



Schedule C Municipal Class Environment Assessment for the Nobleton Wells 2 and 5 Upgrades Project - Addendum Report

Nobleton Wells 2 and 5 Facilities

Project Number: 22036

Submitted by:

ETO Solutions Corp. o/a ETO Engineering
9030 Leslie Street, Unit 229
Richmond Hill, ON
www.etoengineering.ca

Contact Personnel:

Johnny Pang, P.Eng., PMP
Tel: 289.599.7755 x 206
Email: Johnny.Pang@etoengineering.ca

Date and Time:

August 13, 2025

Executive Summary

The Regional Municipality of York (York Region) initiated the Nobleton Wells 2 and 5 Upgrades project in accordance with the Schedule C Environmental Assessment (Class EA) completed in 2021 by Black & Veatch. The Class EA developed a recommended plan to increase the quality and quantity of the water supply at Nobleton, located in the Township of King.

The recommended plan included upgrades at two existing Regional water facilities. Upgrades at the Well 2 facility included an increase in capacity, new building expansion to house associated electrical equipment, and a new chlorine contact tank. Well 5 facility upgrades consisted of a new well (Well 6), and addition of an oxidation-filtration process for the removal of iron and manganese to improve the aesthetic water quality.

Since the Class EA completion, the following changes were proposed:

- Convert Well 5 facility into a centralized iron and manganese treatment facility with a treatment capacity of 102 L/s and provisions for future expansion.
- Increase footprint of the Well 5 building expansion to house the new treatment equipment.
- Convert Well 2 facility into a raw water pumping station and increase Well 2 capacity from 34 L/s to 41 L/s.
- Construct new raw watermain to connect Well 2 and Well 6 to the new Water Treatment Plant, including provisions for a future well connection for redundancy.
- Increase the capacity of the new Well 6 from 34 L/s to 41 L/s.

In view of the changes described above, an addendum to the original Class EA is required to inform stakeholders on the revised preferred solution, potential impacts, and mitigation measures. The Class EA Addendum compares the preferred solution from the original Class EA and the revised preferred solution based on the criteria identified in the original Class EA

Following the completion of the 30-day public review process and subsequent 30-day period during which concerns may be forwarded to York Region, provided that no Section 16 Order requests are received, York Region can proceed with the design and implementation of the revised solution described herein.

The Nobleton Wells 2 and 5 Upgrades project is planned to finish in 2028. Major milestones with anticipated dates for the project are presented below:

- Detailed design to be completed by Q4 of 2025
- Four months of procurement and issue for tender by Q1 of 2026
- Construction of the Well 5 treatment facility expansion, and iron and manganese filters commissioning by Q4 of 2027
- Construction of the remaining upgrades by Q2 of 2028

Table of Contents

Executive Summary

Table of Contents.....	i
Appendices.....	i
1.0 Introduction.....	1
1.1 Background.....	1
1.2 Purpose of Addendum.....	2
1.3 Overview of Addendum Process and Requirements	2
2.0 Nobleton Wells 2 and 5 Facilities	3
2.1 Description of Class EA Preferred Solution	3
2.1.1 Revised Preferred Solution.....	3
2.2 Alternative Solutions	6
2.3 Alternatives Evaluation.....	6
2.4 Environmental Impacts and Mitigation Measures of the Preferred Solution	7
2.4.1 Description of the Environment Potentially Affected	7
3.0 EA Addendum Consultation.....	13
3.1 Stakeholder Consultation.....	13
3.2 Indigenous Communities Consultation.....	14
4.0 Conclusions and Recommendations.....	15
4.1 Project Timeline.....	15

Appendices

Appendix A – Evaluation Matrix

Appendix B – Investigative Studies

B.1 – Geotechnical Investigation Report

B.2 – Hydrogeological Impact Assessment Report

B.3 – Archeological Assessment Report

B.4 – Natural Heritage Evaluation

B.5 – Evaluation of Archaeological Potential for: Nobleton Well #2 Upgrades (Raw Watermain)

