Innovations and Best Practices

Every day, municipalities set policies and make decisions about infrastructure. These decisions about municipal infrastructure can relate to any or all of planning, design, construction, management, assessment, operations, maintenance and rehabilitation. This document provides guidelines to help municipalities make the best decisions possible within the context of social, financial and environmental sustainability and economic development.

These guidelines are also reflected in the series of best practices for sustainable municipal infrastructure published by the National Guide to Sustainable Municipal Infrastructure (InfraGuide) – a joint effort of Infrastructure Canada, the Federation of Canadian Municipalities and the National Research Council. InfraGuide is supported across Canada by a network of municipal staff and elected officials, scientists, technologists and other practitioners. Together, we are working to mobilize all Canadian municipalities to adopt sustainable practices and policies for infrastructure.

The outcomes of our actions are positive, clear and eminently worthwhile: the improvement of the quality of our living and the viability of our communities. Adopting sustainable approaches to infrastructure services will help communities:

■ Improve and enhance quality of life
■ Minimize negative impacts on health, safety and the environment
■ Investigate the impacts of potential actions to manage and mitigate risk
■ Manage change through good stewardship
■ Consistently make informed long-term infrastructure decisions
■ Maximize the ability of future generations to meet their infrastructure needs
■ Minimize overall lifecycle investment

National Guide to Sustainable Municipal Infrastructure

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Decisions about municipal infrastructure relate to planning, design, construction, management, assessment, operations, maintenance and rehabilitation. Decision making should reflect these principles.

**Build sustainability into your municipal culture**

**Holistic Perspective, Systems Thinking**

Consider the whole system as well as its parts.

Recognize that seemingly unconnected projects, activities and their component parts are interrelated and interdependent.

**Awareness, Learning, Participation and Engagement**

Share information to increase awareness, generate knowledge and build capacity.

Seek broad representation and participation to ensure shared responsibility and stewardship, informed decision making, and recognition of diverse and changing values.

Use consensus-building and transparent reporting for improved accountability where possible.

**Equity**

Ensure that equity issues are considered and that benefits and costs are distributed fairly over space and time.

**Practicality**

Sustainability in municipal infrastructure is a dynamic, evolving process that requires us to sustain a ‘long-term vision’ and to implement and measure progress in a practical and incremental fashion.

**Effectiveness and Efficiency**

Seek to maximize the contribution to human and ecosystem health and to economic viability.
About InfraGuide

Our Mission
The National Guide to Sustainable Municipal Infrastructure (InfraGuide) identifies and disseminates best practices and encourages innovation to support sustainable municipal infrastructure decisions and actions that protect and enhance the quality of life of Canadians.

Our Best Practices
Best practices are proven state-of-the-art methodologies for municipal infrastructure planning, design, construction, management, assessment, maintenance and rehabilitation that consider the local economic, environmental and social dimensions that contribute to sustainable communities.

Our Objectives
Sustainable municipal infrastructure is infrastructure that is managed to meet the needs of the present without compromising the ability of future generations to meet their own needs. It maintains or enhances economic opportunity and community health and well being, while protecting and restoring the natural environment upon which people and economies depend. Sustainable municipal infrastructure is achieved through the application of principles and guidelines to municipal decision making that balance and integrate the environmental, economic and social dimensions of sustainability.
Apply sustainability to everyday practice

These guidelines flow from a sustainable municipal culture and apply to all aspects of municipal infrastructure decision making – from policy to practice.

- Place priority on human health and safety issues in sustainable municipal infrastructure.
- Capture all intended and unintended costs and benefits (monetary and non-monetary) across economical, environmental and social dimensions.
- Cooperate with and engage municipalities and others through public consultation and participation.
- Incorporate ‘reduce, reuse and recycle’ philosophies.
- Encourage the use of full cost disclosure tools for infrastructure services.
- Include life-cycle costing (including capital investment, operational, infrastructure renewal, rehabilitation and decommissioning) across economical, environmental and social dimensions to minimize intended and unintended costs today and for future generations.
- Minimize the overall disruption to the community by considering intended and potential unintended impacts of infrastructure projects.
- Balance the demand for municipal services with social, environmental and economic priorities and consequences.
- Weigh impacts (intended and unintended, direct and indirect); identify and manage risks when considering innovation and reasonable alternatives.
- Promote the pursuit of excellence and innovation through a commitment to continuous improvement and learning.

Join the InfraGuide Network of Excellence

InfraGuide’s success depends on a strong network of volunteer infrastructure experts who represent every field, all regions of Canada and both public and private sectors. These volunteers work collaboratively in teams to develop best practices – a truly ‘bottom-up’ approach to information development and sharing.

This collaborative network extends through local level representatives – regional contacts – whose role it is to connect the infrastructure community both locally and nationally and to facilitate information flow to and from InfraGuide. Regional contacts work with InfraGuide committee members and locally accessible infrastructure experts to create a visible presence for InfraGuide.

Get involved in InfraGuide!

Help us put sustainability into practice. Collaborate with other experts in your field. Whether you are a technician, a manager or a policymaker, we need your input and the benefit of your experience. You will develop new contacts with counterparts elsewhere in Canada! Find out how on our Web site or call us at 1-866-330-3350.

www.infraguide.ca

The principles and guidelines have been formally endorsed by the following organizations: