to determine whether some investments under these programs will contribute to more resilient, less carbon-intensive, and inclusive infrastructure investments, but could not do so for all investments.

4.91 While the first version of the Climate Lens tool required proponents to follow international standards for assessing and reporting on expected climate-related outcomes of infrastructure projects, these requirements were later weakened in a second version of the tool. These changes affected the comparability of the Climate Lens assessments data received by Infrastructure Canada, impacting the department's ability to measure results and track progress toward its program objectives. Since 2021, concurrently to the weakened version of the Climate Lens tool, the department was implementing a funding program with sound climate-related assessments embedded in the application requirements.

4.92 In addition, there were gaps and inaccuracies in the recording and transfer of climate-related data across the department's databases, which further compromised the integrity of this information. As a result, Infrastructure Canada had not reported publicly on the expected climate change outcomes of its investment programs and was not in a position to do so.

Subsequent Event

4.93 We state in paragraph 4.68 of this report that Infrastructure Canada did not report publicly on the expected climate change outcomes of federally financed infrastructure projects. On 1 February 2022, after the period covered by our audit, Infrastructure Canada published its 2021 Departmental Results Report, which presented an estimated result for the Investing in Canada Infrastructure Program—Green Stream. According to the department, 71 projects funded by the program during the 2020–21 fiscal year are expected to result in a reduction of 2.7 Mt CO_2 eq below the projected emissions level if none of these projects would be implemented in 2030.

About the Audit

This independent assurance report was prepared by the Office of the Auditor General of Canada on climate considerations for federally funded infrastructure. Our responsibility was to provide objective information, advice, and assurance to assist Parliament in its scrutiny of the government's management of resources and programs, and to conclude on whether Infrastructure Canada's climate lens approach to designated projects complied in all significant respects with the applicable criteria.

All work in this audit was performed to a reasonable level of assurance in accordance with the Canadian Standard on Assurance Engagements (CSAE) 3001—Direct Engagements, set out by the Chartered Professional Accountants of Canada (CPA Canada) in the CPA Canada Handbook—Assurance.

The Office of the Auditor General of Canada applies the Canadian Standard on Quality Control 1 and, accordingly, maintains a comprehensive system of quality control, including documented policies and procedures regarding compliance with ethical requirements, professional standards, and applicable legal and regulatory requirements.

In conducting the audit work, we complied with the independence and other ethical requirements of the relevant rules of professional conduct applicable to the practice of public accounting in Canada, which are founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality, and professional behaviour.

In accordance with our regular audit process, we obtained the following from entity management:

- confirmation of management's responsibility for the subject under audit
- acknowledgement of the suitability of the criteria used in the audit
- confirmation that all known information that has been requested, or that could affect the findings or audit conclusion, has been provided
- confirmation that the audit report is factually accurate

Audit objective

The objective of this audit was to determine whether Infrastructure Canada has designed and implemented a climate lens approach to designated projects under selected funding programs, and whether investments under these programs contributed to more resilient, less carbon-intensive, and inclusive infrastructure investments.

Scope and approach

The audit looked at how Infrastructure Canada has designed and administered the Climate Lens requirement since its launch in 2018. The audit examined the evolution in the design and application of the Climate Lens to projects funded through the Investing in Canada Infrastructure Program, the Disaster Mitigation and Adaptation Fund, the

Smart Cities Challenge, and the Green and Inclusive Community Buildings program. The audit scope also included the integration of gender-based analysis plus and United Nations' Sustainable Development Goals considerations in infrastructure investment decisions.

This audit methodology included interviews with department officials, document reviews, walkthroughs of key processes, and data analyses.

To determine whether the Climate Lens tool was consistently implemented by Infrastructure Canada on the basis of the respective program's requirements, we examined Infrastructure Canada projects for the Investing in Canada Infrastructure Program, the Disaster Mitigation and Adaptation Fund program, and the Smart Cities Challenge from the start of implementation of the Climate Lens tool in 2018 to the end of the period covered by the audit on 31 December 2021.