B.6 – Heritage Impact Assessment Addendum

Appendix C – Summary of Correspondence

C.1 – Summary of Outreach to Key Stakeholders

C.2 – Summary of Responses and Comments

1.0 Introduction

ETO Engineering (ETO) was retained by The Regional Municipality of York (York Region) to implement upgrades at the Nobleton Well 2 and Well 5 facilities. The upgrades project was created to design and construct the preferred solution identified in the Municipal Class Environmental Assessment (MCEA) *Schedule "C" Environmental Study Report* completed by Black & Veatch dated April 11, 2021. This document is an addendum to the original Class EA and provides details on the revised preferred solution.

1.1 Background

According to the York Region Water and Wastewater Master Plan published in 2022, the Nobleton community is expected to grow up to 10,800 in population by 2041. Nobleton's water and wastewater systems do not have the capacity required to sustain the projected growth.

The Class EA evaluated the water and wastewater system within the area of interest in Figure 1-1, identified a problem statement, and provided alternative solutions for both water and wastewater systems. This addendum will focus on the water system solutions.

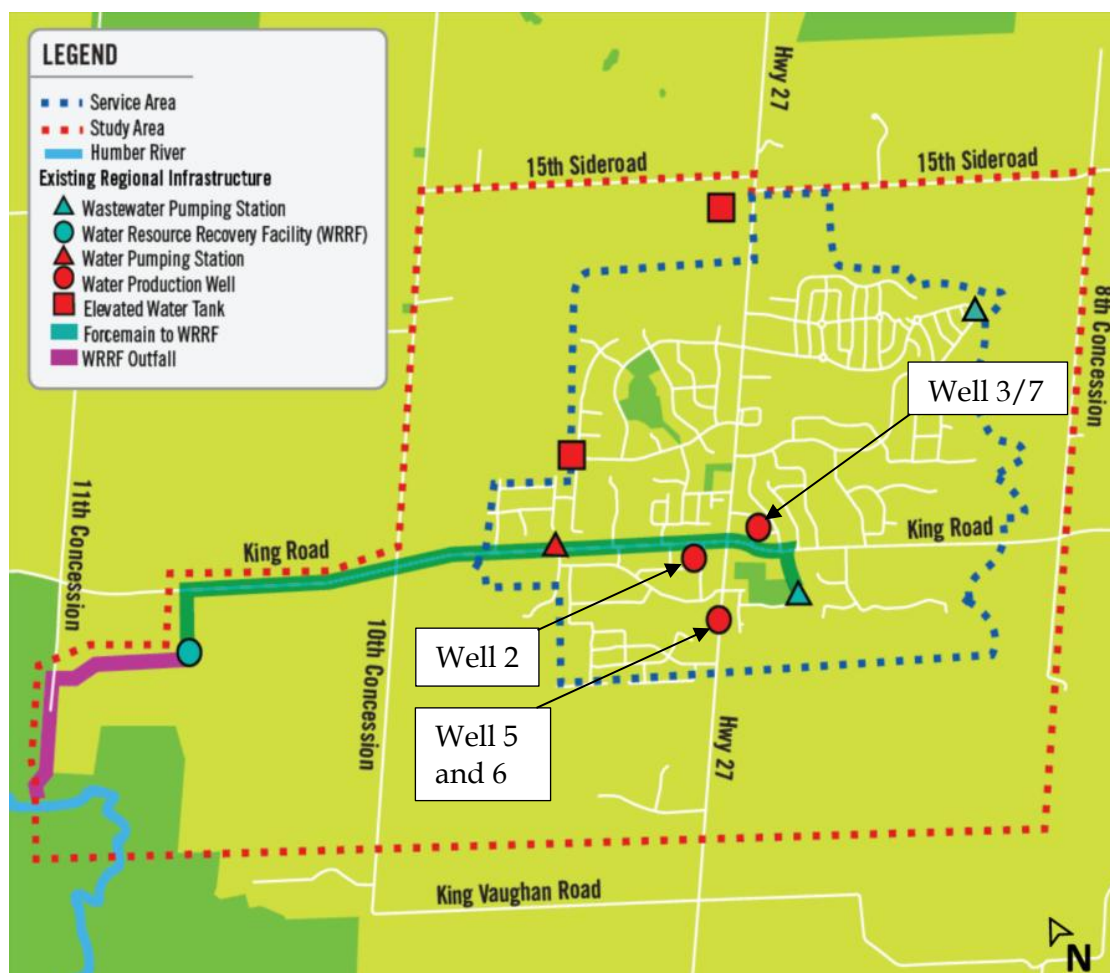


Figure 1-1: Original Class EA Study Area

Four (4) alternative water system solutions were compared under various categories and the following approach was selected as the preferred alternative:

- Water Supply Deficit;
 - Increase the capacity of Well 2.
 - Drill a new well (Well 6) at Site H (Well 5 Facility).
- Storage Requirements;
 - Increase supply further to offset the storage deficit.

1.2 Purpose of Addendum

The primary objective of the Nobleton Wells 2 and 5 Upgrades project is to increase the capacity at two (2) separate facilities to meet the projected demand. Other objectives include increasing the iron and manganese treatment capacity, and providing standby power.

Currently, each well facility houses its own iron and manganese removal system in the form of sodium silicate dosing. Since the completion of the original Class EA in 2021, numerous resident complaints lead to a York Region evaluation of the existing iron and manganese treatment, resulting in a York Region decision to upgrade treatment method to iron and manganese filtration. This upgrade will improve the removal of these naturally occurring aesthetic parameters from the water provided through the York Region's Nobleton Drinking Water system.

