

NATIONAL CAPITAL COMMISSION
COMMISSION DE LA CAPITALE NATIONALE

		No.	2018-P137
		To	Board of Directors
For	DECISION/INFORMATION	Date	2018-06-21
Subject/Title			
Draft Sustainable Development Strategy, 2018–2023, National Capital Commission			
Summary			
<ul style="list-style-type: none"> • The NCC's Environmental Strategy 2009-2017 expired on March 31, 2018. Seventy-four percent of the objectives were met. • Consultations with staff, general public and regional stakeholders were held to gather ideas for the actions and targets of the Sustainable Development Strategy. • The strategy adopts the Federal Sustainable Development Strategy framework and aims for compliance with relevant federal goals, targets and milestones. • It includes six principles and thirty-four actions grouped under ten of the Federal Sustainable Development Strategy goals relevant to the NCC. • The strategy will be launched in September 2018. • The NCC is seeking approval from the Board of Directors of the Final Environmental Strategy Report 2009-2017 (Appendix 1). • Also, the NCC is seeking input on the draft Sustainable Development Strategy (Appendix 2). 			
Risk Summary			
<ul style="list-style-type: none"> • NCC falls short in achieving the actions that have been set and which contribute to the Federal Sustainable Development Strategy 			
Recommendation			
<ul style="list-style-type: none"> • That the Final Environmental Strategy Report 2009-2017 be approved. 			

Submitted by:

Daniel Champagne, Executive Director, Capital Planning Branch

Signature

1. Strategic Priorities

- The Plan for Canada's Capital 2017-2067 has three strategic directions all related to sustainability: the Meaningful Capital; a Picturesque and Natural Capital; and a Thriving and Connected Capital.
- For the 2017–2018 to 2021–2022 planning period, three strategic directions will guide the NCC as it delivers its mandate to continue to build a dynamic, sustainable, inspiring and thriving Capital Region.
 - Plan, develop and improve the NCC's assets such that they inspire Canadians with a lively, distinctive and sustainable National Capital Region.
 - Conserve and celebrate natural assets, cultural landscapes and built heritage of national interest under the NCC's stewardship.
 - Strengthen relations with the community, all orders of government, and Indigenous peoples to foster a cohesive and thriving National Capital Region.
- The Federal Sustainable Development Strategy is the Government of Canada's primary vehicle for sustainable development planning and reporting. It sets out sustainable development priorities, establishes goals and targets, and identifies actions to achieve them.

2. Authority

Section 3.2.1 of the NCC By-laws

3. Context

- The NCC's Environmental Strategy 2009-2017 expired on March 31, 2018. Seventy-four percent of the objectives were met.
- Since fall 2016, many internal and external consultations were held to gather ideas on the actions and the targets of the Sustainable Development Strategy. In total, 148 staff and more than 40 people from the general public and regional stakeholders participated in these consultations.
- On June 19, 2017, the federal government introduced Bill C-57 proposing amendments to the Federal Sustainable Development Act. Changes include a shift in focus from planning and reporting to results, broader departmental participation, and strengthened accountability, including annual departmental reporting to parliamentary committees.
- While not bound by the Federal Sustainable Development Act, the NCC contributes to the Federal Sustainable Development Strategy.

4. Options Analysis

- The NCC decided to adjust the strategy framework from an internally driven, voluntary approach to a sustainable development strategy that adopts the Federal Sustainable Development Strategy framework and aims for compliance with relevant federal goals, targets and milestones.

- If the NCC is identified as a designated entity under Bill-C57, it will be required to table its strategy to Parliament in 2021 and to report on annual progress starting in 2022.
- The draft Sustainable Development Strategy includes six principles and thirty-four actions grouped under ten of the Federal Sustainable Development Strategy goals relevant to the NCC.
- The NCC aims to launch its Sustainable Development Strategy in September 2018.

5. Financial Details

- A dedicated budget should be considered since adequate resources can have a significant effect on the ability to achieve certain results.
- Nineteen out of the thirty-four proposed actions may be implemented without additional resources. This list of actions is available in Appendix 3.
- Additional resources are required to implement fifteen actions (Appendix 3). We currently estimate that \$2,250,000 would be required over five years.
- Several actions offer potential for cost savings through reduction of energy consumption and the integration of climate change resiliency into project planning.

6. Opportunities and Expected Results

- Although the NCC is currently a voluntary partner and is not formally bound by the Federal Sustainable Development Act, we adhere to the principles of the Federal Sustainable Development Strategy. This opportunity will allow the NCC to proactively contribute to the goals laid out in the Federal Sustainable Development Strategy.
- The future Sustainable Development Strategy addresses the strategic directions of the Plan for Canada's Capital 2017-2067 and puts into action the strategic directions for the 2018–2019 to 2022–2023 planning period.
- Aligning with the Federal Sustainable Development Strategy ensures that the NCC's environmental objectives and programs remain relevant and timely and provide a visible and transparent reporting mechanism for tracking the NCC's progress toward sustainability goals. It also means that the NCC will be well positioned if it becomes a designated entity under the Federal Sustainable Development Act.

7. Risks and Mitigation Measures

Risk	Likelihood	Impact	Planned Response
NCC falls short in achieving the actions that have been set and which contribute to the Federal Sustainable Development Strategy	Medium	Moderate	<ul style="list-style-type: none"> • Dedicated resources must be identified for the implementation of the future strategy. • Review the NCC's Sustainable Development Strategy on a three-year cycle.

8. Consultations and Communications

- A core team and a director committee were created and consulted to jointly draft the strategy and to provide input at each phase of the strategy renewal process.
- The NCC has reached out to Indigenous communities to seek their input in the development of the Sustainable Development Strategy.
- A workshop was held with the Board of Directors to discuss their vision for a green capital region and seek their input on the proposed actions for this strategy.
- The NCC works and attends regular meetings with the Federal Sustainable Development Office.

9. Next Steps

- | | |
|---|------------------------|
| • Online consultation on the NCC's Sustainable Development Strategy | June 18 – July 8, 2018 |
| • Presentation for approval by the Board of Directors of the Sustainable Development Strategy 2018-2023 | Sept. 2018 |
| • Implementation of the Sustainable Development Strategy and regular reporting on progress | 2018 – 2023 |

10. List of Appendices

Appendix 1 – Final Report, Environmental Strategy 2009-2017

Appendix 2 – Draft Sustainable Development Strategy 2018-2023, NCC

Appendix 3 – Tables of estimated cost for the proposed actions for the Sustainable Development Strategy 2018-2023, NCC

11. Authors of the Submission

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NATIONAL CAPITAL COMMISSION
COMMISSION DE LA CAPITALE NATIONALE

Building a Greener Capital

Final Report
Environmental Strategy
2009–2017



Canada

Between 2009 and 2017...



776.5

hectares of land in Gatineau Park and the Greenbelt were purchased.

2 buildings and major renovations were certified



The waste diversion rate on the Rideau Canal Skateway increased by



65.4%

58%



of NCC lands were designated high-value ecosystems and habitats.

Greenhouse gas emissions were reduced by

15.4%

compared with a 2011–2012 baseline year.

34%



of the vehicle fleet was replaced with more energy-efficient vehicles.

45%

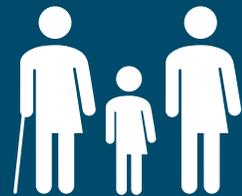


of the NCC's contaminated sites were secured.

5883 tonnes



of demolition waste were diverted from landfill.



A minimum of

175,000

people participated in conservation education programs and activities.

CEO Message

In presenting the National Capital Commission's (NCC) Environment Report for 2009–2017, I am pleased to note that this marks the final annual stock-taking on the NCC's environmental strategy—a strategy that has served the Capital well since its inception in 2009.

The new five-year strategy is currently in development and, when finalized later this year, will align the NCC with the Federal Sustainable Development Strategy and United Nations Sustainable Development Goals. This will also align the NCC's environmental efforts with the new Plan for Canada's Capital, 2017–2067, agenda to build a dynamic, sustainable, inspiring and thriving Capital Region.

As the chief planner and steward of the Capital, the NCC fosters environmental sensitivity and responsibility throughout the Capital's built environment, while protecting and preserving its breathtaking natural legacy. And each year we release an annual report to demonstrate how this commitment has been translated into tangible action that contributes to our collective aspiration to being one of the greenest capitals in the world.

Since 2009, with the environmental strategy as its guide, the NCC has made real progress toward this vision. In most cases, its clear focus, supported by public interest and engagement, has resulted in measureable successes—achieving fully three quarters of the strategy's objectives. For example, the NCC has reduced greenhouse gas emissions by 15.4 percent compared with a 2011–2012 baseline year; 70 green demolition projects have diverted 93.7 percent of their waste from landfill sites; 776 hectares of land have been purchased in Gatineau Park and the Greenbelt; and more than 175,000 people have participated in conservation-related programs and activities. In the cases where we have encountered challenges, we have learned valuable lessons that are even now being applied to the new Sustainable Development Strategy.

