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The Jacques Cartier and Champlain Bridges Incorporated

# Climate-Related Financial Disclosures Report

- 2024-2025 -





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## The Corporation

As a manager of important infrastructure, The Jacques Cartier and Champlain Bridges Incorporated (the Corporation or JCCBI) is a federal Crown corporation established in 1978 that is responsible for the Jacques Cartier Bridge, the structure of the Québec Bridge, the Estacade, the federal sections of the Bonaventure Expressway and the Honoré Mercier Bridge, as well as the Melocheville Tunnel. With the exception of the Québec Bridge, JCCBI is also responsible for the lands comprising the right-of-way for these infrastructures, including the lands in the corridor of the original Champlain Bridge and future developments planned in the area. JCCBI's mission is to ensure user mobility, safety, and infrastructure longevity using a systemic management approach based on sustainable development.

## About this Report

This 2024-2025 climate-related financial disclosures report is based on the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD). It gives an overview of JCCBI's governance, strategies, risk management process and metrics and targets to manage climate change risks. This report is based on information available at the time of drafting. JCCBI will update its contents annually to reflect the evolution of the information and measures implemented as part of its climate change resilience approach.

## Governance

As a manager of major infrastructure, JCCBI is aware that its activities have an impact on the community and the environment. The sustainable development strategy it has adopted since 2015, and its corporate environment and sustainable development (ESD) policy provide a framework for its actions.


JCCBI is subject to the *Federal Sustainable Development Act* (FSDA) since 2020, and as such, contributes to the Federal Sustainable Development Strategy (FSDS). Fighting climate change is an integral part of JCCBI's commitments in its 2023 to 2027 Sustainable Development Strategy (SDS), which was tabled on November 1, 2023 under the FSDA. JCCBI is thus contributing to the United Nations and FSDS Sustainable Development Goal 13: *Climate action*

The guiding principles of JCCBI's corporate ESD policy (the ESD Policy) advocate for a sustainable and resilient approach in planning and carrying out its activities, including the following:

i) Integrate environmental and sustainable development issues into the governance and strategic planning processes, as well as into the planning and implementation of all projects;

ii) Design and develop reliable and safe infrastructure with a vision of sustainable development and resilience to climate change, taking into account stakeholders concerns.

Figure 1 summarizes JCCBI's ESD governance structure. Climate issues are addressed and monitored at every level of the organization.

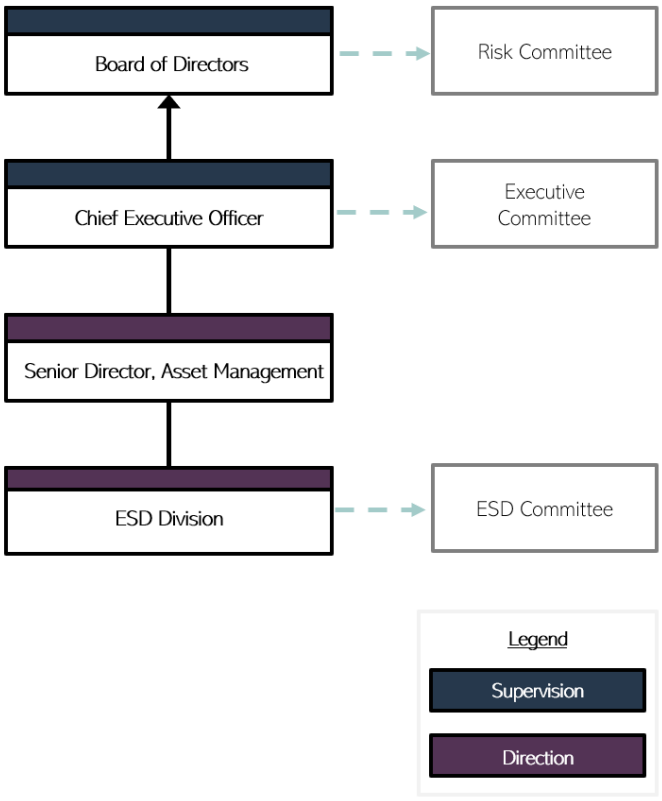


**Figure 1 Governance Structure for Climate Change Risks**

## Oversight by the Board of Directors

The Board of Directors (the Board) approves ESD directions and is responsible for monitoring ESD performance. A progress report on the implementation of actions stemming from the ESD Policy, including those related to resilience to climate change, must be produced annually and submitted to the Board.