The following changes are proposed to the original preferred solution:

- Instead of providing iron and manganese removal at each well site separately via chemical dosing and filtration, implement a more efficient and reliable centralized filtration system.
- Centralized filtration system will be installed at the Well 5 facility where the available footprint is the largest among the three (3) Nobleton well facilities, leaving more room at the other facilities for any potential future upgrades.
- A raw water watermain will be installed to connect the Well 2 facility to Well 5. Raw water will be transferred to Well 5 facility where it will be treated.
- Capacity of Wells 2 and 6 will be increased from 34 L/s to 41 L/s to cover in-plant use for filter backwash cleaning.
- Measures will be taken for a future connection to receive raw water from a future well into the centralized iron and manganese filtration system.

The following sections will include a comparison between the original and revised preferred solutions. The criteria will consist of the same criteria used in the original Class EA.

1.3 Overview of Addendum Process and Requirements

An addendum to the original Class EA is required to inform the stakeholders of the significant changes to the preferred alternative solution described in the original Class EA. In accordance with Section A.4.3 of the MCEA document, an addendum to a Class EA is required to provide the following information:

- The circumstances necessitating the change;
- The environmental implications of the change; and

- What, if anything can and will be done to mitigate any negative environmental impacts.

A Notice of Addendum will be issued to the public and the Addendum Report will be filed for a 30-day public review and comment period. During this time, only the matters addressed by the addendum are open for public review.

2.0 Nobleton Wells 2 and 5 Facilities

2.1 Description of Class EA Preferred Solution

The original Class EA proposed a capacity increase at Well 2 from 22 L/s to 34 L/s by replacing the existing well pump. A new standby power system, new electrical distribution and communication system are required along with a building expansion to house the new equipment as part of the conceptual design. No additional chemical dosing is required, as chlorine and sodium silicate dosing are maintained on site to provide the mandatory water treatment. However, new chlorine contact tank will be required to provide the chlorine contact time required for the additional capacity.