I would like to offer my warmest thanks to all the NCC staff who are so dedicated to this important work of building a green and sustainable capital that inspires—and sets an example—for Canadians everywhere, as well as to all the partners, stakeholders and citizens who have shared this goal with us over the years.



Dr. Mark Kristmanson *Chief Executive Officer*



^ Ottawa River

Overview

The 2009–2017 environmental strategy centres around five areas for action that are highly relevant to the NCC’s business areas. The areas for action are reducing waste, protecting biodiversity, preventing pollution, leading in environmental practices and combatting climate change. Each area for action has one priority objective, and a focused set of secondary objectives. The priority objectives are corporate commitments to firm, measurable targets. The secondary objectives support the overall goals in each area for action. The strategy implementation followed four principles.

Transparency: Articulate environmental priorities and objectives, and provide ongoing public reporting to measure progress.

Collaboration: Work with stakeholders and partners on environmental improvements, and encourage a culture of sharing ideas, solutions and best practices.

Leadership by example: Engage staff throughout the organization in green policies, practices and activities, and encourage other parties within the NCC’s sphere of influence to do the same.

Continuous improvement: Learn from experience, and strive for greater positive environmental impact.

This report provides an overview of the corporation’s environmental performance for the duration of the environmental strategy, from April 1, 2009, to March 31, 2018. Since this is the final report on the environmental strategy, a different approach has been taken compared with past years. Instead of summarizing the progress made over the past 12 months, this report presents key accomplishments achieved over the life of the strategy for the 23 objectives. These illustrate the NCC’s commitment to protect and improve the environment in the National Capital Region, and go beyond its legal obligations and responsibilities.

The NCC has achieved 17 out of 23, or 74 percent of the objectives in its environmental strategy. Although six objectives will not be fully accomplished, considerable progress has been made in every field of activity. The results of the implementation of the environmental strategy are summarized in the dashboard on pages 4 to 6.



^ *Sussex Drive*

Strengths and Weaknesses of the Environment Strategy, 2009–2017

A review of this strategy was completed to examine its relevance, design, delivery and results, in order to determine the strengths and weaknesses of the approach. The NCC actively seeks to learn from its experiences, and address the challenges noted below, in order to have an even more positive impact on the environment and society.

Strengths

Most importantly, 74 percent of the strategy’s objectives were achieved, and significant progress was made in key areas of habitat and ecosystem protection, waste reduction and carbon emissions reduction. High levels of transparency and accountability were maintained by reporting on progress annually. The strategy has been able to provide concrete environmental objectives, followed across the organization, and which are not necessarily included in other plans or policies. Environmental stewardship has been integrated into the NCC’s corporate architecture. The strategy has created a sense of responsibility for the environment among staff and a sense of accountability to Canadians.

Weaknesses

Several areas that limited the full achievement of the strategy objectives were identified as follows:

- NCC staff indicated that the strategy should be even more integrated with other corporate planning processes, rather than operating in parallel with higher-level documents, such as the corporate plan and the various master plans.
- Some objectives, such as those related to invasive species, were necessarily established without full knowledge of the context for their implementation and achievability.
- Roles and responsibilities for the actions were not systematically identified, and more consultation with NCC employees and stakeholders during development would have been beneficial.
- Limited resources restricted the full implementation of six of the 23 objectives.
- The NCC found it challenging to apply the strategy objectives to projects undertaken by partners on NCC lands, and would benefit from tools such as design guidelines to guide future developments.
- Because of the strategy’s long time frame, momentum was difficult to maintain.
- Although progress was reported annually, the qualitative nature of the secondary objectives and lack of key progress indicators made measuring progress difficult.

Environmental Strategy Performance Overview

● Objective was met. ● Objective was not met.

OBJECTIVES	HIGHLIGHTS OF ACCOMPLISHMENTS	STATUS
Reducing waste		
Priority objective		
By 2013, the NCC will have achieved and will maintain a 50 percent reduction, in comparison with the 2009–2010 level, in waste sent to landfill sites from activities associated with the Rideau Canal Skateway.	The NCC exceeded the 50 percent reduction target in 2016. The waste diversion rate increased from 7.9 percent in 2010 to 73.3 percent in 2018. When the numbers of skating days are compared, the amount of waste sent to landfill per day of skating dropped from 0.61 metric tonnes in 2010 to 0.08 metric tonnes in 2018, an 87 percent decrease.	●
Secondary objectives		
The NCC will achieve 70 percent waste diversion (through reducing, reusing and recycling) from all NCC business areas by 2017.	In 2009–2010, the NCC undertook a comprehensive assessment of waste at all its corporate offices, with the intent to modernize recycling and waste-handling systems. It then implemented a comprehensive overhaul of its office waste management at its six main office locations in summer 2011. As of 2014, waste diversion was 58 percent at the NCC's main office, and 28 percent at NCC headquarters in Gatineau Park. Although progress was made, additional resources were required to fully implement the objective.	●
The NCC will challenge partners hosting events on NCC lands to achieve a 50 percent waste diversion target.	In 2015, the NCC added new clauses to event partnership agreements, requiring all partners hosting major events on NCC lands to comply with mandatory waste management criteria. For example, partners hosting major events must provide the facilities necessary for the collection of these materials, including adequate signage, for use by the public, artists, food concessions and employees, and they must provide the NCC with weight tickets for the waste, recyclables and compost generated.	●
The NCC will develop green procurement guidelines for implementation in 2010, which will include low waste as an important criterion.	Green procurement guidelines were adopted in 2010–2011. These guidelines allow the NCC to consider the environmental impacts of goods and services which, in addition to price and quality, play an important role in purchasing decisions.	●
The NCC will implement green demolition practices by 2010, which place a strong emphasis on waste diversion and resource conservation.	Green demolition practices were undertaken for 70 demolition projects on NCC lands during the 2009–2017 period. An average diversion rate of 93.7 percent was achieved as a result. Over 5883 tonnes of waste was diverted from landfill. Non-governmental organizations such as Habitat for Humanity collected salvageable items like windows or doors so that they could be put to good use in building reliable, affordable housing. Other materials (e.g. concrete, metal, wood, plastic) were sent to other NCC construction sites to help reduce the need for new materials.	●
Protecting biodiversity		
Priority objective		
The NCC will ensure that all 28 high-value ecosystems and habitats found within the Greenbelt and Gatineau Park and on urban lands in the region are designated as conservation lands by 2012.	Since 2014–2015, all high-value ecosystems and habitats in NCC plans have been designated in accordance with the applicable International Union for Conservation of Nature categories. As a result, 312 km ² or 58 percent of NCC lands are designated as high-value ecosystems and habitats. A total of 776.5 hectares of land in Gatineau Park and the Greenbelt has been purchased since 2009. Eleven biodiversity indicators were used on NCC lands to help monitor the health of all 28 high-value ecosystems and habitats. The NCC completed two studies: <i>Management Recommendations for the Valued Natural Ecosystems and Habitats of the Greenbelt and Urban Lands</i> and <i>Management Recommendations for the Valued Natural Ecosystems and Habitats of Gatineau Park</i> . The recommendations were used to guide NCC efforts to protect, restore and enhance its high-value ecosystems and habitats. The NCC's high-value ecosystems and habitats were added to the Conservation Areas Reporting and Tracking System managed by the Canadian Council on Ecological Areas.	●
Secondary objectives		
The NCC will implement new recovery plans for federally and provincially listed species at risk on NCC lands, within one year of finalization.	The objectives of the recovery program for identified species at risk on NCC lands are taken into consideration during the environmental effects analysis for individual projects, and implemented within land management practices. The NCC has acquired and manages information about species at risk on its lands, which includes maintaining a continually updated database, and mapping the potential and critical habitat of these species. The NCC collaborated with the federal and provincial governments by providing input on more than 25 species at risk management plans and recovery programs.	●
The NCC will protect all critical habitats identified on NCC lands under federal or provincial law for species at risk, within one year of designation.	All critical habitats for the species at risk identified on NCC lands are taken into consideration during the environmental effects analysis for individual projects and are protected within land management practices. Ten projects were completed in the context of the Federal Interdepartmental Recovery Fund Program for the recovery of seven species at risk in Gatineau Park.	●
The NCC will develop a thorough understanding of biodiversity on NCC lands through its Natural Resources Research Program.	The NCC's corporate Natural Resources Research Program was established in 2003 to support projects that increase the understanding of biodiversity under the NCC's stewardship. Its goals are to implement research, inventory and monitoring projects that add to the NCC's knowledge of natural resources in Gatineau Park and the Greenbelt and on NCC urban lands. Over 30 research projects were implemented since 2009 to gather scientific knowledge to support decision making and better management of NCC lands. Approximately 40 scientific permits have been issued annually in Gatineau Park, for a total of approximately 360 permits issued between 2009 and 2017.	●

