GREEN MUNICIPAL FUND
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TIPS ON COMMUNICATING THE BIODIVERSITY AND ECOSYSTEM HEALTH BENEFITS OF TREE PLANTING PROJECTS

Planting and protecting trees is a key tool to promote biodiversity and ecosystem health. Regions with high biodiversity and healthy ecosystems are more resilient to environmental stressors such as drought and flooding. They also have superior water and air quality and support wildlife, including species at risk.

This tip sheet outlines strategies you can use to enhance the biodiversity and ecosystem health benefits of your tree planting projects and provides examples of how to effectively communicate these benefits. These strategies will help you present a business case to council, communicate with residents and other stakeholders and prepare high-quality tree planting project proposals and funding applications.

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WHAT ALL TREE PLANTING PROJECTS SHOULD INCLUDE

Tree planting projects of all types—including street trees, park plantings and restoration projects—provide some biodiversity and ecosystem health benefits to their communities. While restoration projects have the most direct connection to biodiversity, carefully selecting sites and the species you plant can lead to improved outcomes no matter the project type.

Below are some examples of how to consider biodiversity and ecosystem health in your tree planting projects.

HIGH-QUALITY PROJECTS OFTEN:

- Present information on ecosystem connectivity, species at risk, habitat restoration or other whole ecosystem benefits that are **specific to the planting site**. Where possible, they explain why the chosen site will offer greater benefits than alternative site options.
- Prefer **native trees** and other vegetation where site conditions allow and provide a clear rationale if non-native (non-invasive) species are selected.
- Explain how **specific species** (e.g., of pollinators, birds, small mammals, etc.) will benefit from the tree species and other vegetation being planted.
- Select a **diversity of tree species** and provide reasoning for why those species were selected (e.g., to achieve functional diversity or to follow the 10-20-30 rule).
- Clearly describe (for restoration projects) the **type of ecosystem** that is being restored, including why that site was selected and why restoration is needed.

HIGH-QUALITY PROJECTS SOMETIMES:

- Involve **project partners** with experience supporting biodiversity conservation, including local conservation authorities, invasive species centres or academic institutions.
- Incorporate the **removal and management** of invasive species.
- Conduct **short- and long-term monitoring** of the species that will benefit.
- Improve **soil health** through specific remediation measures. Where relevant, they describe which soil properties (e.g., soil organic matter content) will be improved or strengthened through the project.
- Prioritize planting sites near **existing natural spaces** or the restoration of degraded natural spaces.
- Draw connections to goals and priority actions in existing **biodiversity strategies or plans**.
- Add **new ecosystem features** (e.g., woody debris) that support wildlife, particularly in restoration projects.

For more information on how tree planting helps to restore and connect habitat, review **our Habitat restoration and connectivity factsheet**.

What's the difference between **biodiversity and ecosystem health benefits** and **other types of environmental benefits?**

Biodiversity and ecosystem health benefits refer to the advantages provided by your project to the variety of life in your region and the overall well-being of ecosystems. Trees can improve biodiversity and ecosystem health in many ways, such as by providing habitat for wildlife, improving soil quality and increasing ecosystem connectivity.

Other environmental health benefits go beyond ecosystems and the organisms within them. They include atmospheric benefits such as carbon sequestration and climate regulation, along with services such as water management and disaster mitigation. While these benefits can be intertwined with biodiversity and ecosystem health, they also have other implications for human well-being and economies.

HOW TO DESCRIBE BIODIVERSITY AND ECOSYSTEM HEALTH BENEFITS

When describing the biodiversity and ecosystem benefits of your tree planting project, be sure to provide **clear and specific** explanations of how various characteristics of your project will lead to desired outcomes.

Below are some examples of how these benefits might be described in presentations, reports or funding applications.

EXAMPLE #1: PROVIDING HABITAT FOR SPECIES AT RISK

If your project involves creating or restoring habitat for at-risk species, name the species that will benefit and why the specific trees or other vegetation being planted will benefit that species. Describe the direct relationships between the species if known, such as if a particular at-risk bird nests in this type of tree.

For example:

"Our project involves the restoration of a degraded Carolinian forest site. The Carolinian zone, located in southern Ontario, takes up less than one percent of the Canadian land mass yet provides habitat for 25 percent of the nation's species at risk, including many native trees. Over the years, this site has been over-taken by a range of invasive species including European buckthorn, dog strangling vine and garlic mustard, which have significantly reduced the regeneration of native trees and other vegetation, compromising the long-term health and viability of this forest.

For this project we will be removing invasive plant species and restoring the site with native trees such as tulip trees, cucumber trees (species at risk), sassafras and American beech. This Carolinian forest restoration will support species at risk including the Acadian flycatcher, red-headed woodpecker, Jefferson salamander and southern flying squirrel."

EXAMPLE #2: SUPPORTING POLLINATOR AND BIRD SPECIES

If your project does not specifically create habitat for species at risk, emphasize how the trees being planted will support native wildlife. For example:

"For our project, we are planting 14 native tree and shrub species that provide habitat and sustenance for local wildlife. One of these is hackberry (Celtis occidentalis). This tree is native to our region in southern Ontario and a host plant to several species of native butterflies (pollinators) including the hackberry emperor butterfly, question mark butterfly and mourning cloak butterfly. In addition, berries produced by this tree support more than 20 native bird species including cedar waxwings, red-bellied woodpeckers, American robins and yellow-bellied sapsuckers."

EXAMPLE #3: REDUCED RISK OF WATER POLLUTION

Broader biodiversity and ecosystem health benefits such as enhancing soil quality or reducing water pollution do not have to be specific to an individual tree species, but you may want to include site-specific information to emphasize your project's impact. For example:

"The neighbourhood selected for planting currently has limited green space and is located next to one of our local ravines. The high-volume tree pits that will be installed and the trees and perennial vegetation planted within them will absorb water and help reduce runoff during periods of heavy rainfall. By absorbing and intercepting rainwater, this project will reduce the amount of polluted or untreated water entering the river and negatively affecting local flora and fauna during high rainfall events."

Submitting funding applications

When providing information in funding applications about biodiversity and ecosystem health benefits, be sure to:

- Emphasize biodiversity and ecosystem health benefits throughout the application. Even if the application includes a specific question on ecosystem health or biodiversity, draw links to and include information in other parts of the application such as project preparation, species selection and monitoring plans.
- Keep your description of the project's biodiversity and ecosystem health benefits consistent across application materials (e.g., application forms, planting plans, other supporting resources).
- Thoroughly review the application guide and other materials, including evaluation criteria, to understand how biodiversity and ecosystem health will be considered when your application is assessed.

The **Growing Canada's Community Canopies** (GCCC) initiative provides funding for tree planting projects, including those that prioritize biodiversity and ecosystem health. To learn more about available funding, **visit our website**.

ADDITIONAL RESOURCES

- **Pollinator.org, Pollinator Partnership**
  Type in your postal code for a guide to specific species of trees and plants that support pollinators in your region.
- **Birdgardens.ca, Birds Canada**
  Provides a list of trees and other species to plant by region to support native and migratory bird species.
- **Species at risk public registry, Environment and Climate Change Canada**
  A registry of all plants and animals within Canada that are designated species at risk.

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