

Canada

We protect our precious legacy, the natural and cultural heritage of the National Capital Region. We work with community partners for a green and inclusive region. We value the health and well-being of all residents and visitors. We take action on climate change, build resilient infrastructure, protect natural capital, promote sustainable agriculture and safe communities, and connect Canadians with nature.



## **About the NCC**

#### The Role of 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.

Under the Plan for Canada's Capital, 2017-2067, various master plans and demonstration plans identify more detailed policies for specific areas of the NCC's mandate, including the Greenbelt, Gatineau Park, the core area of the Capital and urban lands. The actions in this strategy support the broader plans that pertain to these areas.

#### **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.





#### The NCC's Assets

The NCC manages a diverse portfolio of assets, including the following:

- 1,700 properties
- almost 1,400 buildings, including approximately 300 residential and 150 commercial buildings
- six official residences, including the residence of the governor general of Canada and the official residence of Canada's prime minister
- 13 urban parks
- Gatineau Park (361 km²)
- the Greenbelt (200 km<sup>2</sup>)
- 300 kilometres of pathways
- 125 kilometres of parkways
- 145 bridges
- the Rideau Canal Skateway

## **Natural Capital**

Much of the land in the NCC's care is green space—and much of it in its natural state—consisting of forests, wetlands and fresh water, as well as agricultural lands and urban parkland. These lands and the ecosystem services they provide are invaluable to the Capital Region. Not only do they contribute direct monetary benefits, such as from wood and agricultural products, but they also provide important value in benefits that are not measured according to traditional market metrics. These benefits include air quality control, water filtration, climate regulation, carbon storage, wildlife habitat and erosion control.

In December 2016, the NCC completed the first valuation of the Capital Region's natural capital, in partnership with scientists at the Université du Québec and the David Suzuki Foundation. The study analyzed the ecosystems on NCC lands, and determined their value based on the variety and importance of the ecosystem services they provide, which is as follows:

- wetlands (\$59,394/ha/year)
- urban forests (\$9,352/ha/year)
- rural forests (\$4,183/ha/year)
- prairies and grasslands (\$3,338/ha/year)
- croplands (\$1,363/ha/year)
- freshwater systems (\$137/ha/year).

In total, the economic value of all natural and cultivated NCC green space averages \$332 million per year. Non-market ecosystem services, such as habitat for biodiversity, waste treatment, disturbance prevention and global climate regulation, account for the major share of this total value. As the principal steward of federal lands and the associated natural capital in Canada's Capital Region, the NCC is uniquely placed to play a leading role in building a greener capital to ensure the long-term sustainability of the Capital Region.

## Canada's Federal Sustainability Framework

The Government of Canada aspires to reduce its carbon footprint, promote environmentally responsible economic growth, protect and restore ecosystems, and ensure that Canadians flourish in clean and healthy environments. Its Federal Sustainable Development Strategy, a wholeof-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 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. The NCC has adopted many of these goals.

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

Federal Sustainable Development Strategy

# 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.

The NCC's Sustainable Development Strategy supports the United Nations Sustainable Development Goals. It directly contributes to 10 Sustainable Development Goals, with an emphasis on making the Capital Region inclusive, safe, resilient and sustainable; taking action to combat climate change and its impacts; conserving lakes and rivers; protecting, restoring and promoting the sustainable use of terrestrial ecosystems; sustainably managing forests; and halting and reversing land degradation and biodiversity loss. The NCC is also committed to contributing to positive human health and well-being outcomes.

Read more about the NCC's commitment to the Sustainable Development Goals in the sections entitled "The NCC's principles" and "The NCC's actions."





































## The NCC's **Accomplishments** So Far

The NCC has a long tradition of environmental protection within Canada's Capital Region. Its first environmental strategy, entitled Building a Greener Capital (2009-2017), was built on this tradition, and had ambitious targets for environmental action in five areas: reducing waste, protecting biodiversity, preventing pollution, leading in environmental practices and combatting climate change. Many accomplishments were recorded under this strategy between 2009 and 2017. For more information, read the Final Environment Report. 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 keep 93.7 percent of the waste from 70 demolition projects out of landfills.

