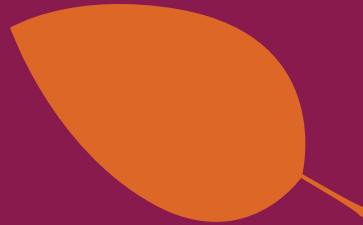


**BUILDING A
GREENER
CAPITAL**



National Capital Commission

Annual Environment Report

2014-2015



NATIONAL CAPITAL COMMISSION

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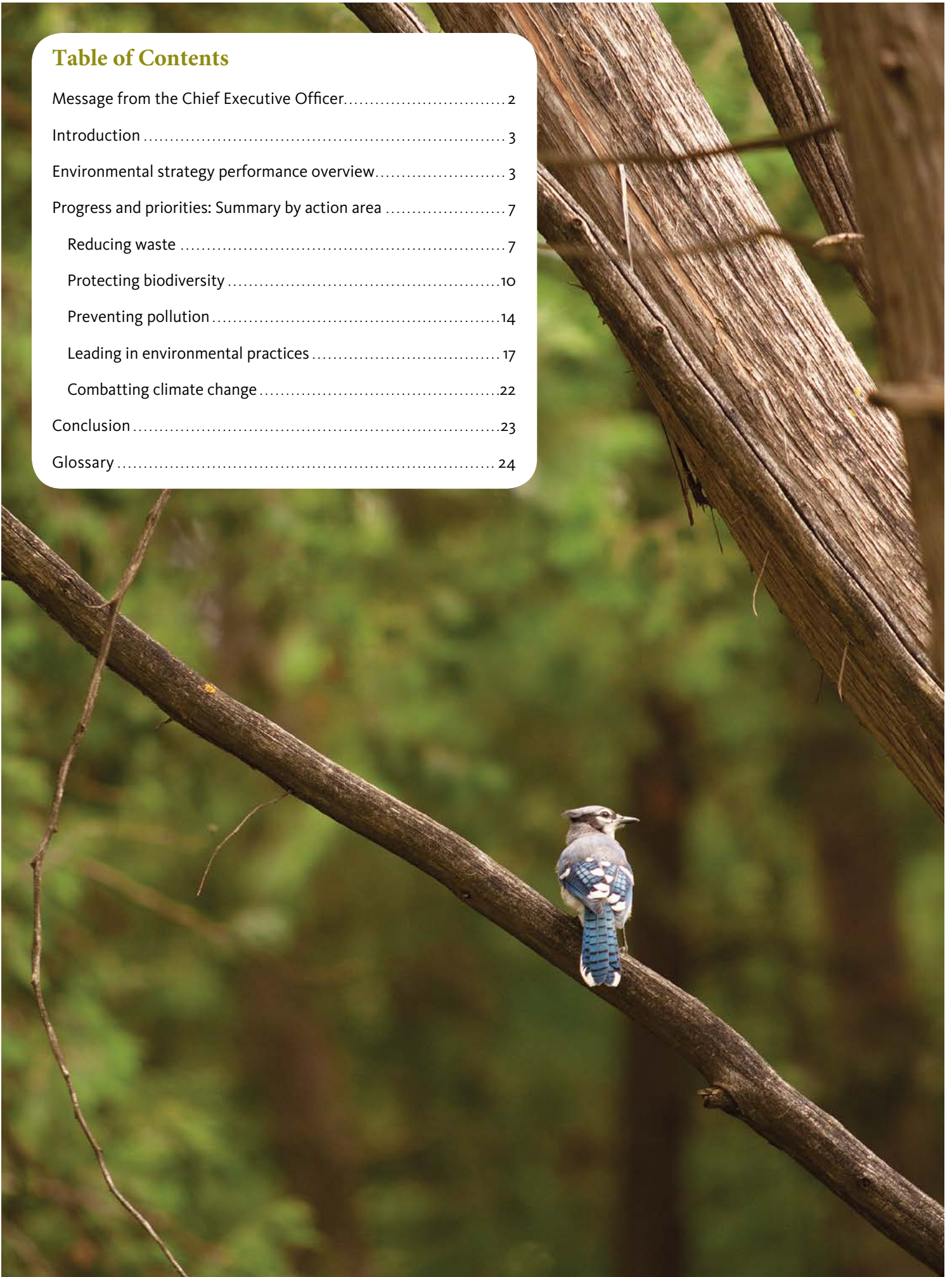
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1. Message from the Chief Executive Officer

I am pleased to present the National Capital Commission's (NCC) Environment Report for the 2014–2015 fiscal year. This is the sixth annual report since the launch of the NCC's environmental strategy in June 2009.

This report underscores the NCC's commitment to building a greener capital. It reports on the NCC's compliance requirements, as well as environmental risks and issues that the corporation has managed, and includes many examples of the progress achieved over the past fiscal year.

For example, this year, all recyclable material collected during the skating season on the Rideau Canal was sorted and treated by a firm specializing in waste management. This made it possible to achieve a significant reduction in the amount of waste sent to landfill sites. We also organized public forums at the Capital Urbanism Lab on topics such as green urbanism and invasive species. In addition, we continued our efforts to improve the energy efficiency of our infrastructure to reduce the environmental footprint of our operations.

As chief executive officer, I would like to thank our staff, stakeholders and partners who have contributed to building a greener capital. We will continue to support collaboration and innovation in order to ensure efficient, rigorous and responsible environmental management.



