



8. SUSTAINABLE CAPITAL CARD

Bird safety

Collision with buildings is the second-most common human-related cause of bird mortality. Under provincial and federal laws, it is the responsibility of building owners to ensure that their buildings do not harm or kill birds.

The National Capital Commission (NCC) manages federal lands in the National Capital Region and has a vast real estate portfolio. For this reason, they have a responsibility to address the issue of bird collisions. As part of the Sustainable Development Strategy, the NCC has created Bird-Safe Design Guidelines.

Context

Urban development puts more and more pressure on wildlife habitats. In Canada, it is estimated that collisions with glass structures kill 16 to 42 million birds a year.

Birds are unable to recognize glass as an impermeable surface. As a result, birds may strike windows when they try to reach the habitats on the other side of the glass or habitats reflected in it. Light from buildings and outdoor light fixtures also poses a problem, as it can attract birds into urban areas, increasing the likelihood of bird-building collisions.

Bird-Safe Design Guidelines

The NCC's Bird-Safe Design Guidelines aim to reduce the risk of bird collisions. They offer best practices for building, lighting, and landscape design on federal lands in the National Capital Region. They also address the issue of bird-safe design for heritage buildings and sites.

These guidelines were developed with input from FLAP Canada and Safe Wings Ottawa. They are in line with the Canadian Standards Association's Bird-Friendly Building Design standard.

Student task

Examine the Giant Floor Map and place a coloured pylon on areas where you feel the Bird-Safe Design Guidelines play an important role.



8. SUSTAINABLE CAPITAL CARD

Adapting to climate change

Our climate is changing. To protect the legacy of the National Capital Region, it is important to understand the types of changes coming our way and how they will affect the lives of those living in the National Capital Region.

The NCC's climate change adaptation project

This three-year project aims to ensure that the National Capital Commission's (NCC) work stands the test of time and climate change. It takes into account everything the NCC manages, from green space to buildings, and looks at how we use them. This project is ongoing, and will:

- raise awareness of climate change risks in the region;
- allow planning for the future; and
- help prioritize actions to increase the region's resilience for the benefit of all Canadians.

The climate change adaptation project consists of three phases: a climate projections study, a vulnerability and risk assessment, and the development of an adaptation plan.

Phase 1: Climate Projections Study

The study concluded that, by the 2050s, under a high-emission scenario, we can expect to see many changes in the National Capital Region, such as: earlier springs, hotter summers, later autumns, shorter winters with less snow and fewer cold days, and a warmer and wetter climate.

Phase 2: Vulnerability and Risk Assessment

This phase looks at how climate change projections will affect NCC assets, operations, and programs. During this phase, the NCC will define potential impacts, determine the organization's vulnerability to them, and identify the impacts that pose the greatest risk. For example, the floods of 2017 and 2019 had significant impacts on the multi-use pathway network. The tornados in 2018 affected trees on NCC-managed lands in Ottawa and Gatineau. And the extreme heat episodes in summer 2021 affected crops in the greenbelt and increased energy demand to cool down buildings. Climate change will also continue to negatively affect popular programs such as cross-country skiing in Gatineau Park and skating on the Rideau Canal.

Phase 3: The Adaptation Plan

In this final phase of the project, the NCC will develop a 10-year climate adaptation plan. The plan will include actions to manage the greatest climate risks, as well as the risks shared by the NCC, the City of Ottawa, and the Ville de Gatineau.

Student task

Review the various phases and use coloured pylons to highlight areas mentioned or areas you feel will be at risk as our climate continues to change.



8. SUSTAINABLE CAPITAL CARD

Protecting Forests

The National Capital Commission (NCC) has developed a forest strategy, which guides how the NCC manages forests and trees on its lands. This strategy has a strong emphasis on trees and forests in urban areas, but also looks at trees and forests in natural areas like the greenbelt and Gatineau Park. The strategy provides a blueprint to make forests more diverse, connected, and resilient.

The importance of trees and forests in the National Capital Region

The NCC's green network and its ecosystems provide essential benefits to people in the National Capital Region. Trees and forests provide many environmental, social, and economic benefits, such as:

- helping filter air pollutants and releasing oxygen for us to breathe
- providing habitat for wildlife
- protecting us from the sun
- decreasing noise pollution
- helping to drain away excess rain and snowmelt
- increasing property values
- enriching the beauty of our landscapes
- contributing to the social and psychological well-being of our communities

Forests managed by the NCC

A 2019 study mapped and measured the size of the extensive tree canopy in the National Capital Region. It found that 74 per cent of NCC-managed lands are forested. Gatineau Park alone contributes more than 30,000 hectares of tree canopy, and the greenbelt contributes about 7,000 hectares. The tree canopy is not evenly distributed and varies from 56 per cent canopy cover in the greenbelt to 95 per cent in Gatineau Park.

Goals, objectives and actions

The Forest Strategy includes five overarching goals that support NCC's vision:

- **Understand** our trees and forests
- **Protect** existing canopy cover
- **Plant** the right trees in the right place
- **Manage** for resilience, safety, and efficiency
- **Engage** with partners and the community

Under these goals, the NCC has identified nine long-term objectives and 20 short-term actions. The objectives are the long-term tactics that the NCC will pursue to achieve the vision. Actions are the measures the NCC will undertake in the next five years to meet the objectives and its vision. The strategy will be renewed every five years.

Student task

Use the coloured chains to map out the greenbelt and Gatineau Park. Place coloured pylons on other green spaces where this forest strategy is relevant.



8. SUSTAINABLE CAPITAL CARD

Ecological Corridors

Ecological corridors are passages on land or in water, between a park and the surrounding natural environment. They enable movement of wildlife and dispersal of plant species, and they facilitate seasonal migration, reproduction, feeding, and adaptation to environmental change among various species.

The importance of ecological corridors

Natural environments are in better health when they are connected to one another. A greater variety of species is found in spaces connected by ecological corridors.

With a total area of only 361 square kilometres, Gatineau Park is too small to support the biodiversity found there. The park's connection with surrounding natural environments is therefore essential, especially for large predators, which require vast territories.

Ecological corridors make nature more resilient or better able to overcome disturbances, such as: human activity, climate change, and more. These corridors also prevent the extinction or extirpation of species by preventing plants and animals from being isolated from their natural habitats due to human infrastructure.

Identifying ecological corridors

From 2009 to 2012, a scientific study undertaken in collaboration with experts, local partners, and conservation agencies identified 12 potential ecological corridors for conservation purposes. The NCC plans to work with conservation organizations, various stakeholders and private landowners to protect these corridors that are vital to the park's biodiversity and health.

Student task

Examine the land around Gatineau Park on the Giant Floor Map and estimate where ecological corridors may be using coloured pylons. Discuss the characteristics of an ecological corridor or a good connection (trees, vegetation, streams, fields, places to feed or protect themselves, etc.) Select other places on the Giant Floor Map which may have ecological corridors and place pylons there.