## **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 of 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. The NCC also banned the use of cosmetic pesticides on its lands.



#### Leading in environmental practices

The NCC completed a number of green building projects. A major renovation of the Dome Building at Rideau Hall was LEED® certified Silver, and the new building at 7 Clarence Street was built to LEED® Gold standards. 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 geothermal heating and cooling system at the Moore Farm.

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 to reduce the number of cars in the Park at this time.

## 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.

> major renovation was certified



The waste diversion rate on the **Rideau Canal** Skateway increased by



**65.4%** 



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

> **Greenhouse gas** emissions were reduced by



compared with a 2011-2012 baseline year.

34%



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



of the NCC's contaminated sites were secured.



of demolition waste were diverted from landfill.



people participated in conservation education programs and activities.

# Moving Forward From the Previous Environmental Strategy

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 continue to be part of everyday NCC operations, and by strengthening those objectives that require further work.

#### **Carry-over indicators**

In some cases, environmental strategy objectives 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. In addition, environmental management practices are now incorporated into all NCC maintenance contracts, and partners hosting events on NCC lands are asked to divert the waste generated during the event from landfill sites.

## 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 on its lands and in its 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 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 deliver educational programs, develop partnerships for urban food, improve accessibility to NCC green spaces, purchase low- or zero-emission vehicles, and install 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.

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 into a new era of sustainability in the Capital Region.

We have a strong tradition of environmental stewardship, and we want to do more.

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

The NCC Sustainable Development Strategy provides a focused and innovative agenda for environmental leadership in Canada's Capital Region, and serves as an overarching element to be included in all of the NCC's plans, strategies, policies and operations.

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.

#### Partnerships for regional sustainability

Creating sustainable communities requires collaboration across political and geographical boundaries, as well as knowledge and expertise from various disciplines. The NCC brings together

conservation groups, active mobility 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 and implement projects in order to address important challenges and opportunities in the region. Through the implementation of this strategy, the NCC will act as a leader jointly with its regional partners to move beyond merely greening NCC operations and toward a more sustainable Capital Region.

# Improving the built environment for human health

The built environment has many impacts on the health and wellness of Canadians. 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 access to the natural environment, the quality of the built environment, aesthetic elements, transportation options, physical accessibility, access to healthful food, and safety from toxic substances and extreme weather events. Many of the actions included in this strategy have the potential to positively influence these determinants of human health.

## The NCC's principles

This strategy is founded on six principles which 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 implement the commitments identified under each principle by 2023 and to report on progress annually.

The NCC regularly reports on progress, including both successes and shortfalls, to the Government of Canada, stakeholders and the public.

#### **Commitments**

Report on progress via the NCC's annual report, website and social media, and through the Federal Sustainable Development Act reporting process.

Address shortfalls by making changes to the Sustainable Development Strategy's implementation plans, as necessary.

The NCC acts as a leader in promoting excellence in environmental sustainability in the National Capital Region.

#### **Commitments**

Convene an annual regional sustainability workshop.

Lead by example, by applying best practices in terms of heritage and sustainability, including the NCC's challenging its partners through its federal approval role to do the same.

Identify financing streams for the implementation of this strategy, including a green fund and corporate partnerships.

Leadership Collaboration

Natural capital is consistently valued and integrated into the NCC's decision making.

#### **Commitments**

Communicate the importance of the ecosystem services provided by NCC green spaces, and provide training for NCC staff on natural capital.

Adopt a method for natural capital accounting.

Revise the project management process and prioritization tools to include natural capital values.

The NCC continually seeks collaboration with regional partners to improve understanding of regional environmental processes and best practices.

#### **Commitments**

Work with regional municipalities, provincial and federal governments, academia, Indigenous peoples, and non-governmental organizations to identify common interests and leverage resources for projects.

Build relationships and maintain an ongoing dialogue with Indigenous peoples.

The NCC seeks ongoing public, stakeholder and staff input to shape the priorities and support the implementation of the strategy.