- For the Investing in Canada Infrastructure Program, 218 projects were required to complete the Climate Lens assessments (GHG mitigation and climate resilience assessments) during that time period. A representative sample of 42 projects was examined.
- For the Disaster Mitigation and Adaptation Fund program, 69 projects were required to complete the Climate Lens assessments (GHG mitigation and climate resilience assessments) during that time period. A representative sample of 29 projects was examined.
- For the Green and Inclusive Community Buildings program, we examined all of the 5 approved projects.
- For the Smart Cities Challenge, the conditions for a Climate Lens assessment only applied to 1 program applicant, which did complete this requirement.

We did not examine:

- the entirety of the programs and initiatives under the Pan-Canadian Framework on Clean Growth and Climate Change and A Healthy Environment and a Healthy Economy
- the climate-resilient building codes and standards
- the accuracy of climate data used in project submissions

Criteria

Criteria	Sources
We used the following criteria to determine whether Infrastructure Canada has designed and implemented a climate lens approach to designated projects under selected funding programs, and whether investments under these programs contributed to more resilient, less carbon-intensive, and inclusive infrastructure investments:	
Infrastructure Canada's design of the Climate Lens enables the systematic consideration of greenhouse gas emissions and resilience risks by applicants for projects funded through the following designated programs: Investing in Canada Infrastructure Program, Disaster Mitigation and Adaptation Fund, and Smart Cities Challenge projects.	• Pan-Canadian Framework on Clean Growth and Climate Change, Environment and Climate Change Canada • A Healthy Environment and a Healthy Economy, Environment and Climate Change Canada • Investing in Canada Infrastructure Program bilateral agreements with provinces and territories • *Impact Assessment Act* • Minister of Infrastructure and Communities mandate letters, 2018, 2019 • Minister of Infrastructure and Communities supplementary mandate letter, 2021 • Various Treasury Board submissions • The Climate Lens and the Climate Lens - General Guidance document, versions 1.0, 1,2, and 2.0., Infrastructure Canada • Project-Specific GHG Guidance Modules (New buildings, Retrofits, Fleet Replacement, Renewable Energy), Infrastructure Canada
Infrastructure Canada has applied the Climate Lens to all designated Investing in Canada Infrastructure Program, Disaster Mitigation and Adaptation Fund, and Smart Cities Challenge projects, as intended.	• Investing in Canada Infrastructure Program bilateral agreements with provinces and territories • Climate Lens review process, Infrastructure Canada • Investing in Canada Infrastructure Program project review and approval process, Infrastructure Canada • Various Treasury Board submissions
Infrastructure Canada's climate lens approach has evolved to further support more resilient and less carbon-intensive infrastructure investments in new programs, as demonstrated in the design and implementation of the Green and Inclusive Community Buildings program.	• A Healthy Environment and a Healthy Economy, Environment and Climate Change Canada • Green and Inclusive Community Buildings program Applicant Guide, Infrastructure Canada

Criteria	Sources
	• Green and Inclusive Community Buildings program Application Review Guide, Infrastructure Canada • Treasury Board submission
Infrastructure Canada's programs result in more resilient and less carbon-intensive infrastructure investments and support inclusive infrastructure projects.	• Pan-Canadian Framework on Clean Growth and Climate Change, Environment and Climate Change Canada • A Healthy Environment and a Healthy Economy, Environment and Climate Change Canada • Investing in Canada Infrastructure Program bilateral agreements with provinces and territories • Achieving a Sustainable Future: A Federal Sustainable Development Strategy for Canada 2019–2022, Environment and Climate Change Canada • Departmental Sustainable Development Strategy 2020 to 2023, Infrastructure Canada • Towards Canada's 2030 Agenda National Strategy, Employment and Social Development Canada • *Impact Assessment Act* • *Canadian Gender Budgeting Act* • Minister of Infrastructure and Communities mandate letters, 2018, 2019 • Minister of Infrastructure and Communities supplementary mandate letter, 2021 • Transforming our World: The 2030 Agenda for Sustainable Development, United Nations • Policy on Results, Treasury Board • Directive on Results, Treasury Board • Guide to Integrated Risk Management, Treasury Board of Canada Secretariat • Policy on Transfer Payments, Treasury Board • Various Treasury Board submissions

Period covered by the audit

The audit covered the period from 1 April 2018 to 31 December 2021. This is the period to which the audit conclusion applies.

Date of the report

We obtained sufficient and appropriate audit evidence on which to base our conclusion on 28 February 2022, in Ottawa, Canada.