Climate-related risks are also monitored through JCCBI's integrated corporate risk management framework, described in the Risk Management section of this report. The Board has formed a Risk Committee, which is responsible for assisting the Board in overseeing JCCBI's risk management framework and monitoring its key risks, including climate-related risks. Each year, the Corporation reassesses the severity of prioritized residual corporate risks, including infrastructure resilience risk. This reassessment is submitted to the Risk Committee and is approved by the Board.

## Management's Responsibility

JCCBI's Executive Committee promotes environmental and sustainable development management, and the commitments related thereto. This Committee sees to the efficient management of resources and tools to fulfill these commitments. The Senior Director, Asset Management and the ESD Division are responsible for implementing and updating the ESD Policy and the SDS, as well as the resulting action plan. They support JCCBI's other divisions in meeting their ESD commitments.

The ESD Committee supports the ESD Division and monitors the SDS and its performance indicators with a view to reaching the set objectives. It also reports ESD risks and opportunities to higher authorities.

## Strategy

The Corporation recognizes that climate change may affect the sustainability of the assets under its management, its operations and its investment strategies. An initial risk assessment was initiated in 2019 and a review was carried out in 2024. Over the next few years, JCCBI will begin an in-depth analysis of the financial impact of climate change on its assets, incorporating the related risks into its asset maintenance programs when updated.

## Physical Risks

The climate scenario selected for analysis is CMIP5 / RCP 8.5, a scenario of high global emissions with the most significant warming, over time periods defined as follows: short term (2011–2040), medium term (2041–2070) and long term (2071–2100). Generally, most physical risks have a low or moderate risk level. Priority risks are listed in Table 1 and will be considered in JCCBI's strategic planning.

**Table 1 Summary of Priority Physical Risks**

| Risks | Climate Hazards | Risk Levels over Time | | | Mitigation Measures |
|---|---|---|---|---|---|
| | | Short-term | Medium-term | Long-term | |
| Loss of integrity and functionality of bridge components and road surface |  Extreme heat | 🟡 | 🟠 | 🟠 | Actions taken:<br>· Bridge components inspections to detect any defects (e.g. cracks, expansion, compression, blocking)<br>· Review of design specifications to incorporate heat-resistant materials<br>To plan:<br>· Increase inspection frequency |
| Loss of structural integrity of concrete components due to increased use of de-icers and freeze-thaw effects |  Freezing and thawing | 🟠 | 🟠 | 🟡 | Actions taken:<br>· Perform visual and detailed inspections of concrete components<br>· Apply protective coatings such as epoxies and polymers for crack repair<br>· Study alternatives to de-icing salts<br>To plan:<br>· Ensure proper functioning of drainage systems to prevent water from accumulating on roadway, thus reducing the risk of damage due to the freeze-thaw cycle |
| Overloading of storm drainage on bridges, approaches and tunnel due to heavy rainfall |  Heavy rain<br>Mix of winter weather | 🟠 | 🔴 | 🔴 | Actions taken:<br>· Install bioretention ponds under the Jacques Cartier Bridge to recover rainwater<br>· Develop green spaces as part of major projects<br>To plan:<br>· Increase inspection frequency during and after periods of heavy rainfall<br>· Increase drainage systems cleaning frequency to ensure proper functioning |

Legend – Risk level: 🟡 Medium 🟠 High 🔴 Critical

### Transition Risks and Climate-Related Opportunities

The financial risks associated with the transition to a low-carbon economy are referred to as transition risks. A full assessment of transition-related risks affecting JCCBI, as well as climate-related opportunities, will be carried out over the next few years. This assessment will aim at better defining how current and future legislation aimed at limiting GHG emissions, as well as technological advances and market fluctuations will affect JCCBI's activities.