At the Well 5 facility, a new 34 L/s well installation (Well 6) is proposed, which prompts a set of additional upgrades. Building expansion is deemed necessary to house the piping, electrical, and control equipment. A new chlorine contact tank is required to provide contact time for the additional capacity. Mentioned as a provisional item in the original Class EA, iron and manganese filters have been added to the design by York Region based on their superior efficiency and reliability when compared to the existing sodium silicate dosing method. The new building expansion to be sized adequately to house the new set of iron and manganese filters.

2.1.1 Revised Preferred Solution

Revised solution identified through this Addendum consists of the following changes to the design described above:

- Removal of chlorine and sodium silicate dosing from Well 2;
- No building expansion required at Well 2, space cleared by the removed equipment to be partially used for new electrical equipment;
- Increased building expansion to house higher capacity iron and manganese filters at Well 5 facility capable of providing the future demand of 91.8 L/s to the Nobleton drinking water system. New building expansion will serve as a centralized treatment plant;
- Iron and manganese filter capacity to have provision for a future well connection;
- Increase water taking of Well 2 and Well 6 from 34 L/s to 41 L/s to account for additional flow required for in-plant water use while maintaining treated water capacity to public;
- Eliminate the need to replace chlorine contact tanks at both well facilities, disinfection requirements are covered by the new clear well within the treatment facility, existing chlorine contact tank will be removed;
- New raw watermain connecting Well 2 and Well 5 facilities;
- Provision for a new watermain to connect a future well to the Well 5 facility.

In the original Class EA, 91.8 L/s was identified as the required firm capacity to meet future demand. To keep the firm capacity as identified, the treatment design capacity from the upgraded Well 5 facility is required to be 91.8 L/s. Wells 5, 6, and 2 will need to have a combined groundwater taking flow of 102 L/s. The 10% difference in groundwater from the wells and treated water will be for in-plant use including filter-to-waste and filter backwash operations.

Table 2-1 below shows the existing, proposed Class EA and Addendum capacities for each raw water well. Comparison between the Class EA and the Addendum capacities show that firm capacity has not changed. However, more raw water is required to provide the same target firm capacity due to the in-plant water use requirement.

Table 2-1: Class EA and Addendum Capacities

System	Existing (L/s)	Original Class EA (L/s)	Addendum (L/s)
Well 2	22.7	34	41
Well 5	28.9	28.9	28.9
Well 6	N/A	34	41
Firm Capacity	51.6	91.8	91.8
Raw Water Required to Provide Firm Capacity	51.6	91.8	102

Figure 2-1 shows a flow diagram of the proposed revised solution. Iron and manganese removal treatment consists of five (5) 3.5m diameter filter vessels equipped with an adsorptive media. Filtration will be complemented with the addition of chlorine gas. Water from the Nobleton Wells will be stored in a raw water well which provides a hydraulic break. The stored raw water will be pumped to the iron and manganese filters and the treated effluent will be directed to a clear well. The clear well will be sized to provide sufficient volume for chlorine contact time. High lift pumps will be responsible for treated water distribution. The iron and manganese filters will be regularly backwashed to maintain peak performance. Backwash pumps will supply treated water from the clear well into the filters. Backwash waste will be discharged to sanitary sewer. The additional increase in the Well 2 and 6 water taking limit will allow for enough backwash supply storage at maximum capacity.

