

Niagara Irrigation Initiative Project

Project Charter

April 2025



Niagara  Region



 Grape Growers
of ONTARIO



Ontario
Tender Fruit
Growers

Town of
 Lincoln

 St. Catharines

Niagara Lake
-on-the-Lake

 Sustainable Canadian
Agricultural Partnership

Ontario 

Canada 

Niagara Irrigation Initiative Project

Project Charter

1.0 Introduction

Niagara is one of only a few areas in Canada with climate and soil conditions suitable for high value crops such as grapes and tender fruit. However, the impacts of climate change, including drought conditions, have highlighted the need for improved irrigation infrastructure across Niagara. Previous studies have identified that there is significant room for increased yields of high value crops throughout the region. However, difficulties in accessing irrigation water and capital funding to build water delivery systems is preventing expansions.

Through these previous studies a need has been identified for a new piped system in the Lincoln/St. Catharines area below the escarpment and for upgrades and enhancements to the existing open channel system in Niagara-on-the-Lake.

2.0 Project Scope and Objectives

The Niagara Irrigation Initiative Project (the “Project”) includes two separate components, both of which will be undertaken and managed concurrently by the Steering Committee:

- A Feasibility, Costing, and Preliminary Design Study for a new piped irrigation system in Lincoln/St. Catharines below the escarpment (the “Study”)
- Engineering work to support upgrades and enhancements to the existing irrigation system in Niagara-on-the-Lake (the “Assignment”)

2.1. Feasibility, Costing, and Preliminary Design Study

The purpose of Feasibility, Costing, and Preliminary Design Study is to advance the previous irrigation work completed in Niagara by providing the following information regarding a potential piped irrigation system in Niagara between Beamsville and St. Catharines below the Escarpment:

1. A recommendation for the most efficient, environmentally sound and cost-effective irrigation system. It has been confirmed that the undertaking does not require an environmental assessment in accordance with the Ontario Environmental Assessment Act. However, an EA like evaluation of Source Water and Alignment Options will be undertaken. The evaluation will include considerations of impacts on water quantity and water quality. The outcomes of these evaluations will also help to inform whether the system is to be operated seasonally or year round.

2. A preliminary design (10% engineering design) of the preferred alternative. This would include a preliminary pipe network and pipe sizes, as well as a preliminary design of source water option(s) including pumping station locations/requirements, draft intake design, property requirements, etc. The preliminary design will be supported by hydraulic modelling.
3. Cost estimate study including capital, operation, life cycle, and design costs.
4. Comprehensive consultation and engagement program including growers, stakeholders, public, government and regulatory agencies, and Indigenous Groups and organizations.
5. A consideration of next steps and implementation, for example, next steps in the design and construction process and a possible phasing strategy which considers logical buildout of the system and anticipated demand.

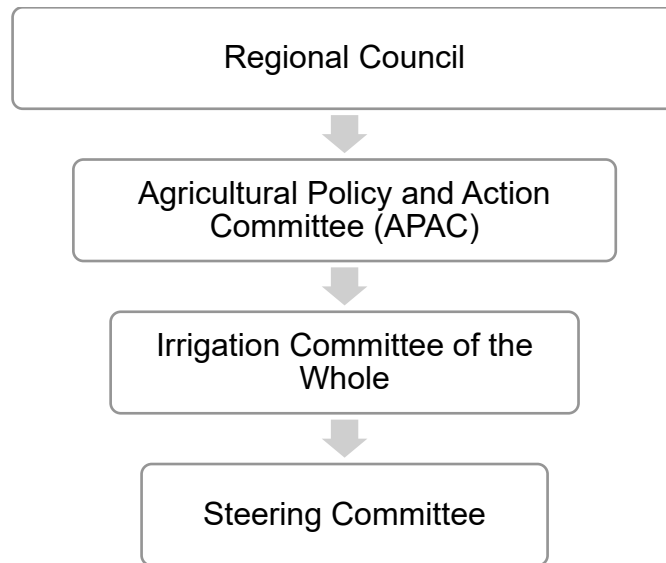
2.2. Upgrading and Enhancing the Existing Irrigation System in the Town of Niagara-on-the-Lake

Recognizing the crucial role that the Town of Niagara-on-the-Lake's irrigation infrastructure plays in the agriculture and tourism industries, the Town commissioned an engineering consulting firm in 2019 to prepare the first Irrigation System Strategy and Master Plan ("Master Plan"). The Master Plan was completed in 2021 and serves as a first step toward improving customer levels of service, long-term growth and sustainability, and state-of-good-repair of the Town's irrigation system.

The next step in upgrading the existing irrigation system in Niagara-on-the-Lake is to update and consolidate the Town's three irrigation system's engineering reports based on the recently completed Master Plan. Following this consolidation, engineering design drawings and tender documents would be prepared.

3.0 Project Governance

Regional Council's Agricultural Policy and Action Committee ("APAC") established the Niagara Irrigation Committee of the Whole ("Committee of the Whole") with the objective to advance irrigation initiatives in the Region. The Niagara Irrigation Initiative Project Steering Committee ("Steering Committee") - which is a subcommittee of the Committee of the Whole - has been established to directly oversee the completion of the Project.



