NCC CCN

Canada

BUILDING A GREENER CAPITAL

National Capital Commission

Annual Environment Report

2015–2016

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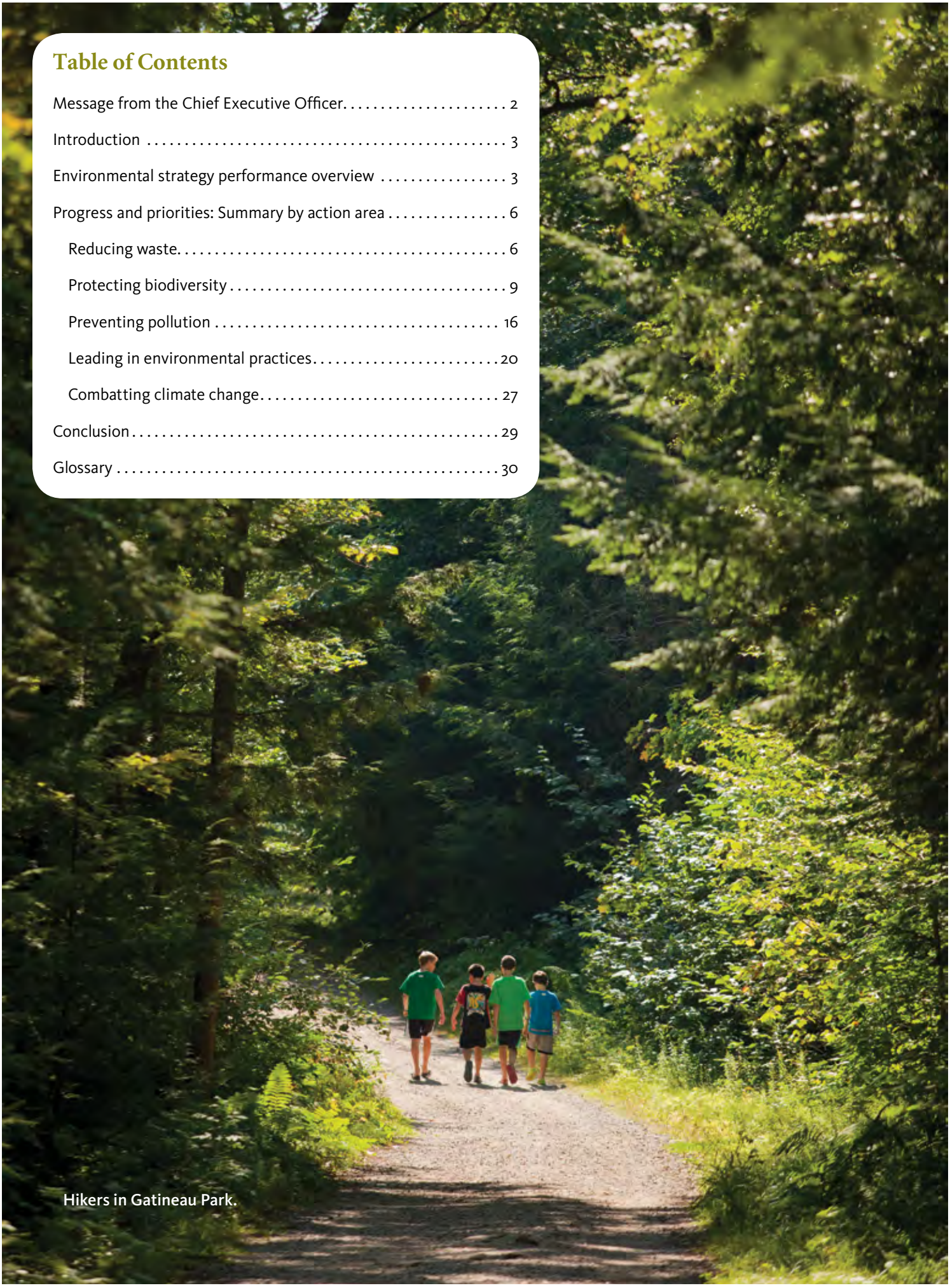


Hikers in Gatineau Park.

1. Message from the Chief Executive Officer

I am pleased to present the National Capital Commission's (NCC) Annual Environment Report, 2015–2016. This is the seventh annual report since the launch of the NCC's environmental strategy, *Building a Greener Capital*, in June 2009.

The NCC's development and implementation of concrete and targeted plans, projects and activities demonstrate our commitment to continue advancing toward our objectives. For the second year in a row, we reduced the amount of waste sent to landfill from the Rideau Canal Skateway. We launched a new action program for the stewardship of natural resources, focused more on species at risk and invasive species, and on the restoration of natural environments and ecosystems. We also replaced close to 35 percent of our motor vehicle fleet with more energy-efficient vehicles.

Our current environmental strategy expires on March 31, 2018. Thus, we have begun a review to update this strategy, and will be working in cooperation with the many partners who share our vision of effective, rigorous and responsible environmental management in the National Capital Region. The revised strategy on environmental sustainability will align with the priorities and targets set out in the Federal Sustainable Development Strategy, and will include inspiring and measurable objectives.

This report presents just a few of the successful results that serve to illustrate the commitment of NCC staff. I am proud of the contributions made by one and all, including the participation of our stakeholders and partners, and the constant efforts we have made to achieve our objectives. The NCC will continue to learn from experience, and continually strive to have a positive impact on the environment.

Dr. Mark Kristmanson
Chief Executive Officer

2. Introduction

The National Capital Commission's (NCC) environmental strategy provides a focused agenda for environmental leadership in Canada's Capital Region. Covering a period of nine years, the strategy aligns with the NCC's tradition of environmental stewardship and its core mission of building a great capital for all Canadians.

The strategy, entitled *Building a Greener Capital*, centres around five key action areas that are in accordance with the NCC's responsibilities and represent areas in which the NCC can make an important difference to the quality of the environment. These action areas are as follows: reducing waste, protecting biodiversity, preventing pollution, leading in environmental practices and combatting climate change. Each action area has one priority objective and a focused set of secondary targets.

This seventh annual report provides the NCC's Board of Directors and the public with a detailed account of the corporation's environmental performance for the 2015–2016 fiscal year. It builds on previous reports to illustrate the progress achieved by the NCC in meeting its objectives in all of the action areas. The report also describes how the NCC has managed important environmental regulatory compliance risks and issues during the year.

The NCC has also begun a review of its environmental strategy, as the current strategy will expire on March 31, 2018. Action areas and objectives will be reviewed to establish a new environmental sustainability program. The new targets and objectives will be inspiring, motivating and measurable, and they will align with the third cycle of the Federal Sustainable Development Strategy.

