

Niagara Irrigation Initiative Project

Updated Interim Report

June 2026



Possibility grows here.



Niagara Irrigation Initiative Project

Updated Interim Report

1 Purpose

The purpose of this Updated Interim Report is to provide an update on the progress of the Niagara Irrigation Initiative Project (the “Project”) in comparison to the workplan, methodology, and schedule set out in the Project Charter (April 2025).

2 Background

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 Niagara Escarpment and for upgrades and enhancements to the existing open channel system in the Town of Niagara-on-the-Lake.

3 Project Scope and Objectives

The Project includes two separate components, both of which are being undertaken and managed concurrently by Niagara Region Staff on behalf of the Steering Committee:

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

3.1 Study Areas

The Project encompasses two distinct geographic areas within the Niagara Region. The Study Area for the Feasibility, Costing and Preliminary Design Study is between the urban boundaries of Beamsville and St. Catharines north of the Niagara Escarpment towards Lake Ontario (Figure 1). This Study Area is characterized by agricultural lands, scattered rural residential uses and natural features.

The Study Area for the Niagara-on-the-Lake Assignment (Figure 1) is defined by the municipal boundaries of the Town. The Niagara-on-the-Lake Study Area includes vineyards, orchards, greenhouse operations, rural residential properties, small settlements, and associated agricultural services. In the Town of Niagara-on-the-Lake there is an existing open channel irrigation system. The Town's existing irrigation system can be broken down into three (3) primary delivery areas.

- Harrison/Routh (HR)
- Four Mile Creek (FMC)
- Airport-Bright Lavigne (ABL)

Within each of the systems, various pipes and open channels convey water from a variety of intake locations mainly by means of gravity.