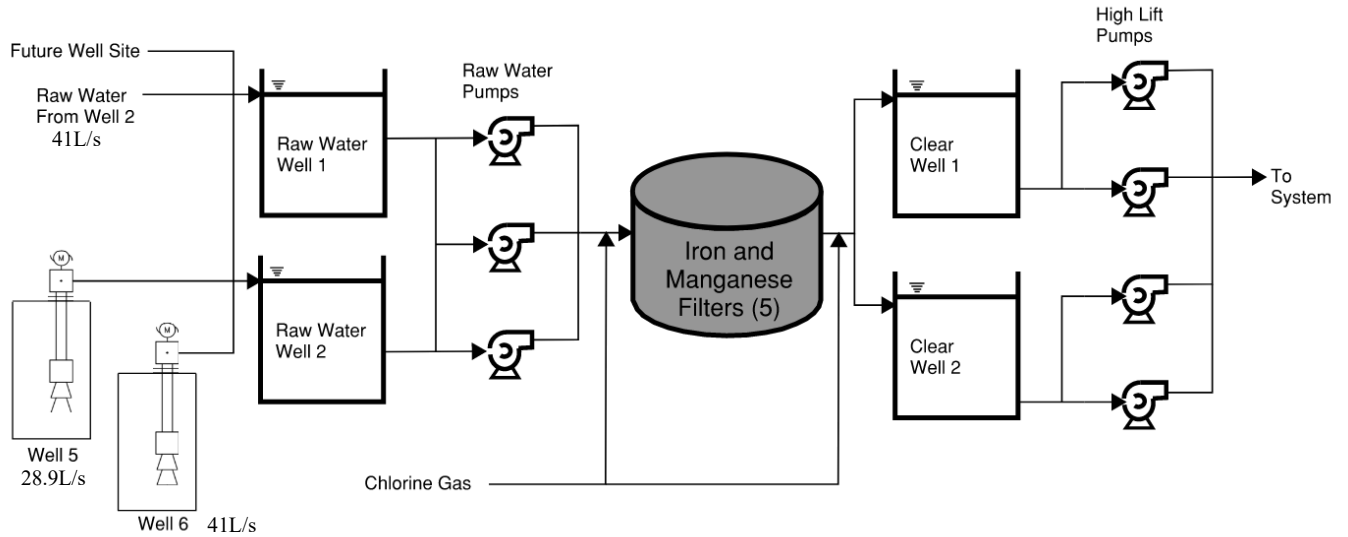


Figure 2-1: Proposed Solution Flow Diagram

Although not part of the original Wells 2 and 5 Upgrades project, the new raw watermain connecting Well 2 discharge to new Well 5 building expansion is included in the revised solution. Figure 2-2 below shows the conceptual routing of the new raw watermain that connects the two facilities of interest.



Figure 2-2: Conceptual Well 2 Raw Watermain

It is important to note that a connection from the existing Well 3/7 is not considered as part of the Nobleton Wells 2 and 5 Upgrades project, provisions will be put in place to facilitate a future

connection to a future well site. Implementing a centralized iron and manganese treatment solution provides enough capacity to treat Nobleton's groundwater resources at the Well 5 facility which will be renamed as the Nobleton Water Treatment Plant (Nobleton WTP) following the upgrades.

2.2 Alternative Solutions

The following alternatives are evaluated as part of this addendum:

- Alternative 1: Solution provided in the original Class EA which includes individual, on-site treatment for iron and manganese. Building expansion and chlorine contact tank replacement for each facility.
- Alternative 2: Revised solution presented in this EA Addendum, which consists of a centralized iron and manganese treatment facility through the installation of filters at Well 5 facility. Well 2 to be connected to Well 5 facility via new raw watermain. Chlorine contact tanks to be removed, and no new building expansion required at the Well 2 facility.

Since both alternatives are located within the limits of Nobleton water system, there were no changes to the study area or existing environment.

2.3 Alternatives Evaluation

A detailed evaluation was conducted to compare the two (2) alternatives. The criteria in the original Class EA were used in this evaluation to keep a consistent evaluation matrix between the Class EA and the Addendum. Refer to Appendix A for details on the evaluation.