For more information about the NCC's environmental stewardship, including previous annual reports and the strategy itself, please visit the NCC's website: ncc-ccn.gc.ca/planning/environmental-strategy.

3. Environmental strategy performance overview

The following chart summarizes the NCC's progress toward meeting the objectives of its environmental strategy. It highlights accomplishments and provides information on obstacles or challenges that the NCC faces. Some objectives were revised in 2013–2014.

OBJECTIVES	HIGHLIGHTS OF ACCOMPLISHMENTS FOR 2015–2016	KEY CHALLENGES	CUMULATIVE STATUS
Reducing waste			
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.	A total of 1.6 tonnes of waste generated on the Rideau Canal Skateway in 2015–2016 was sent to landfill sites. This represents a 93 percent reduction compared with 2009–2010 levels, attributed to the sorting of Skateway waste and the short skating season.		 See page 6
The NCC will achieve 70 percent waste diversion (through reducing, reusing and recycling) from all NCC business areas by 2017.		The NCC must develop an action plan focused on the four main sources of waste associated with its activities: staff and office, events, public areas, and operations.	
The NCC will challenge partners hosting events on NCC lands to achieve a 50 percent waste diversion target.	The NCC has added clauses to partnership agreements for major events held on its lands.		
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.		
The NCC will implement green demolition practices by 2010, which place a strong emphasis on waste diversion and resource conservation.	A total of five green demolition projects were undertaken on NCC lands during the 2015–2016 fiscal year. A 92 percent diversion rate has been achieved as a result.		 See page 7
Protecting biodiversity			
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 IUCN categories.		
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 listed species at risk on NCC lands are taken into consideration during the environmental effects analysis for individual projects and within land management practices.		 See page 11
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 within land management practices.		
The NCC will develop a thorough understanding of biodiversity on NCC lands through its Natural Resources Research Program.	The NCC has adopted a new program of action for the stewardship of natural resources.		 See page 9
The NCC will reduce the amount of NCC urban land infested by invasive plant species by 10 percent by 2017.	Specific measures for controlling invasive plant species are still enforced under regular urban lands maintenance contracts. A vegetation management project began in the fall of 2015 to protect the ecological integrity of the Mud Lake natural habitat.	When the NCC launched its environmental strategy, the extent of invasive plant species on urban lands was unclear. The NCC is continuing to acquire knowledge about the extent of aggressive invasive alien plant species on NCC lands.	 See page 12

* The objective is on track or achieved. There is some delay in achieving the objective. There are significant delays, and the objective may not be met.

OBJECTIVES	HIGHLIGHTS OF ACCOMPLISHMENTS FOR 2015–2016	KEY CHALLENGES	CUMULATIVE STATUS
Preventing pollution			
All contaminated sites on NCC lands will be secured by 2017.		The NCC is securing sites based on risk to the public, the environment at the site and organizational requirements. Considering available financial resources, this ambitious objective will have to be revised.	 See page 16
The NCC will identify and remove or repair all problem underground storage tanks on NCC property by 2011.	All storage tanks on NCC property are compliant.		 See page 17
The NCC will adopt a policy to eliminate the use of pesticides for cosmetic purposes by 2010.	The NCC continues to uphold the policy governing pesticide use on its lands.		
Leading in environmental practices			
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.	Green building practices are incorporated into NCC projects. Environmental criteria are used to prioritize projects.	The high cost of LEED® certification is the main obstacle to achieving this objective, which should be revised to align with the Federal Sustainable Development Strategy.	 See page 20
The NCC will use green building practices for the construction of all buildings under 250 square metres.	Green building practices are incorporated into NCC projects. Environmental criteria are used to prioritize projects.		
The NCC will integrate environmental education into all NCC activities, where appropriate.	The NCC offered various activities for the general public and school groups, both in Gatineau Park and the Greenbelt.		 See page 23
The NCC will strengthen environmentally sensitive practices in all maintenance contracts.	The Environmental Maintenance Guidelines have been integrated into maintenance contracts to provide contractors with operational information.		
The NCC will provide and promote environmentally sustainable transportation alternatives.	A new section of the Capital Pathway has been completed in the Greenbelt.		 See page 23
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 continued to work with its partners on introducing measures in support of responsible water quality management.		 See page 21
In carrying out its planning mandate, the NCC will place priority on sustainable development approaches.	Development of the Ottawa River North Shore Riverfront Parks Improvement Plan, the plan for the Sir John A. Macdonald Parkway riverfront linear park, and the Capital Illumination Plan continued. Preference will be given to sustainable development approaches in implementing these three plans.		 See page 21
Combatting climate change			
The NCC will reduce its overall carbon footprint by 30 percent by 2017, based on a 2011–2012 baseline.	The NCC has replaced 34 percent of its vehicle fleet with more energy-efficient vehicles.	This is an ambitious objective and must be revised.	 See page 27
The NCC will seek renewable sources of energy. By 2013, 25 percent of all NCC electricity purchases will be from renewable sources.	The NCC does not need to alter its energy purchases at this time.		
The NCC will continue to broaden its knowledge of the effects of climate change on its operations.	No accomplishments in 2015–2016.		

*  The objective is on track or achieved. There is some delay in achieving the objective.  There are significant delays, and the objective may not be met.

4. Progress and priorities: Summary by action area

4.1 Reducing waste

Environmentally sound waste management focuses on both reducing the quantities of waste and increasing waste diversion through reusing, recycling and composting. The NCC continues to reduce the amount of waste going to landfill. Four of the five objectives for this action area have been met.

RIDEAU CANAL SKATEWAY

In keeping with its efforts to achieve the waste reduction priority objective, all waste generated on the Rideau Canal Skateway was properly sorted and processed. This approach was made possible by a team of waste management experts that was hired to collect, sort and transport the resulting waste, recyclables and compostable materials.

Table 2 indicates the total amount of waste, as well as recyclable and compostable material collected, during the Rideau Canal Skateway skating season from 2010 to 2016.

TABLE 2: RIDEAU CANAL SKATEWAY WASTE COLLECTION RESULTS, 2010–2016[1]

Measured results	2010	2011	2012	2013	2014	2015	2016
Total material collected	24.1	33.1	14.1	23.4	22.0	22.5	5.4
Total amount recycled	1.9	2.3	2.8	2.2	1.6	4.5	2.5
Total amount composted	0	0	1	1.7	–[2]	3.7	1.3
Total sent to landfill	**22.2**	**30.7**	**10.3**	**19.5**	**20.4**	**14.3**	**1.6**

1. Figures in metric tonnes and rounded to one decimal place.
2. Compost collected on the Rideau Canal Skateway was sent to composting facilities. However, changes to the collection system by the City of Ottawa did not allow the total amount composted to be determined.