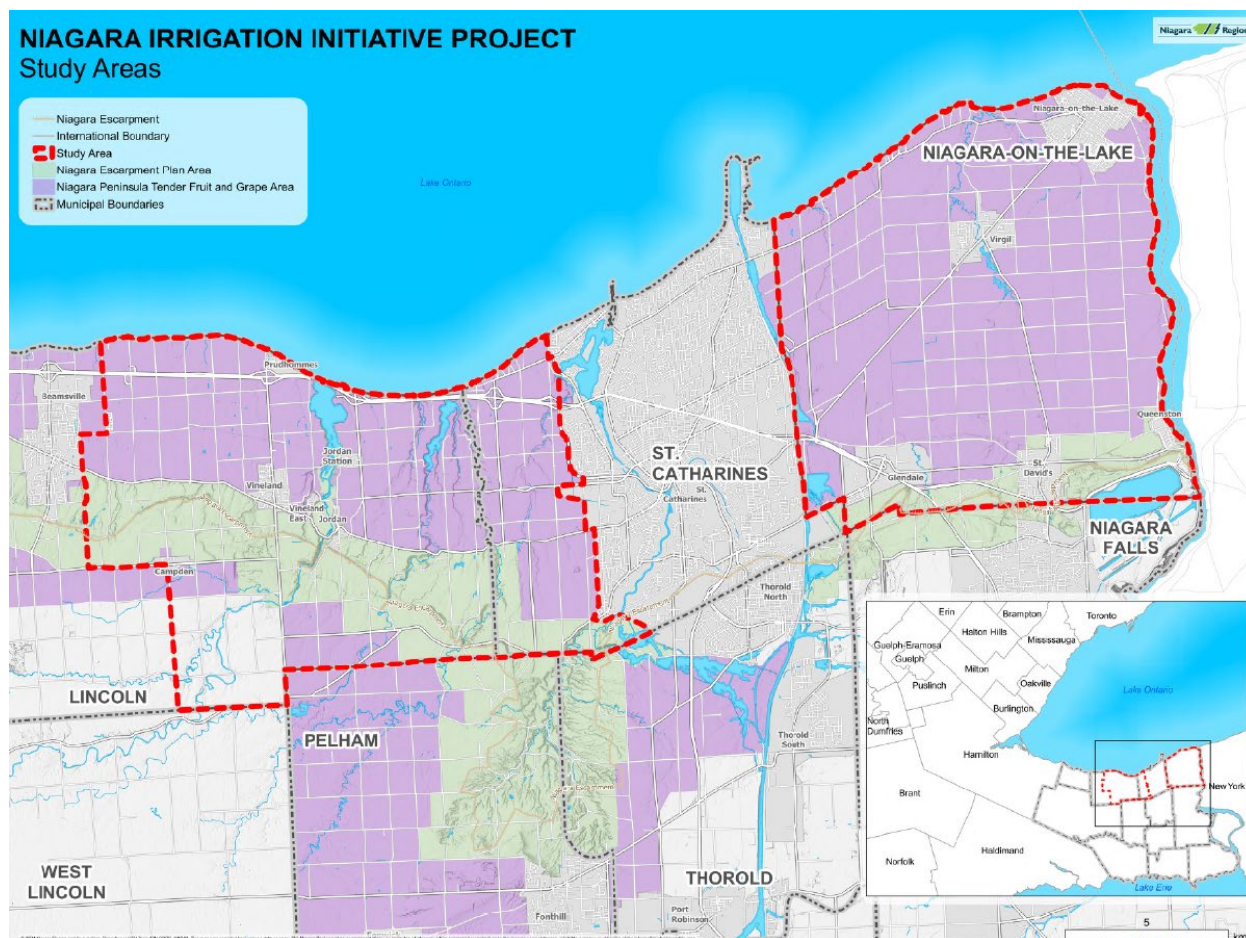


Figure 1: Study Areas

3.2 Feasibility, Costing, and Preliminary Design Study

The purpose of the Study is to advance the previous irrigation work completed in Niagara by providing the following information regarding a potential new communal 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 is being undertaken. The evaluation will include considerations of impacts on water quantity and water quality among the full range of environmental considerations.
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. A 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.

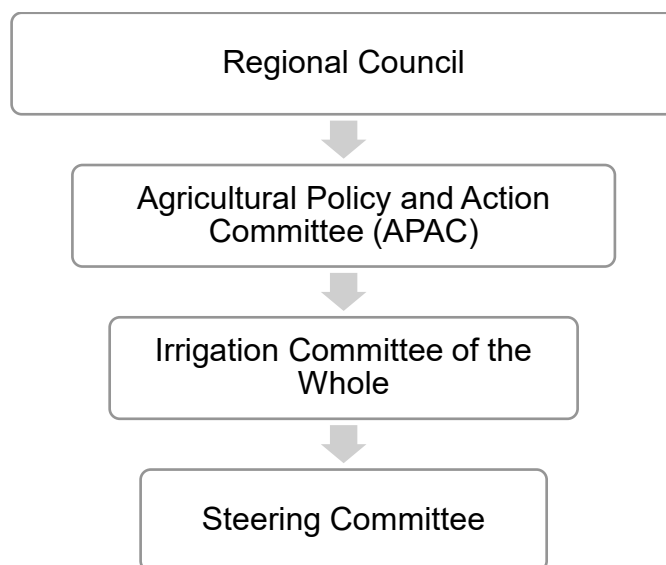
3.3 Upgrading and Enhancing the Existing Irrigation System in the Town of Niagara-on-the-Lake

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 Assignment seeks to update and consolidate the Town's three irrigation system's engineering reports based on the recently completed Master Plan and other input. Following this consolidation, engineering design drawings and tender documents would be prepared for the preferred infrastructure upgrades.

4 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.



4.1 Project Steering Committee

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. The Ontario Ministry of Agriculture, Food, and Agribusiness (OMAFRA) and Canada Infrastructure Bank (CIB) are also participating on the Steering Committee.

4.2 Niagara Region Staff

In addition to being a member of the Steering Committee and a project funder, Niagara Region Staff is undertaking project management and technical support for the overall Project on behalf of the Steering Committee.

4.3 Engineering Consultants

The procurement process for the Project was completed by Niagara Region on behalf of the Steering Committee in early 2025. This process included the finalization of the project scope and the release of the Requests for Proposals (RFPs) on April 10, 2025. Two separate RFPs were issued to ensure that each area's unique technical and

planning needs would be addressed. Following two separate competitive procurement processes, Niagara Region formally retained AECOM in August 2025 to lead the engineering work for both individual components of the Project.

5 Working Committee

A Working Committee was formed by the Project Team to serve as a collaborative forum bringing together regulatory, approval, and other agencies, members of the Project Steering Committee, interested Indigenous groups and organizations, and grower representatives. The Working Committee provides an opportunity for a range of groups and organizations to stay informed about project progress, share perspectives, and provide input on planning and engagement activities. Meetings are designed to foster open dialogue, promote coordination across sectors, and ensure that diverse viewpoints are considered throughout the project. Niagara Region staff Chair the Working Committee meetings.

The first Working Committee meeting was held on May 30, 2025, serving as an introduction to the Project and the Committee's purpose. The meeting was well attended, with well over 30 participants. Participants were provided with an overview of project charter, scope, and anticipated timelines. The session also allowed members to introduce themselves and their respective organizations.

The second meeting of the Committee was held on October 7, 2025. This meeting focused on introducing the project's consulting team and sharing updates on project progress. Committee members received detailed information on ongoing activities, upcoming milestones, and preliminary findings. The session also included discussions on roles and responsibilities, providing members with clarity on how they could contribute to the project and collaborate effectively with one another.