OBJECTIVES	HIGHLIGHTS OF ACCOMPLISHMENTS	STATUS
<p>The NCC will reduce the amount of NCC urban land infested by invasive plant species by 10 percent by 2017.</p>	<p>In 2013, the NCC completed an extensive study, <i>Aggressive Invasive Alien Species Management Strategy for National Capital Commission Lands</i>. A total of 45 invasive alien species were identified on NCC lands, and it was estimated that aggressive plant species cover 49 percent of urban lands. Maintenance contracts require contractors to devote time to invasive species removal over the life of the contract, and contractors also receive training on the identification and removal of invasive species. Dedicated projects have focused on controlling buckthorn, wild parsnip, garlic mustard, Eurasian milfoil and dog-strangling vine. The NCC collects information about invasive species during environmental effects analyses. During project implementation, proponents are required to remove invasive species as part of their projects, as appropriate. Internal and external guidelines for the management of invasive plant species have also been developed.</p> <p>When the environmental strategy was launched, the extent of invasive species on urban lands was unclear. In addition, the spread of invasive species has increased quickly in recent years, and resources are limited. For these reasons, this objective has been difficult to achieve.</p>	
<p>Preventing pollution</p>		
<p>Priority objective</p>		
<p>All contaminated sites on NCC lands will be secured by 2017.</p>	<p>In 2009–2010, the NCC conducted a systematic review of its properties to determine what would need to be done to secure each contaminated site. Since 2009, 45 percent of the NCC’s contaminated sites have been secured. The following indicates the status of contaminated sites as of March 2018:</p> <ul style="list-style-type: none"> • Secured sites: 112 • Sites requiring further assessment: 205 • Non-secured sites: 132 <p>Since 2009, 90 percent of the buildings in the NCC’s portfolio have been assessed for lead and asbestos, and remediation actions have been taken to remove these substances.</p> <p>The NCC is securing sites based on risk to the public, the environment at the site and organizational requirements. Available financial resources were not sufficient to complete this objective in full.</p>	
<p>Secondary objectives</p>		
<p>The NCC will identify and remove or repair all problem underground storage tanks on NCC property by 2011.</p>	<p>In 2009, all 60 underground tanks on NCC lands subject to the federal fuel storage tank regulations were inspected. All storage tanks on NCC property were deemed compliant as of 2014.</p>	
<p>The NCC will adopt a policy to eliminate the use of pesticides for cosmetic purposes by 2010.</p>	<p>The NCC launched a policy governing pesticide use on its lands in 2012, and continues to uphold it. This policy bans the cosmetic use of pesticides on NCC lands.</p>	
<p>Leading in environmental practices</p>		
<p>Priority objective</p>		
<p>All new building construction on NCC lands, for buildings over 250 square metres, will be certified LEED® (Leadership in Energy and Environmental Design) Gold by 2013 and all major building renovations will meet LEED® certification standards.</p>	<p>The NCC built one new LEED® building—7 Clarence (Gold) and completed one LEED® certified major renovation (the Dome Building restoration project [Silver]). The renovation of the Foot Guard House took LEED® standards into account; however, this building is ineligible for LEED® certification, because it does not have full-time occupants. Although not constructed by the NCC, the Wakefield Mill expansion project is LEED® (Gold) certified and the project at 3500 Carling Avenue is LEED® (Silver) certified.</p> <p>The high cost of LEED® certification has been the main obstacle to achieving this objective.</p>	
<p>Secondary objectives</p>		
<p>The NCC will use green building practices for the construction of all buildings under 250 square metres.</p>	<p>Green building practices are incorporated into NCC projects, and environmental criteria are used to prioritize projects. Significant upgrades to the following buildings have resulted in fuel cost savings, water savings and greenhouse gas reductions:</p> <ul style="list-style-type: none"> • Vincent Massey Park service building: Net-zero energy and carbon neutral building, through the use of low-flow toilets and sinks, rain harvesting technology, 27 solar panels, local materials, and site-specific design. • Moore Farm: Home to the NCC’s first ground-source heating and cooling system. In addition, insulation was added to increase the building’s energy efficiency. • Hog’s Back Park service building: Thirty solar panels were installed to power the service building. • Renaud Shelter in Gatineau Park: Constructed to use passive solar heating, and the high-performance building envelope keeps it warm in winter and cool in summer. In addition, it was built primarily from locally sourced wood. 	
<p>The NCC will integrate environmental education into all NCC activities, where appropriate.</p>	<p>The NCC delivered various environmentally themed activities and programs on its lands to at least 175,000 participants, including school groups, private groups and the general public since 2009. The NCC also held a number of events on the environment, sustainability and natural resource management for NCC staff and the general public at its Urbanism Lab, a creative forum launched in 2014, where leaders, experts and the public can share knowledge and ideas about how to build a great capital. The NCC collaborated with Environment and Climate Change Canada in the creation of the Ottawa-Gatineau Urban BioKit, an observation guide to explore urban biodiversity.</p>	
<p>The NCC will strengthen environmentally sensitive practices in all maintenance contracts.</p>	<p>Environmental management guidelines have been integrated into maintenance contracts to provide contractors with operational information. For example, workers will avoid wilfully disturbing any wildlife at sites, minimize unnecessary idling of vehicles, respect a minimum distance of two metres from any trees when excavating or installing structures, implement an erosion and sediment control plan and an emergency response plan for activities near watercourses or wetlands.</p>	

OBJECTIVES	HIGHLIGHTS OF ACCOMPLISHMENTS	STATUS
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Secondary objectives *(continued)*

The NCC will provide and promote environmentally sustainable transportation alternatives.

The NCC has many forms of infrastructure, events and initiatives to support and promote the use of sustainable transportation. The following are some examples of successful initiatives implemented since 2009.

- About 20 km of multi-use pathways were added to the Capital Pathway network, and several pathway improvements for pedestrians and cyclists were made.
- Bicycle counters were installed at five locations around the National Capital Region to count the number of cyclists who pass by. Since 2013, these counters have recorded 8.9 million bicycle trips.
- A total of 15 Park and Cycle parking lots were created.
- The regional cycling network map, created in collaboration with the City of Ottawa, Ville de Gatineau and regional tourism organizations, has been published since 2011–2012.
- The Capital BIXI bike share program, which was hosted by the NCC from 2011 to 2013, generated a total of 109,635 cycling trips, made by 783 monthly and yearly subscribers and 25,891 daily users, over the duration of the program.
- The EcoMobility Initiative was launched in June 2013 to encourage staff to use sustainable forms of transportation for their commute to work.
- The Fall Rhapsody shuttle service has brought over 30,000 people to Gatineau Park over three years (2015–2017).



The NCC will implement best practices for water quality management in projects and activities taking place on NCC lands, and will encourage its partners and stakeholders to do the same.

- The NCC implemented measures in support of responsible water quality management, particularly through shoreline and wetland restoration projects. For example, the wetlands upstream of Black Rapids Creek were restored, which has increased wetland areas from 3,444 to 7,000 square metres. Also, Smith Creek was daylighted and restored at Philippe Lake campground. A part of the shoreline was restored at Meech Lake.
- Studies on flooding, erosion and stormwater management have been completed, including studies at Green's Creek watershed and at Stillwater Creek and Watts Creek in the Greenbelt
- The NCC has collaborated with the Greenbelt farming community and various conservation organizations to help improve water and soil quality.



In carrying out its planning mandate, the NCC will place priority on sustainable development approaches.

The NCC completed over 534 environmental assessments under the *Canadian Environmental Assessment Act*. Five strategic environmental assessments were completed, and have informed the development of NCC land use plans.



Combatting climate change

Priority objective

The NCC will reduce its overall carbon footprint by 30 percent by 2017, based on a 2011–2012 baseline.

The NCC has reduced its scope 1 and 2 greenhouse gas emissions by 15.4 percent (329 tonnes of CO₂ equivalent) compared with a 2011–2012 baseline year.

- Many energy efficiency measures were taken at Rideau Hall:
 - Installation of a ground-source heating and cooling system.
 - Commercial energy audits were completed for 16 buildings at Rideau Hall campus.
 - Mechanical systems were recommissioned at the Stable Building and Main Building at Rideau Hall campus.
 - High-flow toilet fixtures were replaced with low-flow toilet fixtures, and old light bulbs were updated to LED bulbs at official residences.
 - Several old air conditioning systems that utilized potable municipal water for cooling were replaced with new energy efficient models that do not consume water.
- A total of 34 percent of the vehicle fleet (15 vehicles) was replaced with new, more energy-efficient vehicles.
- From 2009–2013, five out of six of the NCC's signature events and programs achieved carbon neutrality, offsetting a reported 1,804 tonnes of CO₂ equivalent.
- Although residential buildings are not currently included in the greenhouse gas inventory, 24 energy efficiency audits have been conducted on the NCC's residential properties since 2015. The subsequent building improvements have resulted in reductions in greenhouse gas emissions and energy cost savings for tenants.



Although significant improvements were made in terms of energy efficiency in several buildings and the NCC's vehicle fleet, limitations on the resources available and the NCC's operational control over its greenhouse gas emissions have meant that the objective was not fully met.

Secondary objectives

The NCC will seek renewable sources of energy. By 2013, 25 percent of all NCC electricity purchases will be from renewable sources.

The NCC did not need to alter its energy purchases, as 36 percent of the energy produced in Ontario and 99 percent of the energy produced in Quebec comes from renewable sources.



The NCC will continue to broaden its knowledge of the effects of climate change on its operations.