As Table 2 indicates, only 1.6 tonnes of waste generated by the 2016 Rideau Canal Skateway skating season was sent to landfill. Waste sorting activities diverted 3.8 tonnes of materials from landfill. These results represent a landfill diversion rate of 70 percent—an improvement over previous years.

The 46th skating season was one of the shortest in the history of the Rideau Canal Skateway. The season lasted 34 days, with only 18 days of skating. The outcome was a significant reduction in the amount of waste sent to landfill: 0.09 tonnes per day of skating. Waste-sorting activities significantly reduced the ecological footprint of waste generated during the Rideau Canal Skateway's 2016 season.

TABLE 3: AMOUNT OF WASTE SENT TO LANDFILL, BY SKATING DAY

	2010	2011	2012	2013	2014	2015	2016
Number of skating days	36	53	26	38	58	59	18
Total sent to landfill*	22.2	30.7	10.3	19.5	20.4	14.3	1.6
Amount of waste sent to landfill per skating day*	**0.61**	**0.58**	**0.40**	**0.51**	**0.35**	**0.24**	**0.09**

*** Figures in metric tonnes.**

MAJOR EVENTS ON NCC LANDS

To encourage partners hosting events on NCC lands to achieve a 50 percent waste diversion target, the NCC has added appropriate clauses in its partnership agreements. All partners hosting major events on NCC lands must comply with mandatory waste management criteria. For example, they have to provide the NCC with weight tickets for the waste, recyclables and compostable materials generated. In addition, partners must provide the facilities necessary for the collection of these materials, including adequate signage, for use by the public, artists, food concessions and employees.

GREEN DEMOLITION PRACTICES

Green demolition involves dismantling a building with the goal of diverting at least 90 percent of the materials from landfill. Green demolition projects are conducted primarily in cases where buildings have reached the end of their life cycle or their maintenance is not economically viable.

For the 2015–2016 fiscal year, the NCC undertook five demolition projects that implemented green demolition practices. A 92 percent diversion rate was achieved. Overall, these projects diverted approximately 0.2 tonnes of plastic, 0.4 tonnes of metal, 15 tonnes of wood and 0.9 tonnes of shingles. A grand total of 143 tonnes of construction materials were diverted from landfill sites. By using green demolition practices and sound environmental management principles, the NCC is helping to reduce waste and preserve the environmental quality of the region.

PROJECTS PLANNED FOR THE 2016–2017 FISCAL YEAR

The NCC must develop an action plan focused on the four main sources of waste associated with its activities: staff and office, events, public areas, and operations. During the NCC environmental strategy review process, the objective of diverting 70 percent of waste from landfill in all sectors of NCC activity by 2017 will be analyzed, and concrete measures will be proposed.

For the purposes of Rideau Canal Skateway waste management and green demolition practices, the NCC will continue its efforts to reduce the amount of waste sent to landfill sites.

Skate shelter at Fifth Avenue on the Rideau Canal Skateway.

4.2 Protecting biodiversity

Conserving biodiversity improves the quality of life in the region, and is an essential element of a green capital. The NCC recognizes both the importance and the necessity of protecting ecosystems and natural habitats. It works with its regional, provincial and federal partners to make Canada's Capital Region a model of biodiversity protection. Four of the five objectives in this action area have been met.

ACQUISITION OF CONSERVATION LANDS

In 2015–2016, the NCC acquired seven properties in Gatineau Park. These 26 hectares of lands are adjacent to a conservation area, and directly linked to an ecological corridor, or located inside a high-value Gatineau Park ecosystem or habitat. Because of the location of these lands, this acquisition will contribute to conservation and the protection of biodiversity in Gatineau Park.

NATURAL RESOURCES RESEARCH PROGRAM

The NCC's Natural Resources Research Program began in 2003 and expired on March 31, 2016. Its goal was to implement research, inventory and monitoring projects that would add to the NCC's knowledge of natural resources in Gatineau Park and the Greenbelt and on NCC urban lands. A total of 37 research projects were completed, all of which gathered scientific knowledge to support decision making in natural resource management on NCC lands. The program also helped the NCC meet its environmental legal obligations, protect public health and safety, and reduce environmental risks.

To ensure effective natural resource management on NCC lands, a new natural resource stewardship program has been approved for three years, covering fiscal years 2016–2017 to 2018–2019. The program will focus on species at risk, invasive species, and the restoration of natural environments and ecosystems.

SPECIES AT RISK

The NCC continues to acquire and manage information about the presence of species at risk on its lands. This includes ongoing updates to a database and the mapping of potential and critical habitats. At present, the NCC estimates that its lands shelter approximately 200 species at risk. The term "species at risk" refers to plant and animal species with special status at the federal or provincial level. It also refers to species listed by the Committee on the Status of Endangered Wildlife in Canada and those appearing on provincial lists of species likely to be designated as threatened or vulnerable.

Waterfall on the Eardley Escarpment in Gatineau Park.

SPECIES AT RISK RECOVERY PROGRAMS, ACTION PLANS AND MANAGEMENT PLANS

As the manager of federal lands, the NCC works in partnership with Environment Canada by providing input on proposals for recovery and conservation programs, and plans for managing species at risk on its lands. The final versions of federal recovery programs for the least bittern and western chorus frog were made public in 2015. The NCC obtained layers of geographic information from Environment Canada for both species to identify their critical habitat on NCC lands, as designated under the *Species at Risk Act*. The NCC must protect these habitats through measures specified in its programs. The NCC also commented on the report by the Nature Conservancy of Canada, entitled *Stratégie d'intervention pour la conservation des habitats de la rainette faux-grillon de l'ouest en milieu agricole dans la vallée de l'Outaouais* [strategy for the conservation of western chorus frog habitat on Ottawa Valley farmland] (Nature Conservancy of Canada, 2015).

The protection of critical habitat and the objectives of the various recovery programs have always been taken into consideration in analyzing the environmental effects of specific projects. As well, the objectives of these plans are integrated into the natural resource management practices on NCC lands.

BIODIVERSITY INDICATORS

The NCC has always prioritized the monitoring of key biodiversity indicators and ecosystem health as a means of making informed natural resource management decisions. It continues to monitor the following 11 indicators on its lands: common loon, anurans, environmental fragmentation, invasive plants, surface water quality (lakes and streams), the riparian zone along recreational lakes, the impact of deer, breeding birds, soil fertility, infrastructure density, and plants at risk. In the summer of 2015, the following indicators were monitored in Gatineau Park: breeding birds, soil condition and infrastructure density.