On January 6, 2026, the third meeting of the Committee was held. Points of discussion included a progress update highlighting completed activities and next steps. Participants were able to review project developments, ask questions, and offer feedback to guide future work.

The fourth meeting of the Committee was held on March 31, 2026. This meeting focused on sharing the preferred design alternatives for the Niagara-on-the-Lake Assignment and presenting preliminary alignment options for the Feasibility Study. For the Feasibility Study, an interactive Mentimeter exercise was used to gather feedback from Committee members regarding considerations and constraints associated with road, rail, and natural feature crossings.

On June 23, 2026, the fifth meeting of the Committee was held. This meeting focused on providing project status updates for both the Niagara-on-the-Lake Assignment and the Feasibility Study. For the Niagara-on-the-Lake Assignment, the Project Team

presented detailed design updates and outlined progress made since the previous meeting. For the Feasibility Study, the team provided an update on project progress, including a discussion of additional modelling scenarios being considered to further evaluate potential alignment options.

6 Project Website

Niagara Region maintains a dedicated project website (<https://www.niagararegion.ca/projects/irrigation-initiative/default.aspx>) to provide members of the public and interested stakeholders with easy access to information about the Project. The website includes details on Project objectives, timelines, updates, and opportunities for engagement. It also serves as a direct point of contact for project staff, allowing visitors to ask questions, provide feedback, or request additional information.

7 Timelines

The overall Project is to be completed by December 31, 2026. Key milestones in the overall Project schedule include:

- Establish the Working Committee – May 31, 2025 (Complete)
- Interim Project Report – February 28, 2026 (Complete)
- Updated Interim Project Report – June 30, 2026 (This Report)
- Final Project Report – December 31, 2026

This Updated Interim Project Report provides a status update against the Project Charter and serve as a follow-up to the February 28, 2026 Interim Report.

The Final Report will provide an overview of all the project activities and deliverables for both the Feasibility Study and the Niagara-on-the-Lake Assignment against the Project Charter.

The timelines within the Project Charter were preliminary and determined prior to the onboarding of a specialized engineering consultant. The following sections provide an updated timeline and progress report for the key Project steps and deliverables.

7.1 Feasibility, Costing, and Preliminary Design Study

Deliverables for the Study will include a series of Technical Memorandums and other documents at each phase. These individual documents will then be combined into a Final Project Report.

Table 1: Timelines for the Feasibility, Costing, and Preliminary Design Study

Tasks	Deliverable	Timeline
Evaluation of Alternatives	Technical Memorandum # 1 – Evaluation Factors and Criteria, Evaluation of Alternatives, and Preferred Solution & Risk Assessment Matrix	Summer 2026
Preliminary Engineering	Technical Memorandum # 2 – Preliminary Design Summary Report including Hydraulic Modelling Report & 10% Engineering Design Drawings	Fall 2026
Cost Estimate	Technical Memorandum # 3 – Cost Estimate Study	Fall 2026
Consultation and Engagement	Technical Memorandum # 4 – Consultation and Engagement Summary Report	Winter 2026
Considerations for Implementation	Technical Memorandum # 5 – Considerations for Implementation	Winter 2026
Project Completion	Final Project Report	Winter 2026

7.1.1 Evaluation of Alternatives

Although the Ministry of Environment, Conservation and Parks (MECP) confirmed that the project does not require an environmental assessment under the Environmental Assessment Act, the Project Steering Committee elected to undertake an EA-like evaluation of alternative to ensure a transparent, comprehensive, and defensible decision-making process. This approach aligns with good planning practice and supports consistency with provincial policies related to environmental protection, agricultural sustainability, and water resource management.

The first step in this task was the completion of comprehensive water demand assessment by the Consultant team. This analysis informed the anticipated irrigation requirements across the Study Area and the sizing of potential transmission and distribution infrastructure. This analysis quantified both current and projected agricultural water demands and included a consideration of a range of variables. The water demand estimates would then inform the evaluation of alternatives, as they are providing the technical basis for comparing the performance, feasibility, and cost implications of the source water and alignment options. In turn, this information will directly support the application of the evaluation criteria.

Source Water Evaluation:

The next step was to complete a multi-criteria evaluation of various source water alternatives. The three (3) source water options evaluated were:

- Option A: new Lake Ontario intakes serving the full Study Area
- Option B: supply from the Decew Water Treatment Plant (WTP) reservoir conveyed via a gravity-fed transmission main located above the Escarpment; and
- Option C: a hybrid configuration utilizing Lake Ontario intakes for the two western systems combined with a Decew WTP reservoir supply delivered through an existing, abandoned Escarpment crossing that would require retrofit.