The NCC created partnerships with the University of Ottawa and Université Laval to conduct short- and long-term studies on the impacts of changing climate on several populations of spring-flowering perennials, the impact of the 2012 drought on tree vegetation in Gatineau Park, and the dynamics and functions of Quebec's main forest ecosystems. In 2015, the NCC commissioned a study, *Natural Capital: The economic value of National Capital Commission green spaces*, in partnership with the Université du Québec en Outaouais and David Suzuki Foundation. The study estimated the total economic value of NCC green spaces at \$5 billion over 20 years. This study helps the NCC understand how this value could potentially be impacted by climate change.



A study of the impacts of climate change on all NCC operations, assets and programs was deferred to 2018–2019.

A person is sitting on a large, grey rock in the foreground, looking out over a vast, dense green forest. In the distance, a city skyline is visible under a twilight sky. The overall scene is peaceful and scenic.

Future Directions

In the fall of 2016, the NCC began the process of renewing its environmental strategy. Consultations were held with NCC staff, stakeholders and the general public to review the current strategy and obtain ideas for the new strategy.

The upcoming NCC Sustainable Development Strategy adopts the framework of the Federal Sustainable Development Strategy (FSDS), the Government of Canada's primary vehicle for sustainable development planning and reporting. Aligning with the FSDS will ensure that the NCC's environmental objectives and programs remain relevant and timely, and will provide a visible and transparent reporting mechanism for tracking progress toward sustainability goals. The NCC's future strategy will ensure the integration of environmental and social perspectives into daily decision-making, and reflect its commitment to working with partners, stakeholders and the public to continue building together one of the world's greenest capitals.

^ Gatineau Park

Get Involved

Everyone in the National Capital Region has a role to play in building a greener and more sustainable capital. Whether you're involved in the local business community, active in your neighbourhood or interested in greening your own home, your efforts are essential to our shared success. If you're not already involved, we hope that you will join us.

For more information, please visit www.ncc-ccn.gc.ca/our-plans/environmental-strategy. We welcome any and all feedback as to how the NCC's sustainability efforts might be strengthened or improved upon. For more information, to learn more or to get involved in this work, please contact us at info@ncc-ccn.ca.

National Capital Commission

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Final Report: Environmental Strategy, 2009–2017



NATIONAL CAPITAL COMMISSION
COMMISSION DE LA CAPITALE NATIONALE

Sustainable Development Strategy

2018–2023

Canada

We believe that the natural and cultural heritage of the Capital Region is a precious legacy that should be protected for future generations. We protect this legacy by taking action on climate change, building resilient infrastructure, protecting biodiversity and water quality, promoting sustainable agriculture and safe communities, and connecting Canadians with nature. We manage the natural and cultural heritage of the Capital Region in ways that consider inequality and continue to build a greener capital.



A person in a red jacket stands on a snowy hill at night, looking out over a city with lights and a starry sky. The person is seen from behind, and the city lights are visible in the distance under a dark, starry sky with a bright star in the upper right.

As the principal planner and steward of federal lands in Canada's Capital Region, the National Capital Commission (NCC) is committed to building a greener capital. We at the NCC have a strong tradition of environmental stewardship, and we want to do more to achieve meaningful and measurable results on environmental sustainability in the Capital Region.

This sustainable development strategy is a corporate priority and our road map to continue building a greener Capital Region. It serves as an overarching element to be included in all our plans, strategies and policies to help shape tangible action and lasting impacts. It aligns with three important federal and international initiatives: the Federal Sustainable Development Strategy, the Greening Government Strategy and the United Nations Sustainable Development Goals.

We envision Canada's Capital as a model of sustainability, where transparency and accountability, leadership by example, public participation, collaboration, and social equity are valued. We aim to protect our natural and cultural heritage, and improve the health and well-being of all residents and visitors in the National Capital Region.

About the NCC

The National Capital Commission (NCC) is a federal Crown corporation with a broad mandate to build a dynamic and inspiring capital that is a source of pride and unity for Canadians and a legacy for future generations. The NCC fulfills this mandate through its roles as long-term planner of federal lands, principal steward of nationally significant public spaces, and creative partner for development and conservation.

Three strategic directions guide the NCC as it delivers its mandate via the Plan for Canada's Capital, 2017–2067:

- Strengthen relations with the community, Indigenous peoples and all orders of government to foster an inclusive and meaningful National Capital Region.
- Conserve and celebrate natural assets, cultural landscapes and built heritage under the NCC's stewardship to ensure a picturesque and natural capital.
- Plan, develop and improve the NCC's assets such that they contribute to a thriving, connected and sustainable capital that inspires Canadians.

As the principal steward of federal lands in Canada's Capital Region, the NCC is committed to building a greener capital to ensure the long-term sustainability of the Capital Region, and is uniquely placed to play a leading role in this endeavour.

INDIGENOUS PEOPLES AND THE CAPITAL

The NCC acknowledges that the Capital Region, in which it carries out its mandate, is situated on ancestral lands of the Algonquin nation. The NCC values Indigenous heritage and knowledge, and commits to continue working collaboratively with local Indigenous communities to build a sustainable Capital Region.



Canada's Federal Sustainability Framework

The Government of Canada aspires to reduce its carbon footprint, foster environmentally responsible economic growth, protect and restore ecosystems, and ensure that Canadians flourish in clean and healthy environments. Its [Federal Sustainable Development Strategy](#), a whole-of-government strategy, outlines the actions to be taken by the Government of Canada to move toward its vision: Canada is one of the greenest countries in the world and our quality of life continues to improve.

This federal strategy commits to key sustainable development principles which include the precautionary principle; ecologically efficient use of natural, social and economic resources; transparency and accountability; public participation; reconciliation; “polluter pays” principle; integration; and intergenerational equity. It focuses on 13 aspirational, long-term goals:

- Effective action on climate change
- Low-carbon government
- Clean growth
- Modern and resilient infrastructure
- Clean energy
- Healthy coasts and oceans
- Pristine lakes and rivers
- Sustainably managed lands and forests
- Healthy wildlife populations
- Clean drinking water
- Sustainable food
- Connecting Canadians with nature
- Safe and healthy communities

While not currently required to report on the Federal Sustainable Development Strategy, the NCC is voluntarily adopting the strategy's framework. Through its mandate, the NCC already contributes to 10 of the 13 long-term goals, and believes that the National Capital Region—the seat of the Government of Canada—has an important role to play in greening Canada's Capital.

THE GREENING GOVERNMENT STRATEGY

Greening government operations is a way of supporting Canada's sustainability goals. The Government of Canada plans to transition to low-carbon and climate-resilient operations, while also reducing environmental impacts beyond carbon. The Treasury Board of Canada Secretariat's Centre for Greening Government leads efforts to ensure that Canada is a global leader in government operations that are low-carbon, resilient and green. The [Greening Government Strategy](#) includes commitments on reductions of greenhouse gas emissions from government operations; green building practices for its real estate portfolio; low-carbon mobility solutions; climate change adaptation measures for federal assets, services and operations; green procurement; and the adoption of clean technologies and green products and services.

“Canada is one of the greenest countries in the world, and our quality of life continues to improve.”

2030 United Nations Agenda for Sustainable Development

In 2015, United Nations member states adopted the [2030 Agenda for Sustainable Development](#), which includes 17 sustainable development goals and 169 targets. They are the result of an extensive consultation process involving millions of people around the world. The Sustainable Development Goals provide the global framework for sustainable development for the next 15 years. They integrate social, economic and environmental dimensions of sustainable development, and include peace, governance and justice elements.

At the federal level, the 2016–2019 Federal Sustainable Development Strategy forms the foundation of the Government of Canada’s response to the global effort to achieve the targets outlined in the 2030 Agenda for Sustainable Development. The Federal Sustainable Development Strategy’s targets, milestones and action plans show how the Government of Canada will implement the environmental dimensions of the Sustainable Development Goals.

The NCC’s Sustainable Development Strategy is its response to both the Federal Sustainable Development Strategy and the United Nations Sustainable Development Goals, with a focus on the environmental components. However, the NCC is committed to seeking ways to implement this strategy that contribute to equitable and healthy communities. Read more about the NCC’s commitment to the social aspects of sustainable development in the section entitled *Principles*.



The NCC's Accomplishments So Far

The NCC has a long tradition of environmentally responsible stewardship of federal lands within Canada's Capital Region. Its first environmental strategy, entitled *Building a Greener Capital*, was built on this tradition, and contained ambitious targets for environmental action in five areas: reducing waste, protecting biodiversity, preventing pollution, leading in environmental practices and combatting climate change. A number of accomplishments were recorded under this strategy between 2009 and 2017. Here are a few highlights.



Reducing waste

An 87 percent reduction in the amount of waste sent to landfill from the Rideau Canal Skateway was recorded since 2010–2011. Green demolition practices were used to divert 93.7 percent of the waste from 70 demolition projects.