Dr. Mark Kristmanson
Chief Executive Officer

2. Introduction

In June 2009, the National Capital Commission (NCC) launched its first comprehensive environmental strategy, known as *Building a Greener Capital*. This plan mapped out five key action areas, each with one priority objective and a focused set of secondary targets.

During the 2013–2014 fiscal year, the environmental strategy was updated, and subsequently approved by the NCC's Board of Directors in November 2013. The revision reflects the NCC's mandate and the priorities of the Federal Sustainable Development Strategy.

This annual report provides the NCC's Board of Directors and the public with a detailed account of the corporation's environmental performance for the 2014–2015 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.

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











BUILDING A GREENER CAPITAL ACTION AREAS:


- ✓ Reduce waste
- ✓ Protect biodiversity
- ✓ Prevent pollution
- ✓ Lead in environmental practices
- ✓ Combat climate change


3. Environmental strategy performance overview


The following chart summarizes the NCC's progress toward meeting the objectives of its environmental strategy over the past five years. It highlights accomplishments and provides information on obstacles or challenges that the NCC faces. The objectives and areas for action have been changed from previous versions of this report, based on the 2013 revisions to the corporate environmental strategy.

SUMMARY OF PERFORMANCE ON ENVIRONMENTAL STRATEGY

OBJECTIVES	HIGHLIGHTS OF ACCOMPLISHMENTS FOR 2014–2015	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 14.3 tonnes of waste generated on the Rideau Canal Skateway in 2014–2015 was sent to landfill sites. However, 0.24 tonnes of waste was generated per skating day in 2014–2015, which represents over half of what was generated in 2009–2010.	Given that the length of the Rideau Canal Skateway season varies from year to year, the performance indicator should be revised to calculate the amount of waste sent to landfill sites per day. The objective must be revised.	 <i>See page 7</i>
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 is currently working to meet this objective by adding new clauses to the event partnership agreements for 2015–2016.		
The NCC will develop green procurement guidelines for implementation in 2010, which will include low waste as an important criterion.	Green procurement guidelines have been implemented and are accessible to all NCC staff via the intranet.		
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 took place on NCC lands over the 2014–2015 fiscal year. As a result, at least 92 percent of material was diverted from landfill.		 <i>See page 8</i>
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.	In 2014–2015, 11 high-value ecosystems on urban lands in the region have been designated in accordance with IUCN categories following the adoption of the Capital Urban Lands Plan. All high-value NCC ecosystems and habitats have now been designated using 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 NCC provided feedback on eight recovery programs and six species at risk management plans developed by Environment Canada. Environment Canada has developed a recovery plan for the least bittern, and the NCC is protecting the four critical habitats of this species identified on lands in Gatineau Park.		 <i>See page 11</i>
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 is continuing its efforts to protect biodiversity by monitoring the health of ecosystems and natural habitats, managing invasive species, protecting species at risk, and organizing events with its partners.		 <i>See pages 10 and 11</i>
The NCC will reduce the amount of NCC urban land infested by invasive plant species by 10 percent by 2014.	The NCC is continuing to acquire knowledge about the extent of aggressive invasive alien plant species on NCC lands. Specific measures to control invasive species, such as cutting and physical removal, are being undertaken, and an action plan will be implemented in 2014–2015.	When the NCC launched its environmental strategy, the extent of urban land infested was unclear. Studies have clarified the extent of the problem, and confirmed that this reduction objective is ambitious. The objective must be revised.	 <i>See page 12</i>


*  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 2014–2015	KEY CHALLENGES	CUMULATIVE STATUS*
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Preventing pollution