An update with an analysis of the results obtained from the monitoring of biodiversity indicators was submitted in April 2016. The Status Report on Gatineau Park Ecosystems presents an overview of the health of Gatineau Park ecosystems, using data pertaining to environmental health indicators gathered over a period of up to 10 years. It discusses long-term trends in the Park, and identifies various issues of concern. The overall condition of Gatineau Park's seven valued ecosystems and natural habitats was considered "good." The report is available on the NCC's website (www.ncc-ccn.gc.ca/places-to-visit/gatineau-park/news/2016-04-28/gatineau-park-study-confirms-ecosystems-are-good-condi).

ECOLOGICAL CLASSIFICATION OF ECOSYSTEMS AND NATURAL HABITATS ON URBAN LANDS AND IN THE GREENBELT

An ecological land classification project for high-value ecosystems and natural habitats on urban lands and in the Greenbelt (major natural areas and natural links) was launched in summer 2014. The project is increasing knowledge of plant distribution and plant communities, as well as identifying and mapping ecological units according to vegetation, geology, geomorphology and climate. This ecological land classification contributes to a better understanding and management of natural resources.

RESPONSIBLE TRAIL MANAGEMENT PROJECT IN GATINEAU PARK

Gatineau Park has several entrance points and a large network (200 km) of official trails. However, each year, the NCC receives requests to create new trails or to change existing trails. New, unofficial trails are constantly being created by Park users, while Gatineau Park's official trail network has remained unchanged. From year to year, the gap has been widening, to the point that the network of unofficial trails has become larger than the official network. Studies conducted by the NCC and researchers on the Park's ecosystems indicate that habitat fragmentation created by trails has become a significant problem for the Park's ecological health, and that these unofficial trails represent a threat to species at risk.

The purpose of the responsible trail management project in Gatineau Park is to provide a network of trails that offers a diversified outdoor experience, meets the needs of users and takes some new recreational activities into consideration. This must be done in accordance with the NCC's legal obligations with respect to species at risk and with a view to limiting the overall fragmentation caused by trails, in accordance with Gatineau Park's conservation mandate. Several consultations have been held with user groups to enlist their involvement in seeking sustainable solutions to this problem.

MANAGEMENT OF INVASIVE PLANTS

Invasive plants can have wide-ranging effects on forests, natural habitats, the local economy and the public. The NCC is concerned about the following negative effects: deterioration of natural areas, impact on agriculture, dangers to human health and safety, socio-economic effects, and the negative impact on recreation and scenic value.

Over 45 invasive plant species are present in the NCC's high-value ecosystems and natural habitats. These include common buckthorn and glossy buckthorn, honeysuckle, Japanese knotweed, Eurasian water milfoil, wild parsnip, and dog-strangling vine. The NCC aims to limit the effects of invasive species on its lands; ensure the long-term preservation and protection of regional biodiversity, species at risk and associated habitat; restore high-value natural ecosystems and habitats; and minimize future invasions of new invasive species on its lands.

A few examples of awareness, research and control projects that have been completed include the following.

- In April and December 2015, the NCC and its regional partners, including the City of Ottawa and Ville de Gatineau, met to discuss priorities in the management of invasive plants. All of the regional partners face major challenges in this area. They would all like to see better regional coordination to harmonize their approaches to the management of invasive plants and to target the same species. The partners would also like to generate greater citizen awareness about the problem and presence of invasive plants. In the next few years, the NCC hopes to develop a coordinated approach to managing invasive species in the National Capital Region, in partnership with regional partners.

- In the past few years, wild parsnip has become a growing presence in the National Capital Region. Its stem, leaves and flowers contain a toxic sap that can increase the skin's sensitivity to sunlight and cause severe rashes. Growing to heights of up to 1.5 metres, it forms dense colonies that crowd out indigenous plants, thus reducing biodiversity. Since the species cannot be eradicated, the NCC would like to remind users about the presence of wild parsnip, and recommend that members of the public stay on official trails, not touch the plants and keep their pets on a leash.

- The Agence de Bassin versant des 7, in cooperation with the NCC and the Université du Québec à Trois-Rivières, created an experimental project for controlling Eurasian water milfoil through the installation of a biodegradable fabric. This physical barrier blocks the flexible stems of Eurasian water milfoil, but not the rigid stems of indigenous plants. Different types of fabric with mesh of varying sizes are being tested in Philippe Lake. This experimental monitoring will continue for three years.

- In Gatineau Park, a colony of dog-strangling vine covering over 1,700 m^2 was removed and covered with geotextile in the summer of 2015. Monitoring of control measures at this location will be undertaken over the next few years to completely eradicate this colony from the Eardley Plateau high-value ecosystem.

- Several common buckthorn, glossy buckthorn and dog-strangling vine mowing operations take place on NCC urban lands annually. These mowing activities occur along official pathways to limit the presence of these invasive species and improve user safety.

EMERALD ASH BORER

The emerald ash borer has been ravaging ash trees in Ontario and Quebec since 2008. This alien insect has few predators, and ash trees are defenceless against it. The entire National Capital Region is now affected by the emerald ash borer.

As part of the emerald ash borer management program on NCC urban lands, 185 ash trees received preventative treatment with a systemic insecticide over the summer of 2015. In the same period, approximately 6,150 ash trees on urban lands were cut down. These trees posed a risk to public safety.

The loss of ash trees on NCC property has had a major visual and environmental impact. To offset this loss, some 1,000 trees were planted in the spring of 2016.

To advance the fight against the emerald ash borer, a pilot project was undertaken with Quebec's Ministère des Forêts, de la Faune et des Parcs in an area of Gatineau Park. The project involved introducing a tiny, harmless wasp (*Tetrastichus planipennisi*) that attacks only the emerald ash borer. This natural (parasitic) enemy comes from the same area as the emerald ash borer and has the unique feature of laying its eggs in borer larvae, thus killing them. The pilot project will continue in 2016, and the findings will be shared subsequently.

SCIENTIFIC RESEARCH ON NCC LANDS

Rich and diverse ecosystems on NCC lands and their proximity to the urban environment make them an excellent site for research. This year, over 60 research permits were issued covering a range of topics. The solid scientific knowledge provided by researchers helps NCC biologists and managers make informed decisions in executing their management mandate for Capital lands.

For example, in 2015, scientists continued to study Mer Bleue Bog to determine the carbon balance of peatlands. Mer Bleue's unique location in the Greenbelt has made it one of the most studied bogs in the world. This collaborative research site is run by Dr. Elyn Humphreys (Carleton University), Dr. Nigel Roulet and Dr. Tim Moore (McGill University), Dr. Peter Lafleur (Trent University), and Dr. Jill Bubier (Mount Holyoke College, Massachusetts). In operation for nearly 16 years, it represents an extremely valuable dataset, and is the second-longest-running flux station in a peatland worldwide. These researchers, students and collaborators from around the world have published over 80 journal articles, as well as 45 honours and graduate theses on Mer Bleue.