The assessment of these source water options was undertaken using a range of evaluation criteria, such as technical feasibility, cost, environmental impact, land ownership, jurisdictional considerations, algae, mussels, and sediment, regulatory/permitting complexities, and capacity constraints.

Based on the multi-criteria evaluation process undertaken, Option A (three intakes from Lake Ontario) was identified as the preferred source water option.

Option A offers the best overall combination of:

- Ability to meet water demand,
- Cost, and
- Minimal:
 - Risk associated with water availability
 - Constructability challenges
 - Environmental impact
 - Land use impacts
 - Permitting complexity

Lake Ontario offers a virtually unlimited, drought-resilient supply with minimal seasonal variability, ensuring the system can always meet peak agricultural irrigation demand, something the other options cannot guarantee due to constraints in the DeCew inlet channel or reliance on aging escarpment infrastructure.

Compared with Options B and C, Option A has significantly fewer environmental, constructability, and land use challenges, as it avoids the highly sensitive Niagara Escarpment, reduces crossings of regulated natural heritage features, and requires the fewest complex multi-agency approvals above the escarpment. It also carries the lowest permitting risk, as the technical studies required for a Category 3 Permit-to-Take-Water

(PTTW) are more straightforward for Great Lakes withdrawals than for the reservoir-based alternatives.

While it does require co-ordination between a range of regulatory agencies, Option A is less complex from a permitting perspective compared to the other two options and the water supply is not limited by another system's water requirements like the other two options area (i.e., DeCew WTP reservoir) both of which have longer permitting and approval paths due to works in the Niagara Escarpment Plan Area. As such, it represents the most implementable and adaptable solution under the current planning assumptions.

Alignment Evaluation:

Following the selection of the preferred source water option, a multi-criteria evaluation of various alignment alternatives was conducted. The analysis considered a range of levels of service and user uptake assumptions to understand how system scale, participation, and phasing influence technical feasibility, cost, and regulatory complexity. The Study Team has also engaged growers to collect feedback on preferred system reach and public priorities for system accessibility and water capacity. Given that governance, funding, and grower participation have not yet been confirmed, multiple scenarios were developed to reflect plausible implementation pathways.

With the consideration of the potential participation locations, infrastructure locations, supply security / operating resiliency, overall capital investment and topography of each system, the following three (3) network options were developed:

- Option A: Basic Branch System
- Option B: Basic Looped System
- Option C: Full Coverage Looped System

These system layout options vary primarily by the extent of trunk and lateral pipeline infrastructure (number of agricultural properties reached), assumed percentage of properties connecting to the system, and the degree of phasing and expandability. All three alignment assume the recommended source water option. The sizing of pumps and watermains for each option is based on the irrigation demand associated with the properties serviced by that option as well as maintaining the minimum requested pressure of the system (i.e. 40 psi).

Prior to a recommendation on the preferred alignment alternative, the Project Team has initiated an analysis of additional alternatives to ensure a broad range of feasible options and their associated impacts on irrigation system performance, constructability, and overall project costs are fully considered.

Progress – on track: the analysis of additional alternatives is underway and will continue to be refined as additional technical analysis and stakeholder input become available. The results of this analysis will inform the recommended alternative alignment that will move into the preliminary design phase. The outcomes of this task, including the identification of the preferred source water and alignment alternative will be documented in Technical Memorandum #1 and made available to Working Committee members.

7.1.2 Preliminary Design

Following the selection of the preferred alternative a 10% engineering design process will be undertaken.

Progress – on track: With the completion of the source water alternatives analysis, preliminary engineering design has commenced for the Lake Ontario pumping stations and other infrastructure components that are not expected to be affected by the selection of the preferred alignment alternative. Baseline modelling of the various alignment options is also underway and will be finalized following the selection of a preferred alignment. The results of this work will be documented in Technical Memorandum #2.

7.1.3 Cost Estimate

A Cost Estimate Study will be completed based on the 10% engineering design.

Progress – on track: cost estimate study to be completed based on the 10% engineering design of the system. The results of this work will be documented in Technical Memorandum #3.

7.1.4 Consultation and Engagement

A comprehensive ongoing consultation and engagement program is being undertaken in support of the Study. At the conclusion of the Project, a consultation and engagement summary reports will be prepared as Technical Memorandum # 4. This memo will 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.

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.