#### **Commitments**

Use the NCC's Urbanism Lab and lands to host events that bring internal and external partners together for environmental engagement and capacity building.

Create a platform to collect comments on the strategy at any time, and reach out to the public, via a public consultation process, every three years.

The NCC considers the social and health impacts of its built environment and services for diverse communities and visitors in the **National Capital Region.** 

#### **Commitments**

Provide training for NCC staff on how to assess and enhance social equity in plans, projects and programs.

Conduct a geospatial study through the perspective of population health and wellness and social equity to guide new or renewed NCC plans, projects and programs.

Revise the project management process and prioritization tools to include social equity.





## 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 moving toward a low-carbon economy and reducing our greenhouse gas emissions, while increasing our prosperity. Adaptation—also key in dealing with 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**

By virtue of its legislated federal planning mandate, as well as through its ownership of lands and infrastructure, such as bridges, parkways and corridors, and multi-use pathways, the NCC can influence urban redevelopment, intensification and mobility in the region and encourage sustainable behaviour.

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 damage to assets and infrastructure that could be affected by climate change impacts such as flooding, more frequent and severe wildfires, pest outbreaks, and extreme weather events.

#### 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
		Promote sustainable transportation and mobility in the National Capital Region.	Renewal of the Capital Pathway Strategic Plan completed	-	2019
III.	National		Renewal of the Parkways Policy completed	-	2020
			Renewal of the regional sustainable transportation and mobility strategy completed	-	2023
	especially in federal employment nodes and in other		Average number of kilometres travelled by private vehicles to/from traffic zones around federal employment nodes	Decrease from 2019 baseline	2023
die			Percentage of private vehicle use for travel to work in federal employment nodes	Decrease from 2020 baseline	2023
		the development of surplus NCC brownfield sites and acent to transit nodes, consistent with NCC plans.	Hectares of sites under contract for remediation and development	23	2023
		the risk of climate change impacts on NCC assets,	Completion of a research study for the Rideau Canal Skateway	-	2019
	, ,	programs and services, and develop a climate change adaptation and resiliency plan.	Completion of a research study for NCC assets, programs and services	-	2020
III			Completion of the climate change adaptation and resiliency plan	-	2022
			Percentage of projects that integrate climate change adaptation	100%	2023
	1.5 Install ele	ectric vehicle charging stations at NCC parking lots.	Number of electric vehicle charging stations on NCC properties	10	2021

## 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 also contributing to the 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, and by 80 percent below 2005 levels by 2050. Federal investments in cleaner energy and in energy efficiency have already reduced greenhouse gas emissions from federal operations by 28 percent from 2005 levels.

#### **NCC ROLE**

As Canada addresses the challenge of climate change, the NCC will ensure that its future investments reduce greenhouse gas emissions, which will lead to cost savings. The NCC owns a large amount of property, 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 water. Many of these buildings are heritage assets which the NCC strives to conserve and protect as they fulfill 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 equivalent, and has reduced scope 1 and 2 greenhouse gas emissions by 15.4 percent compared with a 2011-2012 baseline year. Greener standards for retrofits, rehabilitation and construction, energy efficiency, and the inclusion of new sources of renewable energy will help reduce the carbon footprint of the NCC's assets.

The NCC takes many steps to reduce the amount of solid waste generated on its lands. In addition to reducing waste produced in its offices and implementing green purchasing guidelines, the NCC ensures that waste from the Rideau Canal Skateway and commercial leases is recycled and composted. The NCC encourages partners hosting events on its lands to divert waste generated during the event from landfill sites. Green building demolition practices also require waste sorting and diversion.