On October 22, 2015, a meeting was held at the Capital Urbanism Lab with some 30 researchers working on NCC lands. In order to communicate and highlight the scientific findings, three presentations were delivered to the general public.

PROJECTS PLANNED FOR THE 2016–2017 FISCAL YEAR

The NCC will continue to monitor biodiversity indicators in the 2016–2017 fiscal year. It will also begin implementing its new action program for the stewardship of natural resources.

To protect the ecological integrity of the Mud Lake natural habitat, the Mud Lake vegetation management project will continue throughout the summer of 2016. Through a volunteer program, the project is controlling a number of invasive species in this natural urban habitat, one of the most environmentally important in the National Capital Region.

Lastly, Jérôme Dupras, a professor with the department of natural sciences at the Université du Québec en Outaouais, was hired to undertake a study on the economic value of ecosystem services on NCC lands. The goal of the study is to estimate the value of natural capital (forests, wetlands, streams, rivers, shorelines, farmlands and other land covers), as well as the ecosystem services and benefits of Gatineau Park, the Greenbelt and NCC urban lands. The results of this study will be provided in 2016–2017.

NO MILKWEED, NO MONARCHS: PROJECT TO ASSESS POTENTIAL MONARCH BUTTERFLY HABITAT IN GATINEAU PARK

Its brilliant colours make the monarch butterfly a definite eye-catcher. This protected species was listed as a species of special concern under the federal government's *Species at Risk Act* in 2003. A mighty traveller, the monarch undertakes the longest annual migration ever observed in the insect world. Its survival hinges on the availability of milkweed, a plant that provides shelter, food for monarch caterpillars and a breeding ground for adult specimens. Interestingly, by feeding on milkweed, the monarch butterfly becomes toxic, which protects it from most predators.

In 2015, the NCC received a grant from Environment Canada's Interdepartmental Recovery Fund (IRF) to undertake a project to assess potential monarch butterfly habitat in Gatineau Park. In the summer of 2015, milkweed density was assessed in 57 potential habitats. Based on this density, potential habitats were assigned a rating in terms of their value to the monarch. Further, observation of breeding populations through the monitoring of larvae and caterpillars was initiated in 13 habitats with a high or very high rating of importance for the monarch, and general management recommendations were made to improve the area and quality of potential monarch habitats in Gatineau Park. A new IRF application will be submitted to continue the project in 2016 on urban lands in Quebec. A specific action plan can then be developed to include protection of the monarch and its habitat in management practices.

4.3 Preventing pollution

The NCC is committed to protecting human health and the environment from the impacts of pollution. To prevent the pollution of lands, ground water and surface water, the NCC applies rigorous environmental standards to its operations and practices on its lands. Two of the three objectives for this action area have been met.

This section describes the NCC's various responsibilities under environmental regulations.

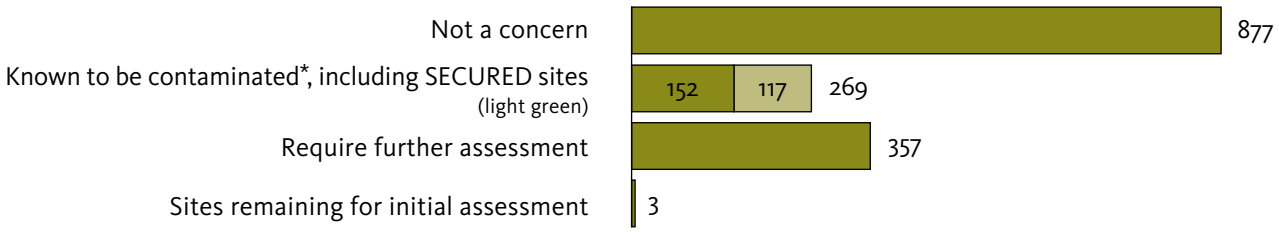
CONTAMINATED SITES

Contaminated sites on NCC lands are a legacy of the region's industrial activities in the past century. The NCC continues to manage an important decontamination program at its sites. However, the ambitious target of securing all contaminated sites will not be achieved by 2017. In order for a site to be considered secure, all necessary studies, remediation and other risk management actions must have been completed, in a manner consistent with the designated use of the site.

In 2015–2016, the NCC conducted 57 high-priority assessments. It also capped a portion of the former Ridge Road landfill site. The work aimed to repair the deteriorating cover installed at the time of the site's closure in 1975. The NCC also made alterations to the outlet tank used for leachate treatment. These alterations will ensure the effectiveness of the artificial wetlands built by the NCC in 2009 to filter noxious substances released from the former Ridge Road landfill site.

The following chart shows the status of contaminated sites in 2015–2016.

FIGURE 1: STATUS OF CONTAMINATED SITES, 2015–2016



*** *Note:* The sites known to be contaminated and secured are also included in the total number of sites known to be contaminated.**

In 2015–2016, the NCC reported an audited liability cost associated with environmental liability of $50.3 million, or $6.4 million more than the value reported for the previous year ($43.9 million). The increased environmental liability at the sites of Montcalm ($2.7 million), the Garden of the Provinces and Territories ($1.14 million), and the old landfill at Leamy Lake ($1.1 million) are the major adjustments. The NCC also reported an increased contingent liability cost of $478.2 million in 2015–2016, up from $474.3 million reported for the 2014–2015 fiscal year.

FUEL STORAGE TANKS

At the end of the 2015–2016 fiscal year, a total of 47 tanks on NCC lands were subject to the federal Petroleum and Allied Petroleum Products Storage Tanks Regulations. The tanks were inspected in 2015 to monitor the progress made toward meeting compliance requirements. All NCC tanks are compliant, and all tenants on NCC property have been informed that tanks must comply with the regulations.

DESIGNATED SUBSTANCES

The NCC owns 1,218 buildings in active use, and implements a program to identify and assess buildings where designated substances, such as asbestos and paint containing lead, may be found. This requirement is specified in the *Canada Labour Code*, Part II.

Sixteen buildings were assessed in 2015–2016, most considered of lower priority, to determine whether they contained any designated substances. Annual assessments to detect the presence of asbestos and lead were conducted in 20 buildings, and asbestos, lead and mould abatement projects were completed in 20 other buildings. Radon gas assessments were performed in nine buildings, and one radon mitigation project was also completed.

To date, the NCC has determined that 369 buildings are secure, based on the results of designated substance surveys. Seventy percent of the buildings owned by the NCC, or 856 buildings, contained at least one designated substance. Only 82 require high-priority action, due to the presence of asbestos or mould, or the poor condition of surfaces covered in lead paint.