All contaminated sites on NCC lands will be secured by 2017.	Two sites have been remediated and 116 contaminated sites have been secured to date. As of spring 2015, 152 out of 268 sites are considered contaminated, but not secure. An additional 367 other sites require further assessment.	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 14
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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 15
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The NCC will adopt a policy to eliminate the use of pesticides for cosmetic purposes by 2010.	The NCC continues to track the use of pesticides on NCC lands.		
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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.	The NCC did not construct any new buildings over 250 square metres, nor did it complete any major building renovations. The Dome Building restoration project obtained LEED® Silver certification.		 See page 17
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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.		
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The NCC will integrate environmental education into all NCC activities, where appropriate.	The Capital Urbanism Lab provides a forum for discussing a variety of topics, including the environment.		 See page 21
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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.		
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The NCC will provide and promote environmentally sustainable transportation alternatives.	Five new parking lots have been added under the Park and Cycle program, for a total of 15.		 See page 18
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The NCC will implement best practices for water quality management in projects and activities taking place on NCC land, and will encourage its partners and stakeholders to do the same.	The NCC continues to pursue the Meech Lake and Stillwater Creek shoreline rehabilitation projects.		 See pages 17 and 18
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In carrying out its planning mandate, the NCC will place priority on sustainable development approaches.	The Capital Urban Lands Plan was approved in April 2015. This plan will have positive effects on the physical, cultural and social environment.		 See page 18
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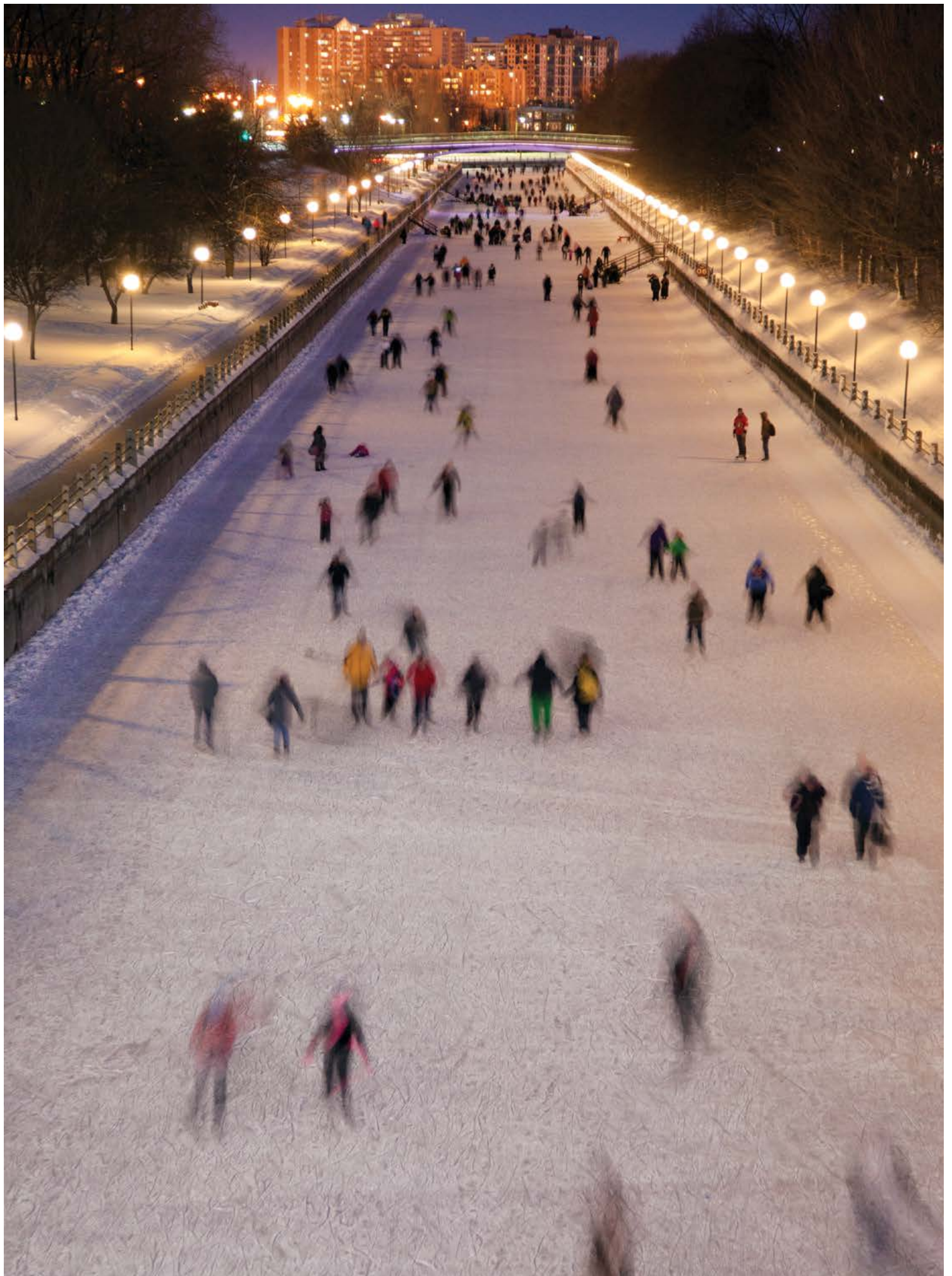
Combatting climate change

The NCC will reduce its overall carbon footprint by 30 percent by 2017, based on a 2011–2012 baseline.	Mechanical systems were upgraded and energy consumption audited at the Rideau Hall stables and main building.	This is an ambitious objective which must be revised to align with the Federal Sustainable Development Strategy.	 See page 22
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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.		
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The NCC will continue to broaden its knowledge of the effects of climate change on its operations.	No accomplishments in 2014–2015.		
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*  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 is pursuing its waste reduction initiatives and, as stated in the Federal Sustainable Development Strategy, its goal is to reduce the waste generated and lower the environmental impacts of assets throughout their life cycle.

RIDEAU CANAL SKATEWAY

The NCC continues to improve the waste management system on the Rideau Canal Skateway. This year, all recyclables were properly sorted and treated. This new approach was made possible by hiring a firm specializing in waste management for events.

The City of Ottawa also continued its support. It provided bins to collect organic waste during the Rideau Canal skating season. It also collected and processed compostable materials.

Table 1 indicates the total amount of waste, as well as recyclable and compostable material collected, during the Rideau Canal Skateway skating season from 2010 to 2015.

TABLE 1: RIDEAU CANAL SKATEWAY WASTE COLLECTION RESULTS, 2010–2015¹

MEASURED RESULTS	2010	2011	2012	2013	2014	2015
Total material collected	24.1	33.1	14.1	23.4	22.0	22.5
Total amount recycled	1.9	2.3	2.8	2.2	1.6	4.5
Total amount composted	0	0	1	1.7	— ²	3.7
Total sent to landfill	22.2	30.7	10.3	19.5	20.4	14.3

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 for the total amount composted to be determined.

As Table 1 indicates, 14.3 tonnes of waste associated with the 2015 Rideau Canal skating season was sent to landfill sites, which reflects a significant reduction in waste compared with previous years. The new project for sorting recyclable material made it possible to divert 4.5 tonnes of material from landfill sites. In all, the City of Ottawa collected and processed 3.7 tonnes of compostable material. These two results are also a considerable improvement over previous years.