#### 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

ACTI	ON	INDICATOR	TARGET	DEADLINE
	Undertake energy audits of residential, commercial and official residences buildings.	Percentage of NCC-owned energy-consuming buildings audited	75%	2021
	ntegrate a greenhouse gas emissions analysis into renovation and construction projects considering best practices quidelines	Adoption of a greenhouse emissions analysis methodology	-	2020
	for heritage buildings and sites.*	Percentage of projects integrating greenhouse gas emissions analysis	75%	2021
		Percentage reduction in tonnes of $\text{CO}_2$ equivalent from scope 1 and 2 emissions, compared with 2005 baseline	40%	2030
ε	rack energy and water consumption and greenhouse gas emissions of NCC buildings and lands, including new leased facilities and renewed leases.	Percentage of NCC-owned energy and water-consuming buildings tracked in ENERGY STAR Portfolio Manager	75%	2019
•	acinties and renewed leases.	Percentage reduction in tonnes of $\text{CO}_2$ equivalent from scope 1 and 2 emissions compared with 2005 baseline	40%	2030
	Adopt minimum energy- and water-efficiency standards for	Adoption of minimum energy- and water-efficiency standards	-	2021
	renovations and construction on NCC land, including for heritage buildings.	Percentage reduction in tonnes of $\text{CO}_2$ equivalent from scope 1 and 2 emissions, compared with 2005 baseline	40%	2030
<b>2.5</b> P	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 $\text{CO}_2$ equivalent from scope 1 and 2 emissions compared with 2005 baseline	40%	2030
<b>2.6</b> L	aunch a green purchasing policy for services and goods.	Adoption of green procurement policy, which includes life cycle analysis	-	2020
	nvest 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
	to reduce emissions from employee commuting and business travel.	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
	Reduce the amount of waste sent to landfill from 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 the NCC's offices	60%	2019
		Percentage of diverted waste from major events on NCC lands	50%	2019
		Percentage of diverted waste along the Rideau Canal corridor	60%	2023



 $<sup>{}^{\</sup>star} \, \underline{\textbf{Standards and Guidelines for the Conservation of Historic Places in Canada}} \, \underline{\textbf{and}} \, \underline{\textbf{Building Resilience: Practical Guidelines for the Sustainable Rehabilitation of Buildings in Canada}} \, \underline{\textbf{Canada}} \, \underline{\textbf{Canada}} \, \underline{\textbf{Canada}} \, \underline{\textbf{Canada}} \, \underline{\textbf{Canada}} \, \underline{\textbf{Canada}}} \, \underline{\textbf{Canada}} \, \underline$ 

## Modern and resilient infrastructure



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

#### WHY IS THIS IMPORTANT?

With the increasing impacts of climate change, climate-resilient infrastructure that protects Canadians will become more important to sustain economic, environmental and social well-being. While all infrastructure funding will play a role in supporting sustainable development, federal green infrastructure funding will be a priority, especially in projects such as water and wastewater systems, 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 environmental impacts like flooding represent challenges 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	Adoption of stormwater management guidelines	-	2019
	to reduce impacts on water quality and quantity.	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





## **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 lowcarbon 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, as well as improvement of human health.

#### **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
<b>4.1</b> Assess the renewable energy potential of NCC land and buildings to increase the proportion of 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 hulldings*	2023

<sup>\*</sup> Target to be defined with regional partners.

## **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
	<b>5.1</b> Prioritize and restore degraded shorelines along watercourses and lakes	Identification and prioritization of degraded shorelines	-	2019
Ņ	on NCC lands to improve ecosystem integrity.	Completion of an assessment of threatened archaeological legacy on NCC shorelines	-	2021
		Percentage of high-priority shorelines stabilized and restored	25%	2023
١	<b>5.2</b> Continue to protect shoreline vegetation zones within leased properties.	Percentage of new leases with riparian protection measures for shoreline vegetation	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 settler Canadians. Two of the Federal Sustainable Development Strategy's medium-term targets are relevant to the NCC. 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 over 10 percent of the lands in Canada's Capital Region, which totals over 600 km<sup>2</sup>. This makes the NCC the region's largest land manager, thus it has a responsibility 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 km<sup>2</sup>), 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 from 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
-1	<b>6.1</b> Adopt and implement a forest strategy that	Adoption of a forest strategy	-	2019
<b>S</b>	considers natural and cultural heritage values, and focuses on urban tree protection.	Number of trees planted	100,000	2022
	<b>6.2</b> Control the spread of invasive plant species, in collaboration with regional stakeholders.	Adoption of a coordinated approach	-	2020
	<b>6.3</b> 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	-	2023
	<b>6.4</b> Renew the Corporate Natural Resources Action Plan,	Renewal of the Corporate Natural Resources Action Plan completed	-	2018
	which supports projects that expand knowledge of biodiversity health on NCC lands.	Number of projects completed under the Corporate Natural Resources Action Plan	15	2022