TABLE 4: STATUS OF REVIEW OF NCC BUILDINGS FOR DESIGNATED SUBSTANCES, MARCH 31, 2016

Building status	2009–2010	2010–2011	2011–2012	2012–2013	2013–2014	2014–2015	2015–2016
Buildings in active use	**1,322**	**1,296**	**1,284**	**1,225**	**1,204**	**1,222**	**1,218**
Buildings determined to be unlikely to pose a risk	727	714	618	600	564	321	369
Buildings with designated substances	248	289	558	578	626	858	856
Buildings remaining to be assessed	347	293	108	47	14	133*	116*

*** *Note:* Prior to 2014–2015, only high-priority buildings were included in the data for this table. Since 2014–2015, all buildings requiring a study of designated substances have been included.**

FEDERAL PCB REGULATIONS

Owners of equipment that contain polychlorinated biphenyls (PCBs) are required to comply with the federal PCB regulations, which came into effect in 2008, and are part of the *Canadian Environmental Protection Act*, 1999. These regulations include reporting, record-keeping and labelling requirements, as well as end-of-use dates when PCB-containing equipment must be removed from service and destroyed. One key date is December 31, 2025. By this date, all PCB-containing equipment, including fluorescent light ballasts, must be removed.

The NCC is gradually compiling information to complete an inventory of PCB-containing equipment. To ensure efficiency, some of the information is collected when designated substances and hazardous materials surveys are undertaken.

FEDERAL HALOCARBON REGULATIONS

The NCC owns equipment containing substances that are subject to the Federal Halocarbon Regulations, 2003. The regulations are intended to reduce emissions of halocarbons by ensuring that equipment is in good working order. The NCC is gradually compiling information to complete an inventory of equipment that may contain halocarbons, such as refrigeration units and air conditioners, and upgrading the equipment as required.

SPILLS AND EMERGENCY RESPONSE

Six small spills occurred on lands belonging to the NCC in 2015–2016, and they were cleaned up in accordance with standards. These six spills were reported to the appropriate regulatory authorities.

PROJECTS PLANNED FOR THE 2016–2017 FISCAL YEAR

Cleanup operations at known contaminated NCC sites will remain a priority for the NCC in coming years. The NCC has obtained funding under Phase III of the Federal Contaminated Sites Action Plan (FCSAP) for 2016 to 2020. This program provides significant funding that assists the NCC in securing its contaminated sites and reducing its environmental liability. Phase III of the program provides funds specifically for the rehabilitation and assessment of high-priority, class 1 contaminated sites.

Additional funding announced in the 2016 federal budget will enable four decontamination projects to move forward in the next two years.

Grey tree frog

4.4 Leading in environmental practices

The NCC believes that it is important to look at ways to green all aspects of its business. This includes not only areas where the NCC may have direct control over outcomes, but also areas where the NCC and its staff have influence, through working with partners, suppliers and stakeholders.

The NCC will continue to use leading practices in visible areas of high environmental importance, including planning, education, landscaping, transportation and buildings. Six of the seven objectives for this action area have been met.

BUILDINGS

Over the summer of 2015, a new day shelter was built at Renaud Lake, as part of the NCC's major work program in Gatineau Park. This new building was constructed to provide the proper orientation for passive solar heating. The high-performance building envelope keeps it warm in winter and cool in summer. Further, the shelter was built primarily from locally sourced wood.

In 2015–2016, renovation work began on the buildings at 3500 Carling Avenue (a 149-hectare property, including 121 hectares owned by the NCC and leased to Public Services and Procurement Canada), which will be used to accommodate National Defence personnel. Not only will the renovated buildings meet LEED® Silver standards, but their design will also limit the risk of bird–building collisions by mitigating the reflectiveness of 13,600 m^2 of windows. The renovation also includes the implementation of a wildlife protocol, ensuring better cohabitation with the natural environment surrounding the property.

GARDEN OF THE PROVINCES AND TERRITORIES

The new landscaping of the Garden of the Provinces and Territories provides a nationally important floral experience consistent with the vision of the NCC's Capital Floral Program and environmental best practices. Based on the design principles of the New Perennial Movement, the garden consists of over 10,000 plants representing indigenous species of Canada's provinces and territories. Its designers paired thick-stemmed, long-blooming perennials with ornamental annuals to prolong the visitor experience through to the fall and winter. A high-tech irrigation system ensures efficient water consumption that can adapt to the horticultural needs of the various plant species.

CAPITAL PLANNING

The NCC is currently developing the Ottawa River North Shore Riverfront Parks Improvement Plan and another plan for the Sir John A. Macdonald Parkway riverfront linear park. These two development plans on federal lands along the shores of the Ottawa River will promote contact with nature, culture, and the beauty and spirit of this mighty river. They include the creation or rehabilitation of aquatic habitats along the shore. Various proposals have been made for various ways to animate public spaces, while protecting the important natural and wooded environments of the area. The creation of a pleasant, lively Capital Region is central to the objective of both plans, which will highlight a green and blue capital, while protecting the environmental integrity of the site. The Board of Directors is expected to approve both plans in the 2016–2017 fiscal year.

Over the past year, the NCC continued to work on developing the Capital Illumination Plan. This plan aims to transform lighting in the Capital core area into a picturesque and memorable nighttime landscape, while improving environmental sustainability and public safety. It will advance light-based technologies geared to reducing overall energy consumption. The plan is being developed in collaboration with several partners, experts and the public, who were asked to submit ideas at a workshop held in March 2015 at the Capital Urbanism Lab. The Board of Directors is expected to approve the plan in the 2016–2017 fiscal year.

WATER QUALITY MANAGEMENT

The NCC continues to implement best practices for water quality management in projects and activities taking place on NCC land. The following three examples of projects carried out in 2015–2016 include measures for the responsible management of water quality.

- The University of Ottawa conducted a research project at Watts Creek to study the correlation between sediment erodibility and the stability of the creek, and to determine the use of available habitat by fish populations. The study showed that the creek's instability adversely affects fish.
- In partnership with the Ontario Ministry of the Environment and Climate Change and the Rideau Valley Conservation Authority, the NCC has required that the City of Ottawa include aquatic habitat and water quality protection in its plans to build a park-and-ride parking lot near Stillwater Creek.
- The NCC launched a review of its rainwater management policy. This policy, which applies to all planning projects and measures affecting rainwater, encourages intergovernmental watershed planning projects. Once the review is complete, it will guide decision making to ensure responsible rainwater management.

The NCC is also responsible for overseeing the quality of water for drinking and swimming at a number of locations on its lands. The NCC manages six beaches in Gatineau Park and one at Leamy Lake Park. There were no beach closures in Gatineau Park in the summer of 2015. However, the beach at Leamy Lake Park was closed twice in 2015 due to bacteriological contamination of the water, with fecal coliform levels exceeding the standards in effect.