The amount of waste generated is directly linked to the number of skating days. Table 2 shows that the amount of waste sent to landfill per skating day decreased again, for the third consecutive year. Further, a comparison of 2011 and 2014 data against 2015 data, which reflect a similar length of skating season, indicates that the NCC made improvements that cut the amount of waste sent to landfill per skating day by more than half.

Staff from the NCC and City of Ottawa, as well as contractors worked together to develop and implement effective waste management programs for the events.

TABLE 2: AMOUNT OF WASTE SENT TO LANDFILL, BY SKATING DAY

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

* Note: Figures in metric tonnes.

RIDEAU HALL CHARACTERIZATION

In December 2014, a waste audit was performed at Rideau Hall. The waste audit provided information about waste management practices, diversion and contamination rates, and recommendations for improvements. The results obtained at Rideau Hall indicate that 272.10 kg of waste was generated and sent to landfill sites for the length of the study, which was two weeks. During the same period, 1,317.15 kg of material was recycled or composted. This includes all waste material generated by Rideau Hall operations, including events and greenhouses. This means that the NCC and its partners at the Office of the Secretary to the Governor General and the RCMP diverted 83 percent of waste from landfill. All of the study's recommendations will be evaluated for implementation, especially in order to raise user awareness.

GREEN DEMOLITION PRACTICES

Green demolition involves dismantling a building with the goal of diverting at least 90 percent of the materials from landfill. Materials are reused by non-governmental organizations, such as Habitat for Humanity, which collect salvaged items such as windows or doors in order to use them in building affordable housing.

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 2014–2015 fiscal year, the NCC undertook five demolition projects that implemented green demolition practices. In all, 14 buildings were taken down, and at least a 92 percent overall diversion rate was achieved. 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 2015–2016 FISCAL YEAR

As part of waste management for the Rideau Canal Skateway, the NCC will maintain the public recycling and composting program. It will continue to improve signage and visibility at the waste collection stations, and to work with the City of Ottawa and contractors to continue efforts to reduce the amount of waste sent to landfill.

In 2015–2016, the NCC will include a list of responsible waste management practices in agreements for events on its lands. In this way, the NCC aims to encourage event promoters to reduce the amount of waste sent to landfill sites.



4.2 Protecting biodiversity

Protecting species and their habitats helps preserve biodiversity — the variety of plants, animals and other life in Canada. The NCC’s objectives, like those set out in the Federal Sustainable Development Strategy, aim to protect species at risk, migratory birds, ecosystems and habitats, and to control invasive alien species.

ACQUISITION OF CONSERVATION LANDS

This year, the NCC acquired approximately 24 hectares of land in Gatineau Park. The primary purpose of these land acquisitions is to conserve and protect biodiversity. These lands are adjacent to a conservation area and directly linked to an ecological corridor, or located inside a Gatineau Park ecosystem.

ACTION PLAN FOR THE PROTECTION OF ECOSYSTEMS AND NATURAL HABITATS

The NCC continued to implement the priority recommendations of two studies: *Management Recommendations for the Valued Natural Ecosystems and Habitats of the Greenbelt and Urban Lands* and *Management Recommendations for the Valued Natural Ecosystems and Habitats of Gatineau Park*. Projects undertaken in the 2014–2015 fiscal year included those related to the protection and management of species at risk and their habitats, monitoring of invasive alien plants, management of Canada goose populations, and responsible management of Gatineau Park trails. Further, an ecological land classification project for high-value ecosystems and natural habitat on urban lands and in the western portion of the Greenbelt (major natural areas and natural links) was launched in the summer of 2014. The project is improving knowledge of plant distribution and plant communities, and clarifying the current understanding of vegetation, geology, geomorphology and climate communities. Once completed, this ecological land classification will contribute to a better understanding and management of natural resources.

SPECIES AT RISK

NCC lands provide habitat for an estimated 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.

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. Potential habitats have been mapped for 12 newly designated species at risk that are present in Gatineau Park. In addition, the above-mentioned ecological land classification project will help the NCC map the potential habitat of species at risk in the Greenbelt and on urban lands in the Capital Region. Mapping these potential and critical habitats will help to provide better protection for species at risk and new data for the environmental assessment of projects and events affecting NCC lands.

RECOVERY PLANS AND CRITICAL HABITATS FOR SPECIES AT RISK

The NCC continues to collaborate with Environment Canada on developing recovery program and management plan proposals for species at risk on NCC lands. As the primary steward of federal lands containing species at risk, the NCC was asked to comment on the following documents concerning species at risk on its lands:

- recovery programs (drafts or proposals) for the olive-sided flycatcher, common nighthawk, eastern whip-poor-will, Canada warbler, golden-winged warbler, western chorus frog, Blanding's turtle and least bittern;
- management plans (drafts or proposals for species of special concern mentioned in Schedule 1 of the *Species at Risk Act*) for the rusty blackbird, milk snake, monarch butterfly, common snapping turtle, peregrine falcon and pygmy pocket moss.

The least bittern recovery program was developed by Environment Canada. It targets four critical habitats in Gatineau Park: the marsh on Chemin du Lac-Curley; La Pêche Lake; North Onslow (southwest); and the Brown Lake marsh. These four critical habitats are already protected by the conservation status of Gatineau Park. As yet, no critical habitat has been identified for this species on the Ontario side.