Protecting biodiversity

The NCC has taken many steps to better protect biodiversity. All 28 of its identified high-value ecosystems and habitats—or 58 percent the land managed by the NCC—were designated as conservation lands under the International Union for Conservation of Nature (IUCN) protected area categories. In addition, over 775 hectares of lands were purchased in Gatineau Park and the Greenbelt. To ensure the health of these ecosystems, the NCC has monitored 11 biodiversity indicators on its lands, and funded research through its Natural Resources Research Program, issuing over 360 research permits since 2009.

Preventing pollution

The NCC has worked hard to identify and secure its contaminated sites, having secured 45 percent of them. It also adopted a pesticide policy prohibiting the application of pesticides for cosmetic purposes on its land.

Leading in environmental practices

The NCC completed a number of green building projects, including one new LEED® building and one LEED® certified major renovation. It also built a net-zero energy and carbon neutral service building at Vincent Massey Park, a solar-powered service building at Hog's Back Park, and a ground-source heating and cooling system at the Moore Farm. Green and energy-efficient building practices will continue to be a big part of the NCC's efforts to reduce emissions.

Various actions contributed to sustainable mobility. The NCC added 20 km of pathways to the Capital Pathway network, created 15 park-and-cycle parking lots, and produced a regional cycling network map in partnership with the City of Ottawa, Ville de Gatineau, Ottawa Tourism and Tourisme Outaouais. The NCC also implemented a shuttle bus service to Gatineau Park during the Fall Rhapsody program.

Combatting climate change

The NCC has reduced its greenhouse gas emissions by 15.4 percent since 2011. These reductions were the result of several energy-efficiency initiatives at Rideau Hall and the replacement of 34 percent of the NCC fleet with more energy-efficient vehicles.

Between 2009 and 2017...



776.5

hectares of land in Gatineau Park and the Greenbelt were purchased.

2 buildings and major renovations were certified



The waste diversion rate on the Rideau Canal Skateway increased by



65.4%

58%



of NCC lands were designated high-value ecosystems and habitats.

Greenhouse gas emissions were reduced by

15.4%

compared with a 2011–2012 baseline year.

34%



of the vehicle fleet was replaced with more energy-efficient vehicles.

45%

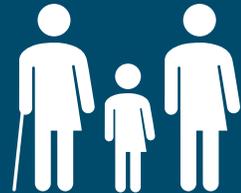


of the NCC's contaminated sites were secured.

5883 tonnes



of demolition waste were diverted from landfill.



A minimum of

175,000

people participated in conservation education programs and activities.

Moving Forward From *Building a Greener Capital*

It is important for the NCC to lead by example and to adopt new and challenging targets. It is also important to build on the foundation of success established with its first environmental strategy. The NCC will do this by ensuring that environmental practices implemented as a result of the first strategy remain embedded, or mainstream, in everyday NCC operations, and by strengthening those objectives that require further work.

Carry-over indicators

In some cases, monitoring the continued success of former environmental strategy objectives will be simple. For example, environmental management practices are now incorporated into all NCC maintenance contracts, and partners hosting events on NCC lands are encouraged to divert the waste generated during the event from landfill sites. In other cases, new environmental practices were so successful that they have become business as usual and are a great source of pride for NCC staff. This is the case with waste management on the Rideau Canal Skateway and the NCC's green demolition practices.

Advancing the green agenda

Some objectives from the first environmental strategy that were successfully implemented require the NCC to take one step further. For example, the NCC will turn its green procurement guidelines into a policy. It will also revisit and strengthen its pesticide policy. In addition, instead of simply seeking sources of renewable energy, the NCC will seek to create renewable energy by assessing the potential for renewable energy projects with respect to its lands and buildings. In the case of waste reduction, the NCC has had success with event and office waste, and will now tackle waste from its public areas and NCC-owned buildings.

Some actions that were included in the first NCC environmental strategy as singular, open-ended objectives will be strengthened with the addition of a number of new, more specific targets. For example, the NCC will put more emphasis on implementing best practices in water quality management by identifying, stabilizing and restoring degraded shorelines and establishing riparian corridors. It will also do more to promote environmental education and sustainable transportation by developing partnerships with local organizations to deliver educational programs on NCC lands, developing partnerships for urban food, improving accessibility to NCC green spaces, purchasing low- or zero-emission vehicles, and installing electric vehicle charging stations on NCC lands.

Aligning with federal priorities

Some objectives where progress has been made will be updated to reflect new federal government targets. Such is the case with the NCC's greenhouse gas emissions reduction target. This strategy sets out a number of actions that will help to achieve the NCC's new emissions target of reducing greenhouse gas emissions to 40 percent below 2005 levels by 2030. Some actions include conducting energy audits, implementing methods and guidelines for greenhouse gas reduction on NCC lands and in NCC buildings, and connecting buildings to a district energy system. These objectives take the place of LEED® building code targets, which proved to be somewhat limiting, given the vast diversity of the NCC's building and renovation projects.

This strategy includes a number of exciting actions that were not addressed by the NCC's first environmental strategy. However, by reflecting on successes and areas for improvement from the first strategy, the NCC can ensure that no previous commitments go unaddressed, and make a seamless transition.

“We have a strong tradition of environmental stewardship, and we want to do more on environmental sustainability in the Capital Region.”

A New Journey Begins: Sustainable Development Strategy, 2018–2023

Creating sustainable communities requires collaboration across political and geographical boundaries, as well as knowledge and expertise from various disciplines. For this reason, the NCC brought together conservation groups, cycling advocates, energy conservation experts, urban planners and ecology organizations, as well as its partners at the City of Ottawa, Ville de Gatineau and other levels of government to gather ideas to ensure that this strategy addresses important challenges and opportunities. The NCC also consulted extensively with its staff to identify actions for this new journey, as well as to address the challenges it will face. Overall, 32 percent of NCC staff (148 participants), 30 regional stakeholders and x members of the general public co-drafted the NCC's Sustainable Development Strategy.

The NCC's vision

The NCC Sustainable Development Strategy provides a focused and innovative agenda for environmental leadership in Canada's Capital Region that ensures the integration of environmental and social perspectives into daily decision making. It reflects the NCC's commitment to working with its partners, stakeholders and the public to continue building together a greener and more sustainable Capital Region.

The strategy also addresses the social equity aspects of sustainable development: it considers how each action can be implemented to ensure that the resulting benefits are more equitably distributed. Many of the actions included in this strategy have the potential to positively influence several determinants of human health and well-being. Health outcomes are often influenced by the interaction between individuals and their social and physical environment. Examples of some physical and social determinants of human health include the natural environment, the built environment, exposure to toxic substances and other physical hazards, physical barriers, aesthetic elements, transportation options, and access to healthful food.

Not only does this strategy aim to protect our natural and cultural heritage, it will also contribute to improving the health and well-being of all residents and visitors in the National Capital Region.

The NCC's principles

This strategy is founded on six principles. They guide all of the NCC's actions and define how the strategy is implemented. These principles are intended to send a clear message about the way that the NCC wants to do business. The NCC pledges to report annually on the commitments identified under each principle and outcome.





The NCC's actions

Thirty-four actions have been identified to be completed by 2023. They call for the NCC to innovate and to improve the way it does business. They are presented under the 10 Federal Sustainable Development Strategy goals relevant to the NCC.

“Through this focused and innovative agenda for environmental leadership, we commit to working with our partners, stakeholders and the public to continue building a more sustainable Capital Region together.”

1 Effective action on climate change



A low-carbon economy contributes to limiting global average temperature rise to well below two degrees Celsius, and supports efforts to limit the increase to 1.5 degrees Celsius.

WHY IS THIS IMPORTANT?

Climate change has been called one of the greatest threats to human health, the economy and the environment. Effective action on climate change means transitioning to a low-carbon economy and reducing our greenhouse gas emissions, while increasing our prosperity. Adaptation—also key in addressing climate change—is about making smart, informed, forward-looking decisions to improve resilience in the face of change. The Government of Canada has committed to a very aggressive target to support global climate change efforts and aims, by 2030, to reduce Canada’s total greenhouse gas emissions by 30 percent, relative to 2005 emission levels.

NCC ROLE

As the Capital Region’s coordinator of long-term planning for federal lands, the NCC can influence mobility in the region and encourage sustainable behaviour. The NCC has a role in urban redevelopment and intensification within the inner urban area.

The NCC will work with its partners to better understand impact, vulnerability and risk from a changing climate to increase the

region’s resiliency. By working together, the NCC and its partners can minimize damages and lower costs over the long term for individuals, businesses, organizations and governments in the National Capital Region. Also, this will allow for the protection of assets and infrastructure that are or could be affected by climate change impacts such as flooding, more frequent and severe wildfires and pest outbreaks, and extreme weather events such as storms and heat waves.