SUSTAINABLE AGRICULTURE

In 2015, the NCC completed a shoreline stabilization project on farmland along the Rideau River to reduce erosion and conserve soils, farmland and the shoreline environment. A nesting habitat was also created for the bobolink, in partnership with a farmer in the western Greenbelt, to implement mitigation and compensation measures designed to protect this species, which is listed as endangered under Ontario legislation.

The NCC continues to work with farmland tenants and various conservation organizations to help improve soil and water quality. In cooperation with project developers, it implements guidelines for minimizing and mitigating the impact of infrastructure construction or repair projects on farmland. These guidelines include best practices and establish remediation and restoration measures in order to conserve soils and protect farmland integrity and productivity.

Cyclist on Sussex Drive.

ACTIVE AND ALTERNATIVE MODES OF TRANSPORTATION

Cycling in Canada's Capital Region contributes to the reduction of air pollution and greenhouse gas emissions. The NCC is responsible for the Capital Pathway network, which includes over 300 kilometres of multi-use paths linking natural areas, parks, gardens, museums and attractions in Canada's Capital Region. As one of the most extensive recreational pathway networks in North America, it helps make the region a sustainable urban area. From April 1 to November 30, 2015, over 1.8 million bicycle trips were recorded at five locations within the network.

The NCC continues to maintain its pathway network, which represents as a major asset in the region. The following accomplishments were made in 2015–2016.

- A new 1.6-kilometre section of the Capital Pathway was built in the Greenbelt between Merivale Road and Woodroffe Avenue. This section is part of a 56-kilometre trail development designed to provide a recreational and educational experience throughout the entire length of the Greenbelt.

- In keeping with ongoing efforts to improve the comfort and safety of pedestrians and cyclists crossing the National Capital Region's parkways, the NCC joined with the City of Ottawa to make major improvements at the crossing at Colonel By Drive and Clegg Street. This is the third crossing to undergo improvement work, following the pedestrian crossing study in the Rideau Canal corridor, which was completed in 2011 with input by community associations, local interest groups and representatives of Carleton University and the University of Ottawa.

A Fall Rhapsody shuttle bus pilot project was also introduced on the Gatineau Park parkway network. A total of 8,000 trips were made using this free shuttle service. Departing from Camp Fortune, the shuttle service provided about 4,000 visitors with easier access to the Park's lookouts to enjoy the fall colours. Guide-interpreters were also on hand to highlight the Park's history and natural resources to passengers along the way.

ENVIRONMENTAL EDUCATION

In 2015–2016, the NCC and Friends of Gatineau Park mounted a range of activities for the general public and school groups to raise awareness about the importance of protecting the Park's biodiversity.

Approximately 2,700 people (school groups and members of the general public) took part in theme-based programs at the Gatineau Park Visitor Centre, with a special focus on the Park's conservation role and rich ecosystems. Over 500 new Canadians discovered the charms of winter through a snowshoeing program for immigrants. During the summer, some 1,750 visitors took part in talks, programs, hikes and other activities at the Philippe Lake campground.

The NCC also conducted awareness activities at schools in the region. Some 700 students took part in a classroom program.

In the fall of 2015, for the second year in a row, Fall Rhapsody offered visitors a chance to explore less-travelled areas of the Park during this peak period. In cooperation with the municipalities of Chelsea and Pontiac, activities were held in Meech Creek Valley, at Philippe Lake and at Luskville Falls. At least 4,000 participants took part, with the heaviest turnout at Luskville Falls during the three days of activities.

For the past several years, the NCC has been working to restore sand dunes in Pinhey Forest, which date back roughly 10,000 years. Biodiversity Conservancy International recognized the effort as a true success. Close to 1,000 local students and many volunteers visited the site in 2015 to learn more about the biodiversity of this outstanding environment and to lend a hand in restoring it.

ENVIRONMENTAL EFFECTS ANALYSIS

In accordance with section 67 of the *Canadian Environmental Assessment Act*, 2012 (CEAA 2012), the NCC assessed the environmental effects of approximately 107 projects in 2015–2016, to determine if they were likely to result in significant adverse environmental effects. The level of assessment varied according to project scope and level of environmental risk. No project evaluated under section 67 of CEAA 2012 was deemed likely to cause significant adverse environmental effects, once the proposed mitigation measures were implemented. Further, none of the projects proposed on NCC lands was considered to be a designated project under sections 13 and 14 of the Act.

In 2015–2016, the NCC worked on developing new tools to facilitate the assessment of projects with effective, established mitigation measures.

The NCC also evaluated a number of projects in collaboration with other federal authorities. For example, the NCC worked with Parks Canada, Public Services and Procurement Canada, and the National Arts Centre to analyze the environmental effects of the National Arts Centre's architectural renovation project.

PROJECTS PLANNED FOR THE 2016–2017 FISCAL YEAR

As part of plans to enlarge Old Richmond Road and West Hunt Club Road, the City of Ottawa, in collaboration with the NCC, will undertake field studies in the summer of 2016 to develop an inventory of wildlife migration corridors and special-status species present in the area. The findings of these studies will ensure that these plans incorporate environmental and wildlife protection best practices in the Stony Swamp area of the Greenbelt.

The construction of 7 Clarence Street, planned for 2016, will comply with LEED® standards. Similar to the renovation project at 519 Sussex Drive, this new project will include bird-friendly building design. Aware that thousands of birds die after colliding with buildings in the National Capital Region, the NCC would like to apply existing standards, and develop design guidelines for reducing such collisions.

The NCC will be developing a sustainable agriculture and food strategy in the 2016–2017 fiscal year, which will integrate local farmers with communities and businesses to shorten the food supply chain. It will also encourage the use of best practices in farm management to help reduce the environmental footprint that results from food production and consumption.

Environmental educational activity in Gatineau Park.

In certain specific cases, the NCC must implement compensatory measures to ensure that projects on its lands remain free of any significant detrimental environmental effects. The following are two examples of compensation measures to be taken in the 2016–2017 fiscal year.

- To offset the loss of ecological functions related to the replacement of the Leamy Creek bridge (Gatineau Boom), a plan has been developed to close and restore an unofficial trail in the high-value natural environment of Leamy Lake in order to return the site to its natural condition.
- Work undertaken in the fall of 2015 to replace two culverts on Chemin du Lac-Meech and Notch Road impaired the ecological function of wetlands located on NCC property. Compensatory measures will consist of rehabilitating some of the existing wetlands and creating wildlife habitat in the affected wetlands by developing structures for amphibians and reptiles, and installing bat houses. The Municipality of Chelsea, in cooperation with the NCC, will also implement a monitoring program.