Critical habitat protection and the objectives of the various recovery plans 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.

THE FOLLY BOG, A RARE HABITAT THAT CONTRIBUTES TO BIODIVERSITY IN GATINEAU PARK

The Folly Bog is one of the rare bogs in Gatineau Park, and has been identified as one of the Park's valued habitats. Through the NCC research incentive program, this little-known bog was the focus of a study in 2014 conducted by researchers from the Université de Montréal. The project determined that the bog habitat is characterized by plant diversity, and identified five plant species

that constituted the first entries in the Park's biodiversity database. However, the Folly Bog is under attack by an invasive alien shrub, the glossy buckthorn. The bog sediment is remarkably deep, and preserves a high-quality paleoenvironmental record. The researchers were able to reconstruct the history of plant life and frequency of forest fires over the past 12,000 years.

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. A total of 12 indicators are assessed on all NCC lands: the common loon, anurans, environmental fragmentation, invasive alien species, surface water quality, the riparian strip along recreational lakes, the impact of deer, breeding birds, forest health and productivity, infrastructure density, land cover changes and landscape connectivity, and plants at risk. In the summer of 2014, the invasive plant indicator was assessed

in the Greenbelt and on urban lands. Over the same period, the following indicators were monitored in Gatineau Park: environmental fragmentation, surface water quality, forest health and productivity, and infrastructure density. Analysis of the results of biodiversity indicator monitoring continues.

AGGRESSIVE INVASIVE ALIEN SPECIES

Invasive, non-native species represent a serious threat to environmental sustainability, due to their ability to rapidly spread across the landscape and impact native ecosystems.

In 2013, the NCC finalized the Aggressive Invasive Alien Species Management Strategy for National Capital Commission Lands to assess the extent of invasive species on its lands. Out of 2,241 hectares of NCC-owned urban land, 1,090 hectares are affected by the presence of aggressive invasive alien plant species. The 10 percent reduction target is thus 109 hectares of NCC urban land on which invasive plant species must be controlled.

The NCC is prioritizing the management of these invasive species by addressing areas where there is frequent interaction between the public and the environment. Specific areas are being targeted, where maintenance contractors are controlling buckthorn, dog-strangling vine and Norway maple. Aggressive invasive plant species require continuous management, and represent a major challenge, due to the capacity of these species to invade new areas quickly and to damage native species. Colonies of invasive species that could affect species at risk are monitored annually, and specific measures to control invasive species are also being implemented.

In the Greenbelt and on urban lands, two experimental projects are under way to test different methods of controlling dog-strangling vine.

FORUM ON INVASIVE SPECIES

In April 2015, the NCC organized a forum on invasive species. About 70 citizens participated, in order to learn more about regional issues around invasive species. Three guest speakers presented their research, as well as their projects for the control and elimination of invasive species, and various organizations held information kiosks presenting actions that the public can take to fight the spread of invasive species.

EMERALD ASH BORER

The emerald ash borer has been ravaging Ontario and Quebec since 2008. This alien insect has few predators, and ash trees are defenceless against its attacks. 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, 226 ash trees received preventive treatment with a systemic insecticide over the summer of 2014. In the same period, approximately 4,000 ash trees on urban lands and 1,000 in the Greenbelt were cut down. These trees posed a risk to public safety.

Ash trees losses on NCC lands have been significant, and have created a visual and environmental impact. To offset this loss and repopulate the urban forest, some 800 trees were planted in the spring of 2015.

PROJECTS PLANNED FOR THE 2015–2016 FISCAL YEAR

As part of the action plan to protect NCC ecosystems and natural habitats, in summer 2015, an ecological land classification project will focus on natural environments and links in the eastern portion of the Greenbelt.

The NCC will continue to monitor biodiversity indicators in the 2015–2016 fiscal year. The breeding bird indicator will be monitored in Gatineau Park. A report on the health of ecosystems and biodiversity will be produced in the 2015–2016 fiscal year.

Lastly, the following projects will continue under the action plan for protecting ecosystems and critical habitats and the action plan on invasive species:

- Development of a program for managing unofficial trails in Gatineau Park.
- Control and eradication of invasive species in fragile or historically important environments, such as at Rideau Hall.



4.3 Preventing pollution

The management of chemical substances is a federal government priority aimed at reducing the risk to Canadians, and the impact on human health and the environment. Implementation of the Federal Contaminated Sites Action Plan (FCSAP) and completion of the remediation and risk management activities at contaminated federal sites are part of the Federal Sustainable Development Strategy.

The NCC continues to advance toward meeting its pollution prevention objectives.

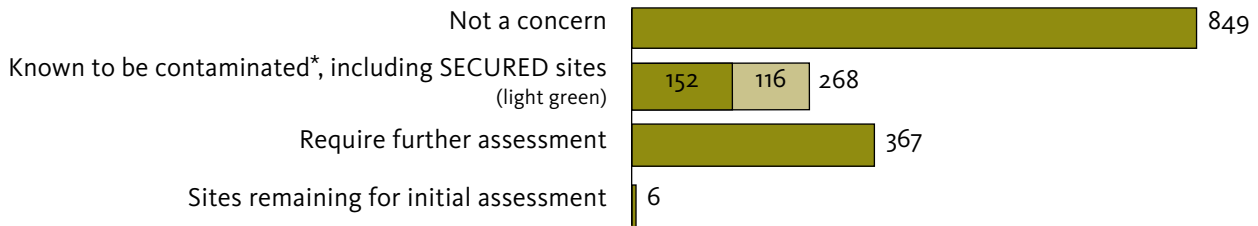
CONTAMINATED SITES

Contaminated sites owned by the NCC are a vestige of the region’s industrial past; they were contaminated over the past 100 years. 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 activities must be completed in a manner consistent with the designated use of the site.