Progress – on track: the consultation and engagement program is ongoing. A summary of the formal consultation and engagement events undertaken in support of the Study to date includes:

7.1.4.1 Risk Assessment Workshop

A Risk Assessment Workshop was held on October 30, 2025. The purpose of the workshop was to identify, evaluate, and prioritize potential risks that could impact the project planning and implementation. The session brought together project staff, Steering Committee members, technical consultants, and key stakeholders to review project components, discuss uncertainties, and consider both environmental and operational factors. Participants collaborated to assess the likelihood and potential consequences of various risks, and to identify strategies for mitigation and management.

7.1.4.2 Project Kick Off Information Session & Public Information Centre

The Project Steering Committee with the support of Niagara Region staff hosted a 'Project Kick Off Information Session' on July 23, 2025 at Vineland Growers Office in Jordan Station. The purpose of the session was to introduce the project and gather contact information from local stakeholders. Invitations for the event were sent via mail to all agricultural landowners within the Study Area.

During the event, attendees completed contact cards to express interest in the Study or irrigation opportunities. The open house format encouraged informal, one-on-one conversations, with Niagara Region staff and Steering Committee members available to answer questions and build relationships. This session was a vital first step in connecting with stakeholders, gathering feedback, and laying the groundwork for ongoing engagement.

7.1.4.3 Public Information Centre

On the evening of December 3, 2025, a Public Information Center (PIC) was held at Balls Falls Conservation Area in Lincon. The purpose of the PIC was for interested members of the public to learn about the importance of irrigation in Niagara and to provide feedback on the problem and opportunity statement, evaluation criteria, and a high-level list of alternatives under consideration. The PIC was advertised in the print and electronic version of several local newspaper serving the Study Area.

The PIC was hosted as an open house drop-in event featuring display boards and a survey. The PIC boards and other relevant material was made available on the Project website.

7.1.4.4 Agricultural Workshop #1 (December 3, 2026)

On the afternoon of December 3, 2025, an in-person workshop was held at Balls Falls Conservation Area in Lincoln. The purpose of the workshops was for growers, producers, greenhouse operators, and agricultural landowners who had an interest in irrigation to receive updates regarding technical work completed since the kick-off session in July 2025. The workshop was also an opportunity provide input on the problem and opportunity statement, water demand, evaluation criteria and high-level list of alternatives under consideration. Invites for the workshop were sent via email to the Project contact list. Additionally, the workshop was advertised in the print and digital newspapers serving the Study Area for in combination with the PIC advertisement.

The workshop included a presentation by the consulting team (AECOM) and interactive, roundtable discussions. Over 100 people attended the workshop and provided feedback through a Mentimeter Poll. Steering Committee members were also seated at each table to facilitate discussion and record feedback.

7.1.4.5 Virtual Agricultural Workshop #1

A virtual workshop was held on January 8, 2026 for those that were unable to attend the December 3, 2025 in-person workshop. The workshop included the same presentation and interactive Mentimeter activities. Approximately 25 people attended the session and provided feedback to the project team on water demand, source water options and alignment configurations.

7.1.4.6 Agricultural Workshop #2 (July 7, 2026)

On the afternoon of July 7, 2026, an in-person workshop is scheduled at Balls Falls Conservation Area in Lincoln. The purpose of the session is for growers, producers, greenhouse operators, and agricultural landowners who have an interest in irrigation to receive updates regarding technical work completed since the previous workshop in December 2025 and to provide input towards the finalization of the preferred alignment

alternative. The session will include a presentation and interactive discussions similar to the December 3rd, 2025 session.

7.1.4.7 Indigenous Engagement

Regional staff have been actively engaging with Indigenous communities and organizations throughout the project. Initial outreach began in May 2025 with letters sent to six Indigenous groups, inviting them to participate on the Project's Working Committee. A second round of letters was sent later in the year to follow up with interested groups and to provide additional information about opportunities to be involved.

In addition, Niagara Region staff have offered one-on-one meetings with communities and organizations to introduce the project, share preliminary details, and hear early feedback. These conversations have helped staff better understand community priorities and perspectives and have provided a foundation for ongoing dialogue.

7.1.4.8 Agency Consultation

Niagara Region staff and the Consultant have been meeting and corresponding with a range of regulatory agencies and partner organizations as part of the Study. These meetings, which number more than 30 to date, have included both introductory sessions with new stakeholders and regular updates with established contacts. The conversations have covered a mix of topics, from project scope and timelines to technical and environmental considerations, allowing staff and agency representatives to share perspectives and clarify expectations.

These meetings have been collaborative, often involving detailed discussions about potential challenges, data needs, and ways to align the project with ongoing initiatives or regulatory requirements. This ongoing dialogue has helped keep all parties informed and has contributed to building a shared understanding of the project's goals.