## 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 lands managed by the NCC—and represent 58 percent of those 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 Goals:





#### 2018-2023 Actions to support healthy wildlife populations

	ACTION	INDICATOR	TARGET	DEADLINE	
	7.1 Adopt bird-friendly standards for building design,	Adoption of bird-friendly design standards	-	2019	
	including landscaping and lighting, for federal buildings and lands.	Percentage of new projects that apply bird-friendly standards	100%	2023	
7	7.2 Acquire and analyze ecological land classification data	Completion of data acquisition and analysis for designated natural areas	-	2021	
	to identify and protect habitat of potential species at risk.	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	
١	7.4 Develop guidelines to minimize wildlife mortality on roadways.	Completion of a research project to inform decision making regarding the impact of roads on wildlife		2023	

<sup>\*</sup> A baseline will be measured

# 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. The NCC manages approximately 90 farms (market gardens, dairies, and crop and livestock farms) located primarily in the Greenbelt, but also on urban lands. Of these, 26 produce food for the region. These farms are living symbols of the natural and cultural landscapes that provided the foundation for much

of Canada's inhabited areas. They also 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
	<b>8.1</b> Create a campaign to promote the consumption of local food produced on NCC lands.	Launch of a locally produced food campaign	-	2020
, l	8.2 Develop a food strategy for urban lands to	Completion of a food strategy	-	2022
	complement the <u>Sustainable Agriculture and Food Strategy</u> .	Number of partnerships for implementing the urban food strategy	5	2022
	<b>8.3</b> Enhance the conservation and quality of soil and water resources.	Number of projects implemented that apply best management practices, are pilot or research projects, and include data acquisition and analysis of soil health and quality	5	2023
	<b>8.4</b> Diversify farmlands covered by monoculture farming operations, and increase regional food production on	Completion of an assessment of the food produced on NCC lands (type, quality and quantity, currently and potentially)	-	2020
	existing Greenbelt farmlands.	Number of hectares of existing Greenbelt farmlands converted for regional food production	200	2021



## **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
	<b>9.1</b> 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, farms and green spaces	Increased number of volunteers, participants and visitors*	2020
•	<b>9.2</b> 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
	<b>9.3</b> 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

<sup>\*</sup> Targets to be defined with regional partners.

## 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 Contaminated 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. For example, the NCC adopted a pesticide policy to control the use of pesticides for cosmetic purposes on its lands.

The NCC manages 1,367 buildings, and implements a program to identify and assess buildings where pollutants 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 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

ACT	ION	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	Completion of an assessment of pesticide use on NCC lands	-	2020
	lands with a view to revising existing policies and practices.	Revision of NCC pesticide policy completed	-	2022

## **Glossary**

Climate change adaptation: Adjusting decisions, activities and thinking because of observed or expected changes in climate, in order to reduce harm or take advantage of new opportunities.

Biodiversity: The full range of animals, plants and other living things, and the places where they live on the planet.

Brownfield site: Abandoned, idle or underutilized commercial or industrial property where past actions have caused environmental contamination, but which still has potential for redevelopment or other economic opportunities. Brownfields are typically located in urban areas.

Carbon footprint: The total set of carbon-containing emissions (mainly CO<sub>2</sub>) caused directly and indirectly by an individual, organization, event or product.

Clean energy: Renewable, nuclear, and carbon capture and storage technologies, as well as demand reduction through energy efficiency.

Conservation land: Land specially designated by federal, provincial/territorial or local bodies to protect fragile or important ecosystems, habitats and species at risk.