## Risk Management

JCCBI's climate-related risks are currently integrated into its corporate risk management and asset risk management. JCCBI also plans to include climate-related risks in construction and rehabilitation projects risk registers, right from kick-off.

### Integrated Risk Management

As part of its integrated corporate risk management, JCCBI has added potential climate-related physical risks to its prioritized risk No 19: "*Level of Knowledge and Resilience of Infrastructures*". JCCBI is continuing to deepen its knowledge of physical risks associated with climate change in order to extend the service life of the assets for which it is responsible. As previously mentioned, a review of the severity of prioritized residual risks is conducted annually and mitigation measures are implemented accordingly.

### Asset Risk Management

As part of its SDS 2023 to 2027, JCCBI committed to integrating climate change risks into projects factsheets in the planning stage, when such risks are identified. These risks will also be taken into account when updating the asset maintenance programs for each infrastructure managed by the Corporation. Climate change risks are therefore taken into consideration in short-, medium- and long-term project planning.

### Risk Register by Project

JCCBI keeps a risk register for every construction and rehabilitation project. This register helps centralize the information identifying a project's risks, and monitor and control the related response plans. JCCBI plans to integrate climate-related risks into this process. For example, periods of heavy rain can bring a worksite to a standstill and push back the schedule. This type of risk needs to be considered as part of a comprehensive approach to climate change risks.

## Metrics and Targets

At a time when fighting climate change is of paramount importance, JCCBI is working on two complementary approaches: adaptation and mitigation. Previous sections of this report focused on adaptation. This section focuses on metrics and targets aimed at limiting GHG emissions generated by the Corporation's activities.

### Metrics

GHG emissions were quantified in accordance with the ISO 14064 standard. The vast majority of emissions are from indirect rehabilitation and construction activities, which require the use of materials that are major GHG emitters, such as asphalt, concrete and steel.

**Table 2 – Greenhouse Gas Emissions for 2024–2025**

| Scopes | Categories according to ISO 14064 | Description of the emission categories | GHG emissions (t CO2 eq.) |
|---|---|---|---|
| 1 | 1 | Use of JCCBI's fleet of vehicles and heating | 187 |
| 2 | 2 | Electricity consumption | 7 |
| 3 | 3 | Staff travel, snow removal, business trips | 392 |
| | 4 | Rehabilitation and construction projects carried out by third parties (including contractors retained by JCCBI) | 100 622 |

### Targets

JCCBI is aligned with FSDS targets to reduce Category 1 and 2 GHG emissions from 40% to 45% in relation to 2005 levels by 2030, and to achieve carbon neutrality by 2050. JCCBI is working on a plan to decarbonize its activities, which will gradually be implemented over the next several years.

Reduction measures have already been implemented in recent years and are described in JCCBI's 2023 to 2027 SDS published on its website. Table 3 provides a summary thereof.

**Table 3 – Examples of Reduction Measures Implemented or in Place**

| Scopes | Categories according to ISO 14064 | Examples of Measures Implemented or in Place |
|---|---|---|
| 1 | 1 | · Extend and optimize the service life of the light-duty vehicle fleet<br>· Electrify the vehicle fleet when deemed appropriate |
| 2 | 3 | · Study on alternatives to conventional de-icing salts, particularly potassium formate |
| 3 | 4 | · Recovery of 96% of materials from the deconstruction of the original Champlain Bridge<br>· Offset of more than 12,600 t $CO_2$ eq. following the deconstruction of the original Champlain Bridge |
| | Others | · Maintain bike and walking paths on assets managed by JCCBI (Jacques Cartier Bridge, Estacade, Melocheville Tunnel)<br>· Planning of a network of trails and bike paths as part of the Heritage Champlain project and the reconfiguration of the Bonaventure Expressway to promote sustainable mobility |

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