By keeping these lines of communication open, staff are able to navigate the complexities of working across multiple agencies and jurisdictions more effectively. This process allows staff and agencies to refine approaches, anticipate questions, and identify opportunities for coordination that might not have been apparent in separate discussions.

7.1.5 Considerations for Implementation

The outcomes of the 10% engineering design will inform decision-making for subsequent project phases and provide a clearer basis for planning and approvals. These considerations will be documented in Technical Memorandum # 5. Further details and findings from this work will be documented in the Final Project Report, scheduled for late-2026.

Progress – on track: this task will be completed in the second half of 2026.

7.2 Niagara-on-the-Lake Assignment

Deliverables for the Niagara-on-the-Lake Assignment will include a Consolidated Irrigation System Engineering Report, Design Drawings, Operations Manuals, and Tender Documents. A Consultation and Engagement Program is ongoing over the course of the project.

Table 2: Timelines for the Niagara-on-the-Lake Assignment

Task	Deliverable	Timeline
Consolidation of the Town's three Existing Irrigation Reports	Consolidated Irrigation System Engineering Report	Summer 2026
Preparation of Detailed Design Drawings	Engineering Design Drawings	Fall 2026
Preparation of Operations Manual	Operations Manual	Fall 2026
Preparation of Tender Documents	Tender Documents	Winter 2026
Consultation and Engagement	Consultation and Engagement Summary Report	Ongoing

7.2.1 Consolidated Irrigation System Engineering Report

This task has included a comprehensive review of background documentation, completion of required field investigations, and preparation of a consolidated engineering assessment addressing service level gaps, current and future water demands, capacity improvements, operational constraints, and system optimization opportunities. System-specific requirements for ABL, Four Mile Creek, and Harrison/Routh have been addressed, including design concepts, condition assessments, constructability considerations, and order-of-magnitude cost estimates for proposed upgrades and expansions.

The engineering assessment identified a series of recommendations aimed at improving the reliability, efficiency, and long-term sustainability of the Town's irrigation systems. These recommendations include operational, maintenance, and capital improvement measures intended to address existing service level gaps, improve water conveyance

and supply, enhance system resilience, and prepare the irrigation network to meet future demands.

Recommended system-wide initiatives include focused maintenance activities such as vegetation management, ditch cleanouts, culvert maintenance, and channel rehabilitation to improve hydraulic performance throughout the irrigation network. The assessment also recommends the development of a comprehensive irrigation pond inventory to support future operational planning and asset management activities. In addition, the establishment of a dedicated capital reserve fund is recommended to support ongoing repairs, rehabilitation, and replacement of critical irrigation infrastructure.

Several capital projects were also identified to address key system constraints and improve water delivery throughout the irrigation network. These include the construction of new watermains along Eastchester Avenue/Line 6 Road and Line 9 Road, upgrades to the Eastchester and Dee Road Pumping Stations, repairs to the OPG and Carlton Street siphons, and upgrades to the Whirlpool Pumping Station. Collectively, these projects will improve water conveyance, increase pumping capacity, enhance operational flexibility, and strengthen the overall resilience of the irrigation system.

Building on the findings and recommendations of the engineering assessment, a series of alternative solutions were presented to the Town's Irrigation Committee for consideration. Following a review of the alternatives, the Irrigation Committee support the recommendation four preferred solutions to advance into detailed design.

Progress – nearing completion: The engineering assessment has been completed and is currently undergoing final review and refinement. Remaining work is focused on finalizing the report documentation, incorporating comments received through the review process, and preparing the final deliverables. Completion of this task is anticipated in mid-2026.

7.2.2 Engineering Design Drawings

The following four capital projects have proceeded to the detailed design phase of the Assignment:

- New Eastchester Avenue / Line 6 Road Watermain
- Eastchester Pumping Station Upgrades
- Dee Road Pumping Station Upgrades
- New Line 9 Road Watermain

These capital projects were selected from the broader set of system recommendations based on their ability to address key conveyance constraints, improve pumping capacity, enhance operational flexibility between irrigation systems, and strengthen

overall system reliability. The following sections provide a summary of each capital project.

New Eastchester Avenue / Line 6 Road Watermain

This capital project involves the installation of a new 750 mm diameter watermain along Eastchester Avenue and Line 6 Road, generally following existing channel alignments. The new conveyance infrastructure is intended to address existing supply and conveyance limitations within the ABL irrigation system while improving the movement of water through the Eastchester corridor. By increasing the capacity and reliability of water transfers, this capital project will increase the volume of water to the ABL system and could provide additional water to the Four Mile Creek system when required.