THE NCC’S CONTRIBUTION TO THE GOALS OF THE UNITED NATIONS 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT

By implementing the actions outlined below, the NCC supports the following Sustainable Development Goals:



2018–2023 Actions to support effective action on climate change

ACTION	INDICATOR	TARGET	DEADLINE
1.1 Promote sustainable transportation and mobility in the National Capital Region.	Renewal of the Capital Pathway Strategic Plan completed	-	2019
	Renewal of the Parkways Policy completed	-	2020
	Renewal of the regional sustainable transportation and mobility strategy completed	-	2023
1.2 Promote the development of surplus NCC brownfield sites and sites adjacent to transit nodes, consistent with NCC plans.	Hectares of sites under contract for remediation and development	23	2023
1.3 Evaluate the risk of climate change impacts on NCC assets, programs and services, and develop a climate change adaptation and resiliency plan.	Completion of a research study for the Rideau Canal Skateway	-	2019
	Completion of a research study for NCC assets, programs and services	-	2020
	Completion of the climate change adaptation and resiliency plan	-	2022
1.4 Install electric vehicle charging stations at NCC parking lots.	Number of electric vehicle charging stations on NCC properties	10	2021

2 Low-carbon government



The Government of Canada leads by example by making its operations low-carbon.

WHY IS THIS IMPORTANT?

The Government of Canada is committed to leading efforts to combat climate change, while continuing to contribute to the broader economy. To do its part, the government has set its medium-term target for reducing greenhouse gas emissions from federal government buildings and fleets at 40 percent below 2005 levels by 2030, with an aspiration to achieve it by 2025. Federal investments in cleaner energy and in energy efficiency have already reduced greenhouse gas emissions from federal operations by 28 percent from 2005 levels. The government already announced a new target to reduce greenhouse gas emissions by 80 percent by 2050, relative to 2005 levels.

NCC ROLE

As Canada addresses the challenge of climate change, the NCC will ensure that its future investments include greenhouse gas emissions reductions, which will lead to cost savings. The NCC has a large real property portfolio, including 1,367 buildings such as houses, office buildings, official residences, visitor centres, warehouses, barns, schools and outbuildings that use a significant amount of energy and resources. Many of these buildings are heritage assets which the NCC strives to conserve and protect. Higher standards of retrofit, rehabilitation and construction, energy-efficiency management, and the inclusion of additional sources of renewable energy will help conserve energy and reduce the carbon footprint of the NCC's assets. For the NCC, the conservation of heritage buildings is essential to sustainability, as it fulfills the interrelated economic, cultural, social and environmental principles of sustainable development.

In the 2016–2017 fiscal year, the NCC generated 1,864 tonnes of carbon dioxide (CO₂) equivalent, and has reduced its scope 1 and 2 greenhouse gas emissions by 15.4 percent compared with a 2011–2012 baseline year.

THE NCC'S CONTRIBUTION TO THE GOALS OF THE UNITED NATIONS 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT

By implementing the actions outlined on page 15, the NCC supports the following Sustainable Development Goals:



2018–2023 Actions to support a low-carbon government

ACTION	INDICATOR	TARGET	DEADLINE
2.1 Undertake energy audits of residential, commercial and official residences buildings.	Percentage of NCC-owned energy-consuming buildings audited	75%	2021
2.2 Integrate a greenhouse gas emissions analysis into renovation and construction projects considering best practices guidelines for heritage buildings and sites. ¹	Percentage of projects integrating greenhouse gas emissions analysis	75%	2021
	Percentage reduction in tonnes of CO ₂ equivalent from scope 1 and 2 emissions, compared with 2005 baseline	40%	2030
2.3 Track energy consumption and greenhouse gas emissions of NCC buildings and lands, including new leased facilities and renewed leases.	Percentage of NCC-owned energy-consuming buildings tracked in ENERGY STAR Portfolio Manager	75%	2019
	Percentage reduction in tonnes of CO ₂ equivalent from scope 1 and 2 emissions compared with 2005 baseline	40%	2030
2.4 Adopt minimum energy- and water-efficiency standards for renovations and construction on NCC land, including for heritage buildings.	Adoption of minimum energy- and water-efficiency standards	-	2021
	Percentage reduction in tonnes of CO ₂ equivalent from scope 1 and 2 emissions, compared with 2005 baseline	40%	2030
2.5 Purchase zero-emission or hybrid vehicles for the fleet.	Percentage of new light-duty fleet vehicle purchases that are zero-emission or hybrid vehicles	75%	2023
	Percentage reduction in tonnes of CO ₂ equivalent from scope 1 and 2 emissions compared with 2005 baseline	40%	2030
2.6 Launch a green procurement policy for services and goods.	Adoption of green procurement policy, which includes life cycle analysis	-	2020
2.7 Invest in measures to support low-carbon forms of transportation to reduce emissions from employee commuting and business travel.	Tracking of emissions from business travel by NCC staff and executives	-	2020
	Percentage increase of staff commuting trips that are taken using low-carbon forms of transportation	10% compared with 2012 baseline	2023
	Percentage increase of local staff business trips that are taken using low-carbon forms of transportation	10% compared with 2012 baseline	2023
2.8 Increase the waste diversion rate in public areas and NCC operations.	Percentage of diverted waste from building demolition on NCC lands	90%	2018
	Percentage of diverted waste from the activities associated with the Rideau Canal Skateway	80%	2018
	Percentage of diverted waste from major events on NCC lands	50%	2019
	Percentage of diverted waste along the Rideau Canal corridor and on NCC lands in Quebec	60%	2021

1. [Standards and Guidelines for the Conservation of Historic Places in Canada](#) and [Building Resilience: Practical Guidelines for the Sustainable Rehabilitation of Buildings in Canada](#)

3 Modern and resilient infrastructure



Modern, sustainable and resilient infrastructure supports clean economic growth and social inclusion.

WHY IS THIS IMPORTANT?

As the impacts of climate change continue to manifest themselves, climate-resilient infrastructure that protects Canadians will become increasingly important to sustain economic, environmental and social well-being, as well as to support the transition to a low-carbon economy. While all infrastructure funding will play a role in supporting sustainable development, green infrastructure funding will be a priority, especially in projects such as water and wastewater systems, clean energy and climate-resilient infrastructure like flood mitigation systems. Thus, by the end of 2025–2026, the Government of Canada will have invested \$20 billion in green infrastructure initiatives that reduce greenhouse gas emissions and improve climate-resilience and environmental quality.

NCC ROLE

The NCC is the caretaker of many of the region’s unique natural and cultural landscapes and built assets. Climate change and other environmental issues represent an important challenge in maintaining these assets. The NCC can play a vital role in enhancing the resilience of its assets through its long-term planning and stewardship functions with respect to federal lands, as well as through the federal land use, design and transaction approval process.

THE NCC’S CONTRIBUTION TO THE GOALS OF THE UNITED NATIONS 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT

By implementing the actions outlined below, the NCC supports the following Sustainable Development Goals:



2018–2023 Actions to support modern and resilient infrastructure

ACTION	INDICATOR	TARGET	DEADLINE
3.1 Adopt stormwater management guidelines to reduce impacts on water quality and quantity.	Adoption of stormwater management guidelines	-	2019
	Percentage of new projects that apply stormwater management guidelines	100%	2023
3.2 Assess the flood risk for NCC operations and assets located in the 100-year and 350-year flood plains.	Completion of flood risk assessment	-	2020



4 Clean energy



All Canadians have access to affordable, reliable and sustainable energy.

WHY IS THIS IMPORTANT?

The type of energy produced and the amount of energy consumed have significant impacts on local air quality and global concentrations of carbon dioxide and other greenhouse gases that contribute to climate change. Fossil fuels are damaging to public health and the natural environment, and all levels of government recognize the importance of energy conservation and its link to public health and environmental well-being. Canada is committed to achieving a low-carbon economy. Clean electricity systems and clean technology are keys to achieve the Federal Sustainable Development Strategy’s long-term goal of providing all Canadians with a source of affordable, reliable and sustainable energy. In addition to reducing Canada’s greenhouse gas emissions, a cleaner energy system will provide benefits such as increased climate-resilience and decreased impacts on land and wildlife species.

NCC ROLE

To achieve this goal, there is a need to accelerate the development and adoption of renewable energy and other clean energy technologies, while reducing the overall demand for energy by using it more efficiently. The NCC’s carbon footprint derives primarily from the use of electricity and natural gas by the various building and land portfolios. Thus, there is an opportunity to lower its carbon footprint through the consumption of energy from renewable sources, as well as by installing clean and renewable energy systems on NCC lands.

THE NCC’S CONTRIBUTION TO THE GOALS OF THE UNITED NATIONS 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT

By implementing the actions outlined below, the NCC supports the following Sustainable Development Goals:



2018–2023 Actions to support clean energy

ACTION	INDICATOR	TARGET	DEADLINE
4.1 Assess the renewable energy potential of NCC land and buildings to increase the proportion of off-grid renewable energy systems.	Completion of the assessment of renewable energy potential	-	2020
4.2 Facilitate the connection of federal and NCC-owned buildings to the Public Services and Procurement Canada (PSPC) district energy system.	Number of planned federal and NCC-owned building connections to the PSPC district energy system	Increased number of connected buildings	2023

5 Pristine lakes and rivers



Clean and healthy lakes and rivers support economic prosperity and the well-being of Canadians.

WHY IS THIS IMPORTANT?

