

In partnership with the Ontario Parks Association (OPA) and funded by a grant from the Greenbelt Foundation.



The Advancing Municipal Action on Green Infrastructure Project sought to identify gaps and barriers to the wider implementation of green infrastructure (GI) in the province of Ontario, and also improve the access to resources and tools available to municipal stakeholders.

Project Objectives

1. Develop tools to reduce barriers and fill knowledge gaps in municipal GI policy to help municipalities take action.
2. Develop and activate resources, tools, and training to support municipalities in incorporating GI into policies and plans.
3. Provide additional support to municipalities that lead to practical implementation of and investments in GI.
4. Promote the widespread adoption of new tools, resources, and strategies amongst municipalities across Ontario.

Top Recommendations for Municipalities



Having a municipal champion is key, and cross-departmental support is even better.



It's important to get council and resident support. Hands on engagement encourages buy-in and planning small pilot projects coupled with strong communication campaigns can also help build this support. Often, flooding has been a catalyst.



Budget for the full life cycle of a project. Capital costs are just a small piece, operating costs are more significant.



Using consistent language, both internally and within the sector, is helpful.



Incorporate green infrastructure into asset management plans and use a consistent methodology for the valuation of green infrastructure assets.

Key Barriers to Implementing GI

Participants communicated gaps, challenges, and barriers to implementing GI in their communities including:

- o lack of accessible funding for GI implementation and maintenance,
- o lack of technical understanding,
- o lack of standardized materials and guidelines,
- o challenges with coordinating different departments,
- o need for guidelines, bylaws, or codes that support GI implementation and maintenance, and,
- o more documentation of successful projects.

Participating Stakeholders

The participants of this project were green infrastructure champions who already had a high level of knowledge about GI, and included:

- o 28 municipalities,
- o 6 conservation authorities,
- o 9 NGOs, and
- o 2 private companies.

The project was carried out in two phases:

Phase One took place in the first half of 2020. In this phase, we:

- compiled a contact list of municipal GI champions and other stakeholders to engage for active research purposes such as surveys, interviews, and multi-stakeholder workshops,
- assessed existing resources that support GI implementation, as well as gaps and barriers in GI implementation, and
- developed metrics to evaluate projects towards overall strategic objectives and activity-based objectives.

Phase Two took place in the second half of 2020. In this phase, we:

- continued stakeholder engagement for feedback on how the project could best serve them,
- worked with partner organizations to assess ways to fill resource gaps and deliver relevant resources, tools, and training,
- piloted three training workshops: GI for Climate Adaptation and Mitigation, Economic Valuation of GI Benefits, and GI Asset Management Planning, using the feedback from these workshops to help plan more training workshops for 2021, and,
- created an online resource hub, the Municipal Hub for Green Infrastructure Resources.

Additional Findings and Outcomes



Participants were also asked about knowledge gaps and topics of interest to inform future training and resource development. The **topics of most interest** were:

- support for incorporating GI into asset management plans,
- cost/benefit analysis of GI vs. grey infrastructure,
- how to update Official Plan policies to address GI,
- how to engage the community to advance GI,
- soil improvement and lifecycle management activities for street trees,
- calculating carbon sequestration from GI, and,
- Intro to GI courses.

The Municipal Hub is a key outcome of this project. It is an online resource that will aid municipalities and other practitioners in overcoming barriers to GI implementation and taking action on GI in their areas. This living resource will be updated regularly to expand upon its main categories:

- General Resources,
- Benefits of Green Infrastructure,
- Toolkits & Guides,
- Tools & Calculators, Guidelines & Standards, and
- Plans and Case Studies.

Check out the Hub [here](#).



What is Green Infrastructure?

Green Infrastructure is defined in the Ontario Provincial Policy Statement as the “natural and human made elements that provide ecological and hydrological functions and processes. Green infrastructure can include components such as natural heritage features and systems, parklands, stormwater management systems, street trees, urban forests, natural channels, permeable surfaces, and green roofs.”

About Green Infrastructure Ontario (GIO)

The Green Infrastructure Ontario (GIO) Coalition is an alliance of organizations that share a common vision for a healthy, green Ontario where the economic, social, environmental and health benefits of green infrastructure are fully realized. Founded in 2009, and guided by a steering committee, we work to promote awareness and understanding of green infrastructure, and to support policy and activities that increase implementation of green infrastructure across Ontario.