Eastchester Pumping Station Upgrades

The Eastchester pumping station upgrade will replace the existing pumping infrastructure at Eastchester to significantly improve water delivery to the ABL irrigation system. The proposed works include the installation of a new pump and watermain, intake screening with automated airburst cleaning technology, and upgraded electrical and control systems, including variable frequency drives. The improvements will increase the pumping station capacity to approximately 0.50 m³/s while enhancing operational efficiency, reliability, and system control. Together with the new Eastchester Avenue / Line 6 Road watermain, these upgrades will substantially improve the Town's ability to convey water into the ABL irrigation system and meet future irrigation demands.

Dee Road Pumping Station Upgrades

The Dee Road pumping station upgrade will increase pumping capacity and improve system redundancy through the installation of a third 200 HP pump. The station was originally designed with sufficient space and electrical capacity to accommodate future expansion, making this upgrade a cost-effective means of improving system performance. The additional pump will enhance water supply to the Four Mile Creek and Harrison/Routh systems while providing greater operational flexibility during drought conditions, maintenance activities, or unexpected outages.

Line 9 Road Watermain

This capital project involves the construction of a new 750 mm diameter watermain along Line 9 Road to convey water from the upgraded Dee Road Pumping Station to the Harrison/Routh and Four Mile Creek systems. This capital project is closely linked to the Dee Road pumping station upgrade and is intended to maximize the benefits of the increased pumping capacity. The new watermain will improve water transfers between

irrigation systems, increase operational flexibility, and enhance the Town's ability to deliver water where it is needed most.

Progress – on track: Detailed design drawings for the four selected capital projects are currently being advanced. Coordination with the Town, Region and relevant stakeholders is ongoing to confirm design assumptions, resolve technical constraints, and ensure alignment with system operational requirements. This work is progressing on schedule, with completion of the detailed design drawings is anticipated in late 2026.

7.2.3 Operations Manual

Concurrently with detailed design, the creation of a new operations manual(s) that incorporates all infrastructure upgrades will be developed. Further details will be presented in the Final Report in early 2027.

Progress – on track: to be completed following the detailed design process.

7.2.4 Tender Documents

Preparation of tender documents will proceed following completion of the detailed design phase. This task will be undertaken in accordance with the Town of Niagara-on-the-Lake's standards and will include the development of tender-ready documentation, including schedules of quantities and cost estimates prepared in accordance with accepted industry practices. Further details will be presented in the Final Report in early 2027.

Progress – on track: to be completed following the detailed design process.

7.2.5 Consultation and Engagement Summary

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.

Progress – on track: the consultation and engagement program is ongoing. A summary of the formal consultation and engagement events undertaken in support of the Assignment to date includes:

7.2.5.1 NOTL Irrigation Committee Meetings

November 12, 2025

AECOM with the support of Town and Region staff presented to the NOTL Irrigation Committee on November 12, 2025 to introduce the detailed design project and facilitate a focused, collaborative discussion. As part of the presentation, AECOM outlined a comprehensive range of potential solutions and design considerations for the Committee's review. This broad set of options enabled the Committee to evaluate alternatives, provide local insight, and collectively identify key priority areas. The resulting list of priorities will help guide the detailed design and ensure the project is aligned with local needs, operational realities, and stakeholder expectations.

March 4, 2026

On March 4, 2026, the Project Team presented to the Town's Irrigation Committee as part of the ongoing consultation and engagement process for the irrigation systems assessment and detailed design work. The purpose of the meeting was to present and discuss the evaluation of system improvement options and to obtain Committee input on priority areas for advancement.

AECOM presented both a long list and a short list of potential recommendations and capital improvement opportunities developed through the engineering assessment. The discussion focused on the relative benefits, constraints, and implementation considerations associated with each option, with particular emphasis on identifying projects that would deliver the greatest system-wide benefit while remaining feasible within the scope and objectives of the detailed design phase.

Through this engagement process, the Committee provided feedback on technical priorities, operational needs, and system performance objectives. This input directly informed the identification of key projects to be advanced into detailed design.

7.2.5.2 Survey

As part of stakeholder engagement for the NOTL project, a survey was developed and distributed to registered irrigation users to gather detailed information on existing irrigation practices and future needs. The survey was circulated via email and invited users to provide feedback by January 9, 2026.

Survey topics included property owner information, current irrigation system type, irrigation schedules, estimated water use, and willingness to switch to alternative irrigation methods. The information collected will be used to support ongoing technical analysis and future stages of the project. current operations and future water demand.