Lakes and rivers across Canada sustain a rich variety of plants and animals, supply drinking water to millions of Canadians, provide opportunities for swimming, boating and recreational fishing, and support economic activities such as tourism, commercial fisheries, agriculture and shipping. Many lakes and rivers have been impacted by water contamination and the introduction and spread of invasive alien species. The Federal Sustainable Development Strategy defines two major axes of intervention for its medium-term targets: reduce nutrient pollution to lakes and rivers, and restore lake and river ecosystems.

NCC ROLE

This goal of the Federal Sustainable Development Strategy is of particular importance for the NCC, since the numerous shorelines, lakes and waterways—such as the Ottawa, Gatineau and Rideau rivers—represent some of the Capital Region’s most significant natural features. The NCC is also responsible for the quality of water for swimming at various beaches. The NCC has a dual responsibility toward this goal, since it is responsible for many parks, farmlands and natural environments which, if not carefully managed, can contribute to water pollution and the degradation of aquatic ecosystems.

THE NCC’S CONTRIBUTION TO THE GOALS OF THE UNITED NATIONS 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT

By implementing the actions outlined below, the NCC supports the following Sustainable Development Goals:



2018–2023 Actions to support pristine lakes and rivers

ACTION	INDICATOR	TARGET	DEADLINE
5.1 Prioritize and restore degraded shorelines along watercourses and lakes on NCC lands to improve ecosystem function.	Completion of an assessment of threatened archaeological legacy on NCC shorelines	-	2021
	Identification and prioritization of degraded shorelines	-	2019
	Percentage of high-priority shorelines stabilized and restored	25%	2023
5.2 Continue to establish riparian corridor zones within leased properties.	Percentage of new leases with riparian protection measures	100%	2023

Sustainably managed lands and forests



Lands and forests support biodiversity and provide a variety of ecosystem services for generations to come.

WHY IS THIS IMPORTANT?

Canada's natural spaces provide habitat for wildlife and ecosystem services that are essential to our well-being, such as filtering our air and water and storing carbon dioxide. Forests are fundamental to the cultural, recreational and spiritual values of Indigenous peoples and Canadians. Two of the Federal Sustainable Development Strategy's medium-term targets are relevant to the NCC, even if they are not directly applicable. The first one is to ensure that, by 2020, at least 17 percent of terrestrial areas and inland water are conserved through networks of protected areas and other effective area-based conservation measures. The second one is to maintain or improve the condition of 90 percent of ecological integrity indicators in national parks by 2019.

NCC ROLE

Lands and forests are subject to great pressures from human activity. The NCC manages and is the steward of over 10 percent of the lands in Canada's Capital Region, which totals over 600 km². This makes the NCC the region's largest land manager, thus its role to sustainably manage its lands and forests.

The NCC is responsible for the management of a vast green space network which includes Gatineau Park (361 km²), the Greenbelt

(200 km²), urban parks and green spaces along the parkways. This network, while protecting sensitive ecological elements, cultural landscapes, and archaeological and built heritage, also provides direct monetary benefits such as agricultural products. It also provides benefits not measured according to traditional market metrics such as air quality control, water filtration, climate regulation, carbon storage, wildlife habitat and erosion control.

In addition, the NCC contributes to the sustainability of Canada's lands and forests under its jurisdiction through a number of initiatives that seek to enhance scientific knowledge related to natural spaces, manage the spread of invasive species and protect species at risk.

THE NCC'S CONTRIBUTION TO THE GOALS OF THE UNITED NATIONS 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT

By implementing the actions outlined below, the NCC supports the following Sustainable Development Goals:



2018–2023 Actions to support sustainably managed lands and forests

ACTION	INDICATOR	TARGET	DEADLINE
6.1 Adopt and implement a forest strategy that considers natural and cultural heritage values, and focuses on urban tree protection.	Adoption of a forest strategy	-	2019
	Number of trees planted	100,000	2020
6.2 Control the spread of invasive plant species, in collaboration with regional stakeholders.	Adoption of a coordinated approach	-	2020
6.3 Promote the connectivity of ecosystems and natural habitats in the National Capital Region.	Identification of potential corridors on NCC lands and on lands near and adjacent to NCC lands	-	2020
	Number of hectares of protected ecological corridors	Increased number of square km	2023
6.4 Renew the Corporate Natural Resources Action Plan, which includes the improvement of biodiversity health on NCC lands.	Renewal of the Corporate Natural Resources Action Plan completed	-	2018
	Number of projects completed under the Corporate Natural Resources Action Plan	15	2022

7 Healthy wildlife populations



All species have healthy and viable populations.

WHY IS THIS IMPORTANT?

Healthy plant and animal populations and habitats are important parts of biodiversity. They make up ecosystems that benefit Canadians through valuable services such as climate regulation, providing food and medicines, and pollinating crops. However, plant and animal species and their habitats are threatened by human activities, urban development, invasive alien species, pollution and climate change. The Federal Sustainable Development Strategy's medium-term target is that, by 2020, species that are secure remain secure, and populations of species at risk listed under federal law exhibit trends that are consistent with recovery strategies and management plans.

NCC ROLE

As the manager of more than 10 percent of the lands in the Capital Region, with several high-value ecosystems and natural habitats, the NCC is in a unique position to contribute to Canada's protection and conservation of wildlife populations. A total of 28 high-value

ecosystems and natural habitats have been identified on NCC lands. At present, the NCC estimates that its lands shelter approximately 200 species at risk. In addition, there are some concerns over other species which may not be listed as being at risk provincially or federally, but for which human activities on NCC lands pose a potential threat. Bird collisions with buildings and wildlife mortality on roadways are two examples relevant to the NCC.

THE NCC'S CONTRIBUTION TO THE GOALS OF THE UNITED NATIONS 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT

By implementing the actions outlined below, the NCC supports the following Sustainable Development Goal:



2018–2023 Actions to support healthy wildlife populations

ACTION	INDICATOR	TARGET	DEADLINE
7.1 Adopt bird-friendly standards for building design and landscaping for federal buildings and lands, to reduce negative impacts on birds.	Adoption of bird-friendly design standards	-	2019
	Percentage of new projects that apply bird-friendly standards	100%	2023
7.2 Acquire and analyze ecological land classification data to identify and protect habitat of potential species at risk.	Completion of data acquisition and analysis for designated natural areas	-	2021
	Completion of data acquisition and analysis for other natural lands	-	2023
7.3 Create a pollinator habitat landscape program.	Adoption of pollinator habitat guidelines	-	2020
	Hectares of new pollinator habitat	Increased number of hectares	2022
7.4 Develop road ecology thresholds and guidelines to minimize wildlife mortality on roadways.	Completion of a research project to inform decision making regarding the impact of roads on wildlife	-	2021
	Percentage of new road projects that implement best practices to minimize the impact of roads on wildlife	75%	2023

8 Sustainable food



Innovation and ingenuity contribute to a world-leading agricultural sector and food economy for the benefit of all Canadians.

WHY IS THIS IMPORTANT?

Canada’s food system provides safe and healthy food for Canadians, and contributes to our economy. Conserving our natural environment and protecting freshwater and soil quality will help ensure that our food system continues to provide access to safe and healthy food in the longer term. One of the medium-term targets of the Federal Sustainable Development Strategy is that, by 2030, agricultural working landscapes provide a stable or improved level of biodiversity and efficient management toward water and soil quality for food production.

NCC ROLE

The NCC supports sustainable food production on its lands, and contributes to a healthy regional food system while supporting the local economy. In accordance with the NCC’s Sustainable Agriculture and Food Strategy, the NCC manages approximately 70 food-producing farms (market gardens, dairies, and crop and livestock farms), located primarily in the Greenbelt, but also on urban lands. These farms are living symbols of the natural and cultural landscapes that provided the foundation for much of Canada’s

inhabited areas and provide an opportunity to ensure that residents in the Capital Region have access to locally sourced, sustainable and healthy food, and that biodiversity is protected on farmlands.

The NCC also has a role to play in encouraging decreased energy and chemical inputs and waste outputs, while positively contributing to natural system processes and working toward a “work within nature” principle to provide local food with strong community involvement.

THE NCC’S CONTRIBUTION TO THE GOALS OF THE UNITED NATIONS 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT

By implementing the actions outlined below, the NCC supports the following Sustainable Development Goals:



2018–2023 Actions to support sustainable food

ACTION	INDICATOR	TARGET	DEADLINE
8.1 Create a campaign to promote the consumption of local food produced on NCC lands.	Launch of a locally produced food campaign	-	2020
8.2 Develop a food strategy for urban lands to complement the Sustainable Agriculture and Food Strategy.	Completion of a food strategy	-	2022
	Number of partnerships for implementing the urban food strategy	5	2022
8.3 Diversify farmlands covered by monoculture farming operations, and increase food production on existing Greenbelt farmlands.	Completion of an assessment of the food produced on NCC lands (type, quality and quantity, currently and potentially)	-	2020
	Number of acres of existing Greenbelt farmlands converted for food production	500	2021

9 Connecting Canadians with nature



Canadians are informed about the value of nature, experiencing nature first-hand, and actively engaged in its stewardship.

WHY IS THIS IMPORTANT?