In partnership with the Rideau Valley Conservation Authority, the NCC will restore an aquatic habitat located along Black Rapids Creek in the Greenbelt. This action, considered an important element of the Greenbelt Master Plan, will restore an upstream wetland southeast of Woodroffe Avenue. Various habitats will be created to enhance the diversity of plants and wildlife.

WETLAND DEVELOPMENT AT REMIC RAPIDS

In 2015, the NCC and the Rideau Valley Conservation Authority joined forces in a 1,500 m^2 wetland development project located near Remic Rapids in the Ottawa River. Some 35 volunteers spent 140 hours cleaning and developing the site and planting 385 shrubs and trees. Various structures of benefit to wildlife were installed (root piles, logs and sandy nesting areas). The site will soon be full of life, providing a habitat for plants, turtles, wildfowl, amphibians and aquatic insects. In addition to the benefits to local biodiversity, the new development will provide an extremely rewarding experience for visitors to this scenic location. Future monitoring work will ensure the success of the new development.

4.5 Combatting climate change

The federal government recognizes climate change as an ongoing and serious challenge to Canada and the world, given its impact on the environment, economy and society. The current and potential effects of climate change include more frequent violent weather phenomena, as well as a great risk to ecosystems, infrastructure and countless communities.

The NCC aims to reduce the greenhouse gas emissions generated by its activities. Although reducing its carbon footprint by 30 percent by 2017 seems an ambitious target, the NCC hopes to make measureable progress in this direction over the next few years.

NCC GREENHOUSE GAS INVENTORY

The NCC measured the amount of greenhouse gas emissions generated by its activities in 2011–2012.The inventory was updated in 2015–2016 to account for certain emissions that had been omitted. The breakdown of the emissions by scope is provided in Table 5.

TABLE 5: TOTAL EMISSIONS BY SCOPE, 2011–2012

	Emissions in 2011–2012 (tonnes of CO_2 equivalent)	Share of emissions (percentage)
Scope 1 (direct greenhouse gas emissions)	1,682.20	60
Scope 2 (indirect greenhouse gas emissions from the consumption of electricity)	1,138.57	40
Total	**2,820.77**	**100**

The majority of Scope 1 emissions result from natural gas use in buildings that are occupied by the NCC. The bulk of Scope 2 emissions derive from the use of electricity in buildings that only the NCC occupies, together with electricity consumed on NCC lands, for lighting in parks and along parkways.

Based on this updated inventory, the NCC has determined that a reduction target of 846 tonnes of carbon dioxide (CO_2) equivalent would amount to 30 percent of total emissions generated in 2011–2012 (2,820.77 tonnes of CO_2 equivalent).

ENERGY EFFICIENCY

Under its greening strategy for the Greenbelt's homes, the NCC conducts energy audits of its residential buildings when they are vacated. In all, five energy audits were completed in 2015–2016. They measured the energy consumption and energy efficiency of the buildings studied to determine what action could be taken to reduce their environmental footprint. When possible, renovation work is performed before new tenants move in. In this way, the NCC hopes to reduce the greenhouse gas emitted by its portfolio of residential buildings.

VEHICLE FLEET

In 2015–2016, the NCC purchased 15 new vehicles to replace others at the end of their life cycle. These new vehicles make up 34 percent of the NCC fleet of 44 vehicles. With a view to reducing its greenhouse gas emissions, the NCC selected new vehicles that comply with the Treasury Board of Canada Secretariat's guide to fleet management of light-duty vehicles and executive vehicles, as well as Public Services and Procurement Canada's *Government Motor Vehicle Ordering Guide*.

PROJECTS PLANNED FOR THE 2016–2017 FISCAL YEAR

The NCC will continue its efforts to reduce the greenhouse gas emissions generated by its activities. At Rideau Hall, for example, the replacement of the existing centralized steam boiler heating system with a decentralized hot water system will achieve a reduction of approximately 296 tonnes of CO_2 equivalent. This will reduce the NCC's total emissions by 9.5 percent compared with 2011–2012.

The NCC's greenhouse gas inventory will be recalculated to evaluate activities that took place in the 2015–2016 fiscal year. This inventory will comply with the Federal Greenhouse Gas Tracking Protocol: A Common Standard for Federal Operations. It will let the NCC know where it stands in relation to its greenhouse gas emission reduction target and pursue its reduction efforts, while implementing measures specified in the Federal Sustainable Development Strategy 2016–2019.

The NCC will also examine the possibility of updating the 2005 study Climate Change: A Long-Term Strategic Issue for the NCC — Implications for Recreation–Tourism Business Lines. This new study will focus on progress and measures made to adapt to climate change.

6. Conclusion

This seventh report outlines the environmental progress made in 2015–2016. The NCC constantly strives for greater positive environmental impact. It also ensures compliance with the government's regulatory requirements.

A few of the objectives of the environmental strategy remain ambitious, and pose significant challenges. The renewal of this strategy will provide an opportunity to review and set new targets and new objectives consistent with the NCC's mandate and the priorities of the Federal Sustainable Development Strategy. The renewed environmental strategy will be implemented on April 1, 2018.

While ever mindful of its duty in relation to the stewardship of federal lands in Canada's Capital Region, the NCC recognizes that the work involved in making progress on environmental issues also requires a commitment by other partners and the general public, who play an important role in creating a dynamic conducive to establishing a greener capital.

The NCC remains committed to achieving a delicate balance between public access, the protection of plants and wildlife, and sound management of the natural and built environment.

Red-winged blackbird

7. Glossary

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

Carbon dioxide (CO_2): A greenhouse gas produced in part by human activities, whose emissions are largely responsible for climate change.

Carbon footprint: The total set of carbon-containing emissions (mainly CO_2) caused directly and indirectly by an individual, organization, event or product.

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.

Critical habitat: The habitat that is necessary for the survival of a species at risk and that is identified under law in a recovery strategy or action plan for that species.

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

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.

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.

Greenhouse gas: Emissions of 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.

Greenhouse Gas Protocol: The most widely used international standard, the Greenhouse Gas Protocol is an accounting tool for understanding, quantifying and reporting corporate greenhouse gas emissions.

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.

IUCN (International Union for the Conservation of Nature) category: Internationally recognized designations that classify protected areas according to their management objectives and take into account the following aspects: wilderness level; scientific, spiritual, educational and recreational opportunities; significant cultural, geological or natural features; species and habitat management; and sustainable use of natural resources.

LEED® (Leadership in Energy and Environmental Design): A third-party certification program administered by the Canada Green Building Council for the design, construction and operation of high-performance green buildings.

Recovery strategy: A detailed plan that outlines short-term objectives and long-term goals for protecting and recovering a specific species at risk.

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

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.

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

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

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