In 2014–2015, the NCC conducted 77 high-priority assessments, and completed a large remediation project at LeBreton Flats in downtown Ottawa. Securing the existing contaminated sites will be a priority for the NCC again in 2015–2016. The NCC is also seeking approval for funding under FCSAP for 2016 to 2020. The FCSAP program provides significant funding that assists the NCC in securing its contaminated sites and reducing its environmental liability.

Active remediation took place at two sites in the past year. The remediation of a proposed commemorative site at LeBreton Flats was completed. A small amount of contaminated soil was removed from the property at 16 Tavette Street. At the NCC’s Bayview property, the decontamination options were analyzed to determine if the remediated area should be expanded.

FIGURE 1: STATUS OF CONTAMINATED SITES, 2014–2015



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

In 2014–2015, the NCC reported an unaudited liability cost associated with environmental liability of \$43.9 million, or \$19.7 million more than the value reported for the previous year (\$24.2 million). The increased environmental liability at the Bayview Street (\$11.3 million) and LeBreton (\$9.7 million) sites, as well as the decrease resulting from decontamination work at the site for the National Holocaust Monument (\$1.2 million) are the major adjustments.

The NCC also reported a decrease in contingent liability cost from \$477.8 million in 2013–2014 to \$466.7 million in the 2014–2015 fiscal year.

FUEL STORAGE TANKS

At the end of the 2014–2015 fiscal year, a total of 48 tanks on NCC lands were subject to the federal Petroleum and Allied Petroleum Products Storage Tanks Regulations. In 2014, the tanks were inspected in order to monitor the progress made toward meeting the compliance requirements.

Four of the 48 regulated storage tanks belong to the NCC. All NCC tanks are compliant. The other 44 on NCC lands are tenant-owned or under lease. The tenants in question have been informed that the tanks must comply with the federal Petroleum and Allied Petroleum Products Storage Tanks Regulations.

DESIGNATED SUBSTANCES

The NCC owns 1,222 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. In 2014–2015, 256 buildings were assessed, the majority of which were considered to be lower-priority buildings. In addition, annual asbestos assessments were performed in 18 buildings, and three asbestos abatement projects were carried out in 2014–2015.

To date, the NCC has determined that 321 buildings are secure, based on the results of designated substance surveys. Seventy percent of the buildings owned by the NCC, or 858 buildings, contained at least one designated substance. Only 86 require high-priority action, due to the presence of asbestos, mould or the poor condition of surfaces covered in lead paint.

TABLE 3: STATUS OF REVIEW OF NCC BUILDINGS FOR DESIGNATED SUBSTANCES, MARCH 31, 2015

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

* *Note:* The buildings scheduled for assessment in the next fiscal year are also included in the buildings remaining to be assessed.

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

Five small spills occurred on lands belonging to the NCC in 2014–2015, and they were cleaned up in accordance with standards. These spills did not pose a threat to the environment, and therefore did not have to be reported to Environment Canada.

WATER QUALITY

The NCC is 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 2014. However, the beach at Leamy Lake Park was closed twice for a total of six days, due to a high level of bacterial contamination in the water.

PROJECTS PLANNED FOR THE 2015–2016 FISCAL YEAR

Remediation work at known contaminated NCC sites will continue over the next few years. Priority buildings are also slated for inspection under the designated substances management program. Lastly, the 48 storage tanks on NCC land that are subject to the federal Petroleum and Allied Petroleum Products Storage Tanks Regulations will be inspected.

4.4 Leading in environmental practices

The Federal Sustainable Development Strategy prioritizes environmental best practices in four categories. It supports high-performance federal government green buildings and effective water management. It encourages the protection and restoration of aquatic ecosystems, and it aims to improve air quality by reducing air pollutants and promoting green transportation.

The following is a list of the NCC's accomplishments in the area of environmental best practices consistent with the priorities of the Federal Sustainable Development Strategy.

BUILDINGS

The NCC has made a commitment to apply LEED® standards in all new buildings more than 250 square metres in size and all major building renovations. In 2014–2015, no buildings were constructed, nor were any major renovations completed.

In August 2014, the NCC obtained LEED® Silver certification for the Dome Building restoration project. The Dome Building is a heritage structure located on the grounds of Rideau Hall. Restoration of this building will make it energy-efficient, improve its interior design, generate operational savings and ensure responsible water management. In February 2015, the project received the Award of Excellence, in the institutional category, from the 2012–2014 Ottawa Architectural Conservation Awards.

EARDLEY ESCARPMENT RESTORATION AND CONSERVATION

One priority project under the Gatineau Park Conservation Plan (2010) is to restore and conserve the Eardley Escarpment. This 35-kilometre-long escarpment is the site of the richest and most fragile ecosystem in the Park. It is used extensively by rock climbers, which causes erosion problems detrimental to plants and wildlife.