The evaluation favored Alternative 2 for the following reasons which are broken down into the major categories of the evaluation criteria:

- **Technical:** Although introducing more constructability challenges due to the watermain construction, Alternative 2 provides better redundancy, maximizes the use of existing infrastructure, and requires more concentrated operational and maintenance resources to operate. Well 2 infrastructure will be reused and due to the removal of treatment equipment, Operation & Maintenance requirements at Well 2 site will be minimized.
- **Environmental:** Alternative 2 introduces a greater environmental impact with the inclusion of the new watermain. However, excavation at the Well 2 facility next to the nearby water body is minimized with the omission of the new building expansion from Well 2 design. The mitigation measures aim to minimize the additional negative impact of Alternative 2. Additionally, revised solution aims to facilitate and minimize future construction by undertaking a greater upgrade when compared to Alternative 1. Alternative 2 also introduces greater long term impact due to increased water taking from Wells 2 and 6. Additional impact is required to be analyzed through an extensive monitoring plan during the increase in water taking over the coming years, accompanied by mitigation measures that are periodically updated based on the monitoring results.
- **Socioeconomic:** Short term negative impact of Alternative 2 is higher due to the size and duration of construction around Well 5 facility, but the positive long term community impact of improved water quality is a more significant outcome. Considering the ongoing public complaint about the iron and manganese content in the Nobleton Water Supply

system, anticipated the long term water quality effects outweigh the short term negative effects significantly.

- **Financial:** Alternative 2 is associated with a higher capital cost, and a similar lifecycle cost when compared to Alternative 1. The addition of a centralized treatment system will account for future treatment requirements for the entire system. Iron and manganese filters are more reliable and will reduce the O&M cost over their lifetime. Alternative 2 will also eliminate the need of continuous sodium silicate consumption. However, the instrumentation included in the new design will require yearly maintenance and calibration.
- **Jurisdictional:** Alternative 2 provides significantly more flexibility to accommodate for any future changes including any regulatory changes. The well facilities in Nobleton are on small parcels of land in busy neighbourhoods. Consequently, available footprint for expansion is minimal at the other well facilities. Alternative 2 takes advantage of the space available at the Well 5 facility, and optimizes the use of overall available space. As a result, more space is left for any future equipment/upgrades. On the other hand, this alternative is associated with more potential permits and approvals due to Well 2 and 6 capacity increase and new raw watermain.

2.4 Environmental Impacts and Mitigation Measures of the Preferred Solution

Environmental impact of the revised solution has been evaluated against the original Class EA solution using the same criteria.

Environmental impact at the Well 2 facility has decreased. However, Well 5 environmental impact has increased due to the new yard piping, and bigger building footprint. Excavation depth and area has increased compared to the preferred solution in the original Class EA. The addition of the new watermain increases the impacted area.

Table 2-2 below summarizes the potential impacts that are introduced with the revised solution presented in this addendum. Where the impact has not changed, the mitigation and monitoring measures identified in the original Class EA are still applicable, and will be implemented.

2.4.1 Description of the Environment Potentially Affected

Similar to the original MCEA Study (Black and Veatch, 2021), the proposed upgrades and watermain construction was reviewed to determine the environment potentially affected as defined in the *Environmental Assessment Act* (natural environment, build environment, social environment, economic environment, and cultural environment). In addition to the investigations completed during the original MCEA, several investigations were carried out to support this MCEA Addendum and detailed design in order to provide a more detailed description and understanding of the environment, including:

- Facility Upgrades Geotechnical Investigation;
- Facility Upgrades Hydrogeological Investigation;
- Archeological Assessment;
- Natural Heritage Evaluation.

The investigative studies listed above complement the design and assist with the identification of mitigation measures. Reports can be reviewed under Appendix B.

