

Green Infrastructure for Ontario's Rural Communities:

Nature and its Contributions to Economic Development and Resilience



INTRODUCTION

This research examines how green infrastructure (GI) can be used in rural Ontario to support healthy ecosystems, strengthen community resilience, create economic opportunities, and improve quality of life.



ABOUT THE RESEARCH

The research reviewed literature, surveyed Ontario communities, and conducted key informant interviews to understand how rural municipalities are using nature and natural systems as community assets.

Green infrastructure provides a wide range of environmental, social, and economic benefits—from improving water and air quality to supporting tourism, local food production, and climate change adaptation.

Case studies across Ontario illustrate innovative approaches that rural communities are using to enhance economic development and build long-term resilience.



KEY BENEFITS OF GREEN INFRASTRUCTURE



Protects and enhances natural systems and biodiversity



Improves water quality and stormwater management



Supports local food production and soil health



Enhances community health, livability, and wellness



Drives economic development and creates job opportunities



Supports climate change adaptation and mitigation

HOW PLANNING CAN ADVANCE GREEN INFRASTRUCTURE



Integrate GI into Municipal Planning

Embed green infrastructure in official plans, land use policies, and community strategies to protect natural assets and guide development.



Use GI for Infrastructure and Economic Development

Leverage nature-based solutions to reduce costs, improve water management, support agriculture, tourism, and outdoor recreation, and create green jobs.



Support Place-Based, Locally Driven Approaches

Encourage collaboration and community-led initiatives that build on local strengths and values to deliver multiple long-term benefits.



PRACTICAL CONSIDERATIONS FOR RURAL COMMUNITIES



Build partnerships across sectors and communities.



Use evidence and local data to inform decisions.



Prioritize projects with multiple benefits and cost savings.



Engage residents and stakeholders early and continuously.

KEY FINDINGS

1

Multifunctional Benefits

GI delivers environmental, social, and economic benefits including better water, climate resilience, biodiversity, recreation, tourism, local food, and community wellbeing.

2

Underutilized Opportunity

Rural Ontario often overlooks GI as a strategic tool for economic development, infrastructure planning, and community resilience.

3

Cost-Effective Solutions

Nature-based approaches can reduce municipal spending on "grey" infrastructure and deliver long-term cost savings.

4

Strengthens Resilience

GI helps communities adapt to climate change, manage risks like flooding and drought, and protect essential natural systems.

5

Enhances Livability and Economies

GI supports vibrant communities by improving health, attracting visitors, retaining residents, and creating jobs.

WHY IT MATTERS



Improves quality of life and community health.



Protects water resources and natural ecosystems.



Strengthens rural economies and supports local jobs.



Builds climate resilience for future generations.

FURTHER INFORMATION

The full publication titled "Green Infrastructure for Ontario's Rural Communities: Nature and its Contributions to Community Economic Development and Resilience" can be accessed online.

See more: <https://www.waynecaldwell.ca/projects/green-infrastructure/>

RESEARCH CREDITS

Prepared by: Dr. Wayne Caldwell and project team

Project Team Members:

- Dr. Wayne Caldwell
- Paul Kraehling
- Jaime Dubyna
- Jonathan Pauk

University of Guelph