Audit team

This audit was completed by a multidisciplinary team from across the Office of the Auditor General of Canada led by David Normand, Principal. The principal has overall responsibility for audit quality, including conducting the audit in accordance with professional standards, applicable legal and regulatory requirements, and the office's policies and system of quality management.

List of Recommendations

The following table lists the recommendations and responses found in this report. The paragraph number preceding the recommendation indicates the location of the recommendation in the report.

Recommendation	Response
4.32 To help ensure that it receives reliable information on the expected climate change benefits of infrastructure projects, Infrastructure Canada should require that information be prepared on the basis of clear, specific, and internationally recognized quality criteria for proponents to use when preparing emission reduction and climate resilience information for their proposed projects.	Agreed. Infrastructure Canada is committed to continuous improvement of its evergreen Climate Lens guidance and to the consistent tracking of climate change benefits of funded infrastructure. This work will enhance clarity around the department's general Climate Lens guidance and will include developing sector-specific guidance including introducing GHG quantification modules in priority areas.
4.54 To ensure the efficient management of climate mitigation and resilience outcomes information it receives from project proponents, and to ensure the completeness and reliability of this information, Infrastructure Canada should integrate its information management procedures, and establish effective and efficient data transfer protocols and quality controls as this information is pulled from submissions and transferred in internal systems.	Agreed. While Infrastructure Canada views its information management systems as effective, there is always room for improvement. Infrastructure Canada will improve the cataloguing, documentation, and tracking of Climate Lens data throughout the project life cycle (from submission through validation, approval, and implementation).
4.62 To ensure it can consistently implement the Climate Lens tool and account for the expected GHG emission reductions and resilience outcomes of submitted projects with confidence, Infrastructure Canada should specify data completeness and comparability criteria to be met and should implement vetting procedures to validate that the quality of information received enables the compilation of program-level achievements.	Agreed. Infrastructure Canada will improve the communication and clarity of the criteria and expected data required for completeness as part of the Climate Lens guidance, and in particular through the development of sector-specific guidance consistent with ISO standards. The department will review its vetting procedures to ensure validation of the assessments to allow program-level reporting on achievements.
4.72 Building on information it collects from program applicants and processes internally on the climate change benefits of funded projects, Infrastructure Canada should develop and implement program-level performance indicators of estimated emission reductions and resilience outcomes and report them publicly.	Agreed. Although the departmental reporting cycle (Departmental Report on Results) fell outside the timeframe for the audit, the department has identified performance indicators for emission reductions and resilience and reported on them publicly. Infrastructure Canada reported on the GHG emissions reductions associated with its Investing in Canada Infrastructure Program spending in its 2021 Departmental Results

Recommendation	Response
	Report, published 1 February 2022, which states, “As of March 31, 2021, 71 approved Investing in Canada Infrastructure Program—Green infrastructure stream projects contribute to a net GHG emissions reduction of 2.7 MT (27% of target), based on forecasted levels for the reference year.” Understanding that certain program performance indicators have already been established, Infrastructure Canada will explore ways to further improve measurement and public program-level reporting on estimated emission reductions and resilience outcomes.
4.79 Infrastructure Canada should identify the targets for the Sustainable Development Goals that a federal infrastructure program will contribute to, and establish performance indicators specific to each and use them to track and report publicly on progress.	Agreed. Infrastructure Canada will report on progress for relevant targets for United Nations’ Sustainable Development Goals (SDGs) through the whole-of-government Canadian Indicator Framework and the Federal Sustainable Development Strategy, which continues to refine a set of indicators that aim to demonstrate progress toward the SDGs. In contributing to this work, the department’s input will reflect the effect of investments from its programs and initiatives.
4.89 The department should ensure that its infrastructure programs consistently measure and report on their specific contributions toward gender, diversity, and inclusivity in order to improve the assessment of the programs’ objectives and outcomes and inform the design of future programs.	Agreed. For existing programs, Infrastructure Canada will work with project proponents on reporting on gender, diversity, and inclusion, within established processes and reporting requirements such as Community Employment Benefits. Infrastructure Canada will explore opportunities to improve the measurement and reporting of its new programs toward gender, diversity, and inclusivity.