In December 2011, the NCC completed the Eardley Escarpment rock climbing site restoration and development plan. Work on this project focused on the five official rock climbing sites that will remain available to climbers. Since 2012, the following work has been started, and will reach completion in the 2015–2016 fiscal year: installation of devices for crossing waterways such as creeks, and for climbing steep slopes; erosion control; trail and climbing site closures; protective measures for species at risk; rehabilitation of sites where soil has been compacted; installation of information panels.

The project was carried out in partnership with the rock climbing community, specifically, the Alpine Club of Canada. Not only did the club's involvement in the project help protect the Eardley Escarpment's ecological integrity, it also ensures responsible rock climbing in a wild environment. An agreement was signed four years ago to have the Alpine Club manage rock climbing on the Eardley Escarpment.

MEECH LAKE SHORELINE REHABILITATION

In 2011, a study entitled "Gatineau Park Recreational Lake Shoreline Assessment and Restoration Plan" recommended the rehabilitation of several sections of the Meech Lake shoreline. Severe deterioration has been identified in 12 sections. In 2013, a consulting

firm conducted a more exhaustive analysis of these 12 deteriorated areas to recommend appropriate work to address the various issues.

In order to protect the lake's water quality, improve fish habitat and maintain public safety, rehabilitation work in the first two areas began in the fall of 2014: stabilization and revegetation of slopes adjacent to the shoreline, closure of access points and unofficial trails, and improvements to the infrastructure at lake access points. The first phase of work is scheduled for completion in summer 2015. The second phase is scheduled to begin in summer 2016.

LAND USE PLANNING

The NCC's Board of Directors approved the Capital Urban Lands Plan in April 2015. Implementation of the plan and its practices are expected to have a beneficial impact on the environment of urban lands in Canada's Capital Region. The Capital Urban Lands Plan encourages the creation of high-quality, meaningful places, specifically by improving, safeguarding and enriching the Capital's cultural heritage. It supports the network of urban green and blue spaces in the Capital, by protecting biodiversity and valued natural habitats, increasing urban vegetation cover, and conserving the picturesque elements of cultural landscapes. The plan also contributes to building a liveable Capital Region by promoting sustainable urban planning and active mobility.

SUSTAINABLE AGRICULTURE

In 2013, the NCC and the Rideau Valley Conservation Authority began a rehabilitation project on two kilometres of Stillwater Creek shoreline. The project was made possible through the tenant Abbott Point of Care, which is playing an important role. This pilot project, which is scheduled to end in the summer of 2015, aims to protect water quality in the creek by reducing shoreline erosion and planting trees and shrubs. A turtle nesting area will also be created. The NCC hopes to continue implementing this type of project on its farmlands over the next few years.

The NCC has also developed guidelines to address the impact on farmlands. These guidelines protect the agricultural environment when construction or repair of infrastructure is planned on its lands. They also include best practices, and identify remediation and rehabilitation measures for soil conservation and preservation of the integrity and productivity of these lands.

ACTIVE MOBILITY

To meet the needs of the local community, the NCC and City of Ottawa have improved the crossing at the intersection of the Queen Elizabeth Driveway and Fifth Avenue. This project has improved the comfort and safety of pedestrians and cyclists who use the region's parkways.

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. Cycling can play a vital role in reducing air pollution. The NCC continues to maintain its pathway network and promote it as a major asset in ensuring the urban region's sustainability.



In April 2013, a bicycle counter was installed on the Portage Bridge pathway. This device counts and displays in real time the number of cyclists who pass by. Between April 22 and October 31, 2013, 292,175 cyclists were counted and, from April 1 to October 31, 2014, there were 306,065.

The following are a few more examples of NCC projects completed in 2014–2015 to promote cycling in the region.

- **Bike share system:** The NCC has transferred its assets to Cyclehop LLP, as provided in its business plan. This company will take over operations in the 2015 season, and will increase the number of stations and bicycles in use.
- **Park and Cycle:** The NCC added five new parking lots for a total of 15.
- **Regional bike network map:** The third edition of the Ottawa–Gatineau cycling map was published in a new format, in collaboration with the City of Ottawa, Ville de Gatineau and regional tourism organizations.

ENVIRONMENTAL EDUCATION

In 2014–2015, 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 3,500 visitors participated in theme-based programs at the Visitor Centre, featuring the role of Park conservation and its abundant ecosystems. Over 500 new Canadians discovered winter's charms through a snowshoeing program for immigrants. At the Philippe Lake campground, some 1,250 visitors took part in various activities, programs, hikes and more.

In fall 2014, Fall Rhapsody provided an opportunity to test a different approach to nature interpretation. Visitors were invited to explore areas visited less often than the parkway sector, for special activities organized in collaboration with the municipalities of Chelsea, La Pêche and Pontiac. Several thousand visitors toured Meech Creek Valley, Philippe Lake and Luskville Falls, from late September to mid-October.

The NCC also provided environmental awareness activities to school groups. A classroom program was offered to schools in the region, with close to 1,500 students participating.

ENVIRONMENTAL EFFECTS ANALYSIS

In compliance with section 67 of the *Canadian Environmental Assessment Act, 2012* (CEAA 2012), the NCC completed the assessment of the environmental effects of approximately 89 projects in 2014–2015, to determine if they were likely to result in significant adverse environmental effects under section 67 of the Act. The level of assessment varied according to project scope and level of environmental risk. No project assessed under section 67 of the 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 2014–2015, the NCC implemented its new Environmental Assessment Policy.