Contaminated site: Areas of land that contain chemical substances (e.g. heavy metals or petroleum products) that may pose a hazard to human health or the environment, or that exceed the levels set out in policies and regulations.

District energy system: A system made up of central plants that heat buildings with hot water or steam and cool buildings with chilled water. The water circulates through underground pipes connected in a loop. This process uses less energy and is more efficient than having equipment in each individual building.

Ecological integrity: A condition in which the natural components of an ecosystem—including physical elements, diversity of species and habitats, and ecological processes—are likely to persist.

**Ecosystem:** A unit of interdependent organisms that share the same habitat.

Ecosystem services: Services that humans derive from ecological functions such as photosynthesis, oxygen production and water purification.

Energy efficiency: Refers to how effectively energy is being used for a given purpose. For example, performing a similar function or providing a similar (or better) level of service with less energy consumption on a per unit basis is considered an improvement in energy efficiency.

**Geothermal:** Energy captured from the heat stored beneath the earth's surface or from the absorbed heat in the atmosphere and oceans. In the first instance, geothermal energy can be captured from naturally occurring underground steam and used to produce electricity. In the second instance, heating and cooling can be achieved by taking advantage of the temperature differential between outside air and the ground or groundwater.

Green demolition: The process of dismantling a building in such a way as to ensure that as many of its elements as possible can be recycled or reused, rather than sent to landfills.

<sup>\*</sup> Definitions sourced from the Federal Sustainable Development Strategy, the NCC's Final Environment Report (2016–2017), the NCC's natural capital document, the Public Health Agency of Canada, Environment and Climate Change Canada, Natural Resources Canada, Public Services and Procurement Canada, and the Government of Ontario.

**Greenhouse gas:** Gases such as nitrous oxide  $(N_2O)$ , methane  $(CH_4)$  and especially carbon dioxide  $(CO_2)$  that accumulate in the atmosphere and act to retain atmospheric heat, thus contributing to climate change.

Green infrastructure: Infrastructure that protects communities and supports Canada's ongoing transition to a clean growth economy.

Green procurement: An approach to business purchasing in which the environmental impacts of goods and services, in addition to price and quality, play an important role in purchasing decisions.

High-value ecosystem or habitat: An ecosystem or habitat that is considered important for the maintenance of biodiversity because it has some combination of the following characteristics: a large diversity of species, habitat for species at risk and/or migratory species, and intact natural processes likely to support increased genetic diversity.

Natural capital: Natural resource stocks, land and ecosystems, which provide an array of resources and flows of ecosystem services necessary for life on earth.

Protected area: A clearly defined geographical space, recognized, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values.

Renewable energy: Energy derived from sources that are either inexhaustible, such as the sun (solar energy), wind or waves (tidal energy), or that can be naturally replenished before being exhausted, such as biomass and river flow (hydroelectric power).

Resilience: The ability of a social or ecological system to absorb disturbances while retaining the same basic structure and ways of functioning, the capacity of self-organization, and the capacity to adapt to stress and change.

Secured site: A contaminated site where all necessary study, remediation and other risk management actions have been taken, consistent with the designated use of the site.

Social equity (or social justice): Refers to the concept of a society that gives individuals and groups fair treatment and an equitable share of the benefits of society. In this context, social justice is based on the concepts of human rights and equity. Under social justice, all groups and individuals are entitled equally to important rights such as health protection and minimal standards of income.

Species at risk: Plant or animal species with special status at the federal or provincial level because it is vulnerable to extinction. Species may be listed as being of special concern, threatened, endangered, extirpated or extinct.

Stewardship: Management of resources in such a way that they can be passed on with integrity to future generations.

Stormwater: Rainwater, snowmelt or other form of precipitation that has contacted the ground or any surface.

Stormwater management: A process that deals with the component of the urban surface runoff that is or would be collected by means of separate municipal storm sewers.

Sustainable development: Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

Waste diversion: The reduction, reuse and recycling of waste, leading to a reduction of waste being sent to the landfill.

## **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.

# **Stay Connected**

Please visit our <u>Sustainable Development Strategy web page</u>, 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

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