

A Roadmap for Green Infrastructure in Ontario

Introduction

Green infrastructure is at an important juncture in Ontario. There is growing interest and experience in green infrastructure providing necessary ecological and infrastructure services across a diversity of municipalities. Ontario municipalities are also poised for major investments in infrastructure through recent federal and provincial infrastructure funding commitments. This represents an opportunity to make a generational shift towards infrastructure that delivers impressive results in service delivery and cost effectiveness while also providing valuable co-benefits to human health, property values, community well-being, carbon sequestration, and other ecological services. To ensure that Ontario and its municipalities can make the most of this opportunity we need a Roadmap that provides a vision of our destination and a pathway of strategies to get there.

The Clean Air Partnership and the Green Infrastructure Ontario Coalition with input from numerous municipal, conservation authority and other important stakeholders have collaborated to deliver this Roadmap.

There are five main elements to the Roadmap:

- Timeline – beginning in 2017 and stretching to 2040
- A Vision with interim Milestones
- Four Tracks to organize coordinated actions
- Strategies to achieve the Vision
- Objectives associated with each strategy

A Foundation for Change

The purpose of this document is to present a united vision for green infrastructure in Ontario. This roadmap is an important rallying resource for all groups working towards a common cause: more green infrastructure. The strategies and objectives outlined in this roadmap will be implemented collectively by a wide variety of organizations in order to achieve the vision. While they might be listed under a specific milestone, the strategies and objectives can and should be implemented throughout the roadmap timeline.

Vision

Green infrastructure is the new normal

- Preference for green infrastructure is widespread and has been institutionalized to the point where all applicable infrastructure decision making considers and incorporates green infrastructure standards for the multiple benefits offered to the community.

Green Infrastructure Vision and Interim Milestones

Timeline	2017 Current	2020 Milestone	2030 Milestone	2040 Vision
State of Green Infrastructure	Green infrastructure is emerging	Green infrastructure is on a level footing	Green infrastructure is the preferred option	Green infrastructure is the default
Description	While the benefits of green infrastructure are increasingly well understood, examples are still sparse locally. Knowledge is emerging and guidance being developed but adoption is not widespread and barriers still exist real or perceived – in knowledge, regulations, professional standards, etc.	Regulatory and funding barriers have disappeared and other barriers in knowledge, public and professional acceptance, etc. are rapidly falling. Examples are proliferating providing strong evidence for the green infrastructure business case.	Based on a solid business case and growing track record in asset performance, green infrastructure options are top of mind in new developments and existing infrastructure is being replaced with a combination of grey and green infrastructure as it comes due for renewal.	Preference for green infrastructure is widespread and has been institutionalized to the point where infrastructure projects including new and re-developments would need a strong case to deviate from the green infrastructure standard. In many cases replacement of existing infrastructure with green infrastructure alternatives has been accelerated to reap early net benefits of green infrastructure.

The Roadmap

The roadmap uses the vision and interim milestones to outline key strategies and objectives needed to achieve the vision. It is organized in to four key action tracks:

- Study green infrastructure performance and raise awareness and communicate the benefits and business case
- Create a green infrastructure-positive regulatory and funding environment
- Incorporate green infrastructure in asset management
- Support green infrastructure practitioners and others with tools, training and resources

Green Infrastructure Roadmap				
Timeline	2017 Current	2020 Milestone	2030 Milestone	2040 Vision
State of Green Infrastructure	Green infrastructure is emerging	Green infrastructure is on a level footing	Green infrastructure is the preferred option	Green infrastructure is the default
Track 1 Study green infrastructure performance and raise awareness and communicate the benefits and business case	Strategy 1A Monitor performance and communicate green infrastructure cost/benefits to key influencers in municipalities, province and development community. Objective 1.1: Municipal leaders show increased willingness to implement green infrastructure. Objective 1.2: Green infrastructure stakeholders implement and monitor performance (including costs) of projects.	Strategy 1B Collect and share green infrastructure examples, especially among professionals. Objective 1.3: Create larger pool of professional advocates and practitioners. Objective 1.4: Create a larger pool of successful examples.	Strategy 1C Continue to distill experience to create general and predictive data about costs/benefits. Objective 1.5: It is easy to create quantifiable business cases and communities across Ontario do so regularly when making infrastructure decisions.	Strategy 1D Share and reward best practices. Objective 1.6: Maintain momentum and public support.
	Strategy 2A Remove funding barriers and seize legislative/planning opportunities. Objective 2.1: Ensure green infrastructure qualifies for provincial and federal infrastructure funding. Objective 2.2: Ensure green infrastructure is included in climate adaptation plans at all levels. Objective 2.3: Create specific funding streams for green infrastructure.	Strategy 2B Remove other regulatory and professional barriers. Objective 2.4: Provincial agencies and municipal governments have mapped out the process to incorporate green infrastructure measures and have ensured that staff are trained to review and approve.	Strategy 2C Create an enabling environment that encourages green infrastructure. Objective 2.5: Create incentives for green infrastructure development on private property.	Strategy 2D Enshrine preference for green infrastructure in legislation at all levels. Objective 2.6: All infrastructure project and new and re developments must use green infrastructure options where appropriate or explain why not. There may be penalties for non-use of green infrastructure.
Track 3 Incorporate green infrastructure in asset management	Strategy 3A Identify barriers to adding green infrastructure assets to asset management systems and remove those barriers.	Strategy 3B Train asset managers to work with green infrastructure asset classes.	Strategy 3C Improve data quality and performance information for green infrastructure assets.	Strategy 3D Use green infrastructure asset management to continuously improve management of green infrastructure assets.

Objective 3.1:

Local and provincial politicians show support for inclusion of green infrastructure in asset management systems.

Objective 3.2:

The leading software tools for asset management can be applied to at least some green infrastructure asset classes.

Objective 3.3:

Asset managers in most large communities and some small ones know how to include green infrastructure in their asset management plans and have or are developing inventories of green infrastructure assets to be included.

Objective 3.4:

Reliability of green infrastructure asset data is as good as traditional data in asset management systems.

Objective 3.5:

Municipal decision-makers are regularly using green infrastructure asset management information to improve level of service, minimize risk and reduce costs.

<p>Track 4 Support GI practitioners and others with tools, training and resources</p>	<p>Strategy 4A Understand gaps and how best to fill needs of practitioners.</p>	<p>Strategy 4B Roll out tools, resources and training, and monitor effectiveness.</p>	<p>Strategy 4C Expand beyond target market to meet tool, resource or training needs of others who can influence green infrastructure.</p>	<p>Strategy 4D Expand scope to support green infrastructure nationally and internationally.</p>
	<p>Objective 4.1: There is a clear understanding of what green infrastructure tools, resources, and training are needed and how to deliver them.</p>	<p>Objective 4.2: A green infrastructure centre of excellence has been created to bring together resources and expertise for effective delivery of tools and training to support the transition.</p>	<p>Objective 4.3: Green infrastructure practitioners can work in a supportive and collaborative environment with others who share their green infrastructure values and language.</p>	<p>Objective 4.4: Green infrastructure experts from Ontario are sought globally for the quality of their work. Ontario is recognized as a world leader in green infrastructure.</p>

Where do we go from here

Strengthen collaboration

The roadmap contains strategies and objectives that touch on the activities of many organizations and municipalities across the Ontario. The goal of the document is to give the green infrastructure sector a common vision and a roadmap in which to position activities. We hope that stakeholders will share this roadmpa with elected officials and key decision makers to illustrate our collective objectives.

Monitor and Communicate Progress

Looking forward, the Green Infrastructure Ontario Coalition will monitor the progress towards the vision and communicate about it.