The Steering Committee is undertaking the Project on behalf of the growers, producers, agricultural community, and others who will benefit from new and upgraded irrigation systems in the Region. The Steering Committee includes Regional Staff, grower and municipal representative from Niagara-on-the-Lake, Lincoln, and St. Catharines, as well as a representative from Grape and Tender Fruit Ontario Limited (GTFOL) and Regional Council.

4.0 Timelines

The overall Project is to be completed by December 31, 2026. Within that timeline there are a number of individual tasks and phases which will be completed as follows. The comprehensive consultation and engagement program will be ongoing over the course of the project. The date of public consultation events will be advertised when scheduled.

- Evaluation of Alternatives – May 1 to December 31, 2025
- Preliminary Engineering Design - January 1 to June 30, 2026
- Cost Estimate Study – March 1 to July 31, 2026
- Consultation and Engagement – February 20, 2025 to December 31, 2026
- Establish Working Committee – May 31, 2025
- Interim Project Report – December 31, 2025
- Updated Interim Project Report – June 30, 2026
- Final Project Report – December 31, 2026

5.0 Consultation and Engagement

A comprehensive consultation and engagement program will be undertaken in support of the Project. At the conclusion of the Project, consultation and engagement summary reports will be prepared to document the entirety of the program, including all input received as well as a discussion on how the input was considered by the Project team. Input can be submitted to the Project team at any time to irrigation@niagararegion.ca

The objectives of the consultation and engagement program for the Feasibility, Costing, and Preliminary Design Study are:

- a) To inform the public on the importance of irrigation to agriculture in Niagara as well as the goals and objectives of the Study. To seek feedback from the public which will inform the identification and evaluation of alternatives.
- b) To engage with the grower, producer, greenhouse operator, and agricultural community in the study area. It is essential to the successful outcome of the Study that end-users are sufficiently engaged and that there is buy-in regarding the methodology, conclusions, and recommendations of the Study.
- c) To meaningfully engage with Indigenous Groups and organizations that have identified interest in the Study.
- d) To consult with Stakeholders and approval authorities. It is anticipated that the Study will require a range of permits/ approvals as part of the design and construction process. It is essential that there is an extensive consultation program with stakeholders, all levels of government, regulatory agencies, and other approval authorities to ensure all requirements are fully understood by the Steering Committee. Understanding the full extent of these requirements is essential to determining the overall feasibility of the project.

The objectives of the consultation and engagement program for the updates and enhancements to the existing irrigation system in Niagara-on-the-Lake are:

- a) To inform the public on the importance of irrigation to agriculture in Niagara-on-the-Lake as well as the goals and objectives of the Assignment. To seek feedback from the public on the proposed upgrades and enhancements.
- b) To meet and engage with the Town of Niagara-on-the-Lake Irrigation Committee who have a major role in the operation and management of the Town's irrigation system.
- c) To engage with growers and Registered Irrigation Users. It is essential to the successful outcome of the Assignment that end-users are sufficiently engaged and that there is buy-in regarding the methodology, conclusions, and recommendations of the Assignment.

- d) To meaningfully engage with Indigenous Groups and organizations that have identified interest in the Assignment.
- e) To consult with Stakeholders and approval authorities. It is anticipated that there will be a range of permits and approvals required as part of the design and construction process. It is essential that there is consultation with stakeholders, all levels of government, regulatory agencies, and other approval authorities to ensure all requirements are fully understood by the Steering Committee and Town of Niagara-on-the-Lake.

Consultation and engagement activities that will be undertaken as part of the Project include but are not limited to:

- Project Website
- Public Information Centres
- Project Newsletters
- Workshops with growers, Registered Irrigation Users, producers, and greenhouse operators
- Opportunities for informal engagement at grower events, conventions, AGM's, etc.
- Meetings, correspondence, and consultation with individual provincial and federal ministries and agencies, local and regional utility providers, the local conservation authority, and Niagara Escarpment Commission, etc.
- Meetings, discussions, and correspondence with Indigenous Groups and organizations that have identified an interest in the Study
- A Working Committee including a full range of interested stakeholders which will serve in an advisory role to the Steering Committee

6.0 Project Deliverables

Deliverables for the Feasibility, Costing, and Preliminary Design Study will include a series of Technical Memorandums and other documents at each project phase. These individual documents will then be combined into a Final Project Report:

- Technical Memorandum # 1 – Evaluation Factors and Criteria, Evaluation of Alternatives, and Preferred Solution & Risk Assessment Matrix
- Technical Memorandum # 2 – Preliminary Design Summary Report including Hydraulic Modelling Report & 10% Engineering Design Drawings
- Technical Memorandum # 3 – Cost Estimate Study

- Technical Memorandum # 4 – Consultation and Engagement Summary Report
- Technical Memorandum # 5 – Considerations for Implementation

Deliverables for the updates and enhancements to the existing irrigation system in Niagara-on-the-Lake are:

- Consolidated Irrigation System Engineering Report
- Engineering Design Drawings
- Operations Manual
- Tender Documents
- Consultation and Engagement Summary