Along with other federal authorities, the NCC also evaluated a number of projects. For example, the NCC worked with Public Works and Government Services Canada, Fisheries and Oceans Canada, and Transport Canada to analyze the environmental effects of the project involving the replacement of the hydro stations at the Chaudières Falls, on the Ontario side of the Ottawa River.

PROJECTS PLANNED FOR THE 2015–2016 FISCAL YEAR

Development plans for the Sir John A. Macdonald linear park and north shore of the Ottawa River will be finalized at the end of the 2015–2016 fiscal year. These plans will aim to animate public spaces along the river shoreline, while also ensuring the protection of important natural habitat. They will highlight the green and blue capital, while also protecting the ecological integrity of the sites. They will enrich quality of life, and provide improved access to the river and the Capital's green spaces.

Further, the NCC Parkways Policy will be developed over the 2015–2016 fiscal year. The parkways form a series of corridors that link the Capital's assets and picturesque sites, and foster a healthy, active lifestyle.

The UN General Assembly has declared 2015 the International Year of Soils. To mark the occasion, the NCC will pursue its sustainable agriculture projects, recognizing their importance to food security, biodiversity, sustainable development and the ability to be more resilient to climate change.

THE CAPITAL URBANISM LAB: A FORUM FOR DISCUSSION AND KNOWLEDGE SHARING

The Capital Urbanism Lab is a new NCC creation — a space for innovation and inspiration. Experts and the general public come together at the lab to discuss and share knowledge on various emerging topics related to the short- and long-term planning and stewardship of a capital: urban planning, design, natural and built heritage, conservation, sustainability, and the creation of public spaces.

In the past year, over 1,200 participants attended sessions at the Urbanism Lab. Discussions centred on green urbanism, winter cities, heritage conservation, capital illumination and design excellence. The NCC considers these gatherings important opportunities to consult stakeholders and the public. Other meetings are planned for next year.



4.5 Combatting climate change

The second cycle of the Federal Sustainable Development Strategy emphasizes reducing the environmental footprint of federal government operations by 17 percent below 2005 levels by 2020. In alignment with the strategy, the NCC is also committed to reducing the environmental footprint of its operations. The NCC recognizes that reducing its environmental footprint by 30 percent by 2017 is an ambitious target, because of the complexity of achieving substantial emission reductions. However, the corporation aims to achieve measureable progress in this area over the next few years.

The 2011–2012 reference level was 2,795 tonnes of carbon dioxide (CO₂) equivalent, and the reduction target is 838 tonnes.

ENERGY EFFICIENCY

The NCC is continuing to improve the energy efficiency of its infrastructure. Over the past three years, incandescent light bulbs used for lighting streets, pathways and parks have been replaced by LED lighting. The following locations are now illuminated by LED lights, which help minimize greenhouse gas emissions and lower energy costs: the pathway on the Queen Elizabeth Driveway between Laurier Avenue and Waverley Street; the pathway along the Ottawa River behind the Parliament Buildings; the underside of the Bank Street bridge; River Street North; the sidewalk on Confederation Boulevard between King Edward Avenue and the north side of St. Patrick Street.

During the 2014–2015 fiscal year, upgrades to mechanical systems and the energy audit of two buildings (the stables and main building) were completed at Rideau Hall. The upgrades will reduce greenhouse gas emissions at Rideau Hall and achieve annual energy savings of \$4,340 in the stables and \$14,010 in the main building.

The NCC Official Residences Division registered its building portfolio with the ENERGY STAR® Portfolio Manager. This online tool measures and monitors energy and water consumption, as well as greenhouse gas emissions. The Official Residences Division uses this program to compare the environmental performance of each building and the entire portfolio with annual baselines, national averages and other similar buildings. This information is then used to verify the effectiveness of strategies for reducing energy consumption, targeting potential problems and ineffective system practices, and determining investment priorities.

PROJECTS PLANNED FOR THE 2015–2016 FISCAL YEAR

The NCC will develop a greenhouse gas reduction plan for its operations, covering the 2015–2016 to 2018–2019 fiscal years. The plan will target specific emission reduction projects. The inventory of greenhouse gas emissions generated by NCC operations will be recalculated, once the plan's first targeted reduction projects have been completed.

The NCC will examine the possibility of updating the 2005 study entitled *Climate Change: A Long-Term Strategic Issue for the NCC — Implications for Recreation-Tourism Business Lines*.

5. Conclusion

The NCC continues to measure the environmental progress being made. As this report shows, the NCC is ensuring compliance with governmental regulatory requirements and environmental protection, while remaining at the forefront of environmental sustainability.

Given that the strategy's objectives remain consistent with the NCC's mandate and the priorities of the Federal Sustainable Development Strategy, the NCC will ensure the continuation of ongoing efforts to achieve measurable progress in meeting its objectives. Some performance indicators may be renewed to adjust overly ambitious objectives that involve major challenges.

The NCC remains committed to its role as chief steward of lands in Canada's Capital Region. It strives to achieve a delicate balance between public access, the protection of plants and wildlife, and sound management of the natural and built environment. Above all, the NCC will endeavour to ensure that Canada's Capital Region remains a source of pride and natural beauty for the enjoyment of all Canadians, now and in the future.



6. Glossary

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

Carbon dioxide (CO₂): 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 CO₂) 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 (N₂O), methane (CH₄) and especially carbon dioxide (CO₂) that accumulate in the atmosphere and act to retain atmospheric heat, thus contributing to climate change.

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.