Connecting with nature has recognized benefits for humans. It can improve physical and mental health, support children’s development and provide opportunities for spiritual growth. In addition, nature-based tourism and activities also provide regional economic benefits. The Federal Sustainable Development Strategy’s medium-term target is to maintain or increase by 2020 the number of Canadians who get out into nature—for example, by visiting parks and green spaces—and increase participation in biodiversity conservation activities relative to a 2010 baseline.

NCC ROLE

The NCC’s green space network, including Gatineau Park and the Greenbelt, offers unique places where nature and people come together. The Capital Pathway network, representing over 200 km

of multi-use pathways, connects people to these green spaces and provides opportunities for them to spend time outdoors. Preserving this cultural experience is important for the NCC, which can support this goal by expanding opportunities for people to connect to nature and getting involved in conservation initiatives.

THE NCC’S CONTRIBUTION TO THE GOALS OF THE UNITED NATIONS 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT

By implementing the actions outlined below, the NCC supports the following Sustainable Development Goals:



2018–2023 Actions to support connecting Canadians with nature

ACTION	INDICATOR	TARGET	DEADLINE
9.1 Develop new partnerships with local organizations to deliver programs and initiatives that engage and educate citizens about nature and biodiversity conservation on NCC lands.	Number of volunteers, participants and visitors in NCC parks and green spaces	Increased number of volunteers, participants and visitors	2020
9.2 Promote greater accessibility of Capital parks and green spaces by public transit.	Completion of assessment of green space accessibility and proposed recommendations to increase accessibility by public transit	-	2021
9.3 Work with partners and the private sector to install new bike share locations in NCC urban green spaces.	Number of new bike share locations	Increased number of bike share locations	2022

10 Safe and healthy communities



All Canadians live in clean, sustainable communities that contribute to their health and well-being.

WHY IS THIS IMPORTANT?

The federal government is committed to ensuring that Canadians live in clean and safe environments. Among other measures, this means improving air quality, protecting Canadians from harmful substances, and managing and remediating sites that have been contaminated over the years. Under this goal, the Federal Sustainable Development Strategy aims to remediate 599 of the highest-priority sites under the Federal Contamination Sites Action Plan by 2019–2020.

NCC ROLE

To prevent the pollution of lands, groundwater and surface water, the NCC applies strict environmental standards to operations and practices on its lands, which also contributes to ensuring safe and healthy communities. The NCC manages 1,367 buildings, and implements a program to identify and assess buildings where

designated substances, such as asbestos and lead-based paint, may be present. Contaminated sites on NCC lands are a legacy of the region’s industrial activities in the past century. The NCC continues to manage a significant decontamination program at its sites (a total of 1,578 contaminated sites).

THE NCC’S CONTRIBUTION TO THE GOALS OF THE UNITED NATIONS 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT

By implementing the actions outlined below, the NCC supports the following Sustainable Development Goals:



2018–2023 Actions to support safe and healthy communities

ACTION	INDICATOR	TARGET	DEADLINE
10.1 Remediate the highest-priority sites on NCC lands, under the Federal Contaminated Sites Action Plan.	Hectares of remediated land	1.5	2023
10.2 Assess alternatives to the use of chemical pesticides on NCC lands with a view to revising existing policies and practices.	Completion of an assessment of pesticide use on NCC lands	-	2020
	Revision of NCC pesticide policy completed	-	2022

Get Involved

Everyone in the National Capital Region has a role to play to build a greener and more sustainable National Capital Region. Whether you're involved in the local business community, active in your neighbourhood, or interested in greening your own home, your efforts are essential to our shared success. If you're not already involved, we hope you will join us.

Stay Connected

Please visit our [Building a Greener Capital web page](#), where you will find more information about our baselines and progress made. We welcome any and all feedback as to how the NCC's sustainability efforts might be strengthened or improved upon.

For more information, to learn more or to get involved in this work, please contact us at info@ncc-ccn.ca.



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Sustainable Development Strategy, 2018–2023
Catalogue number:

**APPENDIX 3: TABLES OF ESTIMATED COST FOR THE PROPOSED ACTIONS
SUSTAINABLE DEVELOPMENT STRATEGY 2018-2023, NCC**

Table 1: Proposed actions with no incremental cost

- No incremental hard cost has been identified for 19 out of the 34 proposed actions and they can be implemented through existing reference levels.
- Some human resources are likely to be required but reallocated from current efforts.
- Four actions could potentially generate substantial savings or revenue.

Actions	Potential Savings or Revenue
1.2 Promote the development of surplus NCC brownfield sites and sites adjacent to transit nodes, consistent with NCC plans.	Substantial
2.2 Integrate a greenhouse gas emissions analysis into renovation and construction projects considering best practices guidelines for heritage buildings and sites.	Substantial
2.4 Adopt minimum energy- and water-efficiency standards for renovations and construction on NCC land, including for heritage buildings.	Substantial
2.5 Purchase zero-emission or hybrid vehicles for the fleet.	Substantial
1.3 Evaluate the risk of climate change impacts on NCC assets, programs and services, and develop a climate change adaptation and resiliency plan.	-
2.3 Track energy consumption and greenhouse gas emissions of NCC buildings and lands, including new leased facilities and renewed leases.	-
3.1 Adopt stormwater management guidelines to reduce impacts on water quality and quantity.	-
5.2 Continue to establish riparian corridor zones within leased properties.	-
6.1 Adopt and implement a forest strategy which considers natural and cultural heritage values, and focuses on urban tree protection.	-
6.2 Control the spread of invasive plant species, in collaboration with regional stakeholders.	-
6.4 Renew the Corporate Natural Resources Action Plan, which includes the improvement of biodiversity health on NCC lands.	-
7.3 Create a pollinator habitat landscape program.	-

**APPENDIX 3: TABLES OF ESTIMATED COST FOR THE PROPOSED ACTIONS
SUSTAINABLE DEVELOPMENT STRATEGY 2018-2023, NCC**

Table 1 (continued)

Actions	Potential Savings or Revenue
8.1 Create a campaign to promote local food produced on NCC lands.	-
8.3 Diversify farmlands covered by monoculture farming operations, and increase food production on existing Greenbelt farmlands.	-
9.1 Develop new partnerships with local organizations to deliver programs and initiatives that engage and educate citizens about nature and biodiversity conservation on NCC lands.	-
9.2 Promote greater accessibility of Capital parks and green spaces by public transit.	-
9.3 Work with partners and the private sector to install new bike share locations in NCC urban green spaces.	-
10.1 Remediate the highest-priority sites on NCC lands, under the Federal Contaminated Sites Action Plan.	-
10.2 Assess alternatives to the use of chemical pesticides on NCC lands with a view to revising existing policies and practices.	-

**APPENDIX 3: TABLES OF ESTIMATED COST FOR THE PROPOSED ACTIONS
SUSTAINABLE DEVELOPMENT STRATEGY 2018-2023, NCC**

Table 2: Proposed actions with an incremental cost

- Additional resources are required for the implementation of 15 out of the 34 proposed actions. Existing reference levels are insufficient to ensure the completion of the actions listed below.
- An estimated total of \$2,250,000 would be required over the next five years.
- Four actions could potentially generate savings or revenue.
- Some actions could be financially supported through future partnerships.

Actions	Estimated Incremental Cost	Potential Savings or Revenue
3.2 Assess the flood risk for NCC operations and assets located in the 100-year and 350-year flood plains	\$50,000	Substantial
2.7 Invest in measures to support low-carbon forms of transportation to reduce emissions from employee commuting and business travel	\$25,000	Minor
4.1 Assess the renewable energy potential of NCC land and buildings to increase the proportion of off-grid renewable energy systems	\$50,000	Minor
4.2 Facilitate the connection of federal and NCC-owned buildings to the Public Services and Procurement Canada (PSPC) district energy system	Unknown	Minor
1.1 Promote sustainable transportation and mobility in the National Capital Region	\$100,000	-
1.4 Install electric vehicle charging stations at NCC parking lots	\$100,000	-
2.1 Undertake energy audits of residential, commercial and official residences buildings	\$500,000	-
2.6 Launch a green procurement policy for services and goods	\$50,000	-
2.8 Increase the waste diversion rate in public areas and NCC operations	\$50,000	-
5.1 Prioritize and restore degraded shorelines along watercourses and lakes on NCC lands to improve ecosystem function	\$1,000,000	-
6.3 Promote the connectivity of ecosystems and natural habitats in the National Capital Region	\$100,000	-

**APPENDIX 3: TABLES OF ESTIMATED COST FOR THE PROPOSED ACTIONS
SUSTAINABLE DEVELOPMENT STRATEGY 2018-2023, NCC**

Table 2 (continued)

Actions	Estimated Incremental Cost	Potential Savings or Revenue
7.1 Adopt bird-friendly standards for building design and landscaping for federal buildings and lands, to reduce negative impacts on birds	\$50,000	-
7.2 Acquire and analyze ecological land classification data to identify and protect habitat of potential species at risk	\$100,000	-
7.4 Develop road ecology thresholds and guidelines to minimize wildlife mortality on roadways	Unknown	-
8.2 Develop a food strategy for urban lands to complement the Sustainable Agriculture and Food Strategy	\$50,000	-