8 Other Project Consultation and Engagement

In addition to the formal consultation and engagement events, there have been numerous opportunities for other consultation and engagement on the Project, including:

8.1 2025 Ontario Fruit and Vegetable Convention

The Project Steering Committee hosted and staffed a booth at the 2025 Ontario Fruit and Vegetable Convention in Niagara Falls. The booth served as an opportunity to engage directly with growers from across the Study Area who might be interested in participating in the project. Staff members spoke with attendees about the project's goals, scope, and anticipated timelines, and provided early insights into the work underway. In addition, the booth allowed the team to answer questions, gather feedback, and build awareness among stakeholders. A key objective of this outreach was to collect contact information from growers who wished to stay informed or become involved in future project activities.

8.2 International Plowing Match (IPM)

From September 15 to 20, 2025, Niagara Region hosted a booth at the International Plowing Match as part of its ongoing efforts to engage the agricultural community and raise awareness about the Project. Staff were available throughout the event to speak with attendees, explain the project's objectives, and answer questions from farmers, industry representatives, and local residents. The booth provided an opportunity to share information, gather informal feedback, and connect with individuals who expressed interest in staying informed or participating in future project activities.

8.3 Niagara College Guest Speaking

Niagara College's Environmental Management and Assessment Program invited Niagara Region staff to deliver a presentation about the Project on November 19, 2025.

During the session, staff provided an overview of the project's purpose, current progress, and anticipated next steps.

8.4 Canadian National Committee on Irrigation and Drainage Webinar

Niagara Region staff hosted a webinar for the Canadian National Committee on Irrigation and Drainage (CANCID) on December 10, 2025. The session provided an opportunity to present an overview of the Project to a national audience of professionals involved in irrigation, drainage, and water management. Staff discussed the project's objectives, current progress, and anticipated next phases, while also addressing questions from participants and sharing insights relevant to broader industry practices. The webinar helped increase awareness of the Project beyond the local Study Area and fostered connections with experts and organizations engaged in similar work across Canada.

8.5 2026 Ontario Fruit and Vegetable Convention

The Project Steering Committee hosted and staffed a booth at the 2026 Ontario Fruit and Vegetable Convention in Niagara Falls. The booth provided an opportunity to engage directly with growers and other interested stakeholders from across the Study Area and share an update on the progress of the project. Staff members discussed work completed to date, key findings, and upcoming project milestones, while outlining anticipated next steps. In addition, the booth allowed the project team to answer questions, gather feedback, and better understand stakeholder perspectives on the project as it advances. A key objective of this outreach was to ensure stakeholders remained informed and had an opportunity to provide input to help guide future project activities.

8.6 Art In Action: Climate Symposium Panel Discussion

Niagara Region staff participated in a panel discussion at the Art in Action: Climate Symposium on January 28, 2026, focused on the topic of water scarcity in Niagara. The panel provided an opportunity to engage with community members and other interested stakeholders while raising awareness of the project and its relevance to climate change adaptation and water resource management. Staff members discussed the project's objectives, current progress, and anticipated next steps, while answering questions from participants and sharing insights on the challenges and opportunities associated with long-term water sustainability in Niagara. The event also provided an opportunity to hear stakeholder perspectives and foster broader discussion on water security and climate resilience within the region.

8.7 Niagara Engineering Week Luncheon

Regional Staff delivered a presentation at the Niagara Engineering Week Luncheon on the Niagara Irrigation Initiative Project. This was a project success as it contributed to broader awareness of the initiative within the engineering community, fostered cross-disciplinary dialogue, and created an opportunity to share project objectives, challenges, and early insights with professionals outside of the immediate project team. It also helped build relationships that may support future collaboration and knowledge exchange as the Project advances.

8.8 Media Releases

On June 9, 2025, a news release was finalized and issued to announce that up to \$1.8 million in total funding had been secured to advance the project. The announcement highlighted the financial support that will enable continued planning, engagement, and implementation activities. By sharing this information publicly, Niagara Region provided transparency about project resources and demonstrated the commitment of funding partners to support the initiative. The release also helped raise awareness of the project among stakeholders, community members, and the broader public.

On August 11, 2025 the provincial government announced a major investment of \$41 million for irrigation infrastructure in the Niagara Region to support hundreds of farms and agricultural businesses across the area. This funding represents a significant step forward for the Niagara Irrigation Initiative and is expected to have a transformative impact on the region's agricultural sector. The funding provides the financial backing needed to expand and modernize irrigation systems, improve water reliability for growers, and strengthen the region's resilience to drought and extreme weather events. It is a significant step forward for the Niagara Irrigation Initiative, providing the financial backing needed to expand and modernize irrigation infrastructure, improve water reliability for growers, and strengthen the region's agricultural resilience in the face of climate variability.

9 Next Steps

A Final Report will be prepared by February 26, 2027 to provide a comprehensive summary of the Project, including progress achieved relative to the Project Charter, outcomes of each initiative, and recommended next steps moving forward.