Table 2-2: Summary of Environmental Impacts and Mitigation Measures of Preferred Solution

Category	Potential Additional Impacts Compared to Class EA Solution	Measures to Mitigate Potential Additional Impact	Monitoring of Potential Impact
Natural Environment			
Vegetation and Wildlife	Increase in construction area with the new raw watermain. Construction activities are no longer restricted to property limits. Raw watermain will be within the previously developed. MECP was consulted on the endangered species identified around the Well 5 facility. Construction activities are not expected to negatively impact endangered species habitat.	Pre-construction survey will be completed to record site conditions prior to start of work. Timing of the construction activities will be specified to minimize wildlife disturbance. Erosion and sediment control measures will be put in place to physically separate the construction area and prevent any debris from accumulating outside of property limits. Removed vegetation to be replaced with native species. Tree protection measures, and protection fencing will be setup on site based on an Arborist report.	Daily inspections throughout the construction period. Consultation with certified Arborist throughout excavation.
Surface Water Features – Construction Activities	No additional impacts.	Same mitigation measures as the original Class EA. Due diligence check through surface water study.	Daily inspections throughout the construction period.
Surface Water Features – Long Term	Potential increased influence on nearby natural surface water features due to increased water taking from the supply aquifer to 2041.	A phased monitoring program is proposed to identify potential adverse effects to nearby natural surface water features due to long-term municipal well operation and develop an appropriate mitigation plan.	Undertake the following long-term programs: - Enhanced groundwater monitoring program - Groundwater-surface water interaction monitoring program

Aquatic Biota	No additional impacts.	Same mitigation measures as the original Class EA.	Daily inspections throughout the construction period.
Groundwater Resources - Construction	Increased construction dewatering expected due to deeper excavation.	Settling tank with filter bags to be installed during construction to treat the dewatering discharge.	Monitoring of dewatering discharge including flow and water quality measurements with an emphasis on total suspended solids.
Groundwater Resources - Increased Well Water Taking	Potential increased impact due to increased water taking from the supply aquifer.	Desktop impact assessment was completed to identify potential impacts to groundwater users from municipal well operation to 2041. Assessment included conservative well pumping scenarios to predict long-term water drawdown projections. An adaptive mitigation strategy is proposed to proactively minimize any potential impacts to private well users.	Undertake the following long-term programs: • Private well field verification • Enhanced groundwater monitoring program • Groundwater-surface water interaction monitoring program.
Climate Change	Added GHG emissions due to longer construction period.	Revised solution provides a more resilient design with increased onsite storage at the Well 5 facility. Available space is increased at both Well 2 and 5 facilities to house any future equipment to address potential climate change initiatives. Contractor to follow strict emission standards during construction.	Daily inspections throughout the construction period.
Cultural Environment			

Archeological Features	To complement the Stage 1 Archeological Assessment (AA) completed during the original Class EA, a Stage 2 AA was completed for the Well 2 facility. The Stage 2 AA, under Appendix B, encountered no archeological resources. For the new raw watermain, a Criteria for Evaluating Archaeological Potential checklist was completed, and no additional areas of archeological potential were identified.	Same mitigation measures as the original Class EA.	N/A
Natural Heritage Features	Natural Heritage Evaluation was completed for both facilities. Fish habitat was identified as the sole key natural heritage feature within close proximity of the proposed solution.	Mitigation measures include erosion and sedimentation controls during construction. A physical barrier in the form of heavy duty silt fence will be erected between the construction and the key natural heritage feature. Signage will be included clearly indicating construction limits.	Daily inspections during construction to ensure there is no runoff to the natural heritage feature.
Built Heritage Resources (BHRs)	An additional six (6) BHRs were identified to have potential for adverse impacts related to the construction of the new raw watermain.	If vibration monitoring determines adverse impact to BHRs, low-vibration excavation methods are to be implemented, and vibration isolation equipment are to be used.	Vibration monitoring to take place during excavation to ensure the BHRs are not adversely impacted.
Socioeconomic Environment			

Property Impacts	Additional impact due to the new raw watermain.	No new property acquisition is required. Impact to surrounding properties will be kept to a minimum. Access will be established at all times, major excavation activities will be communicated with the nearby residents ahead of time. Traffic control plan will be created and followed during excavation.	N/A
Air Quality	No additional impacts	Same mitigation measures as the original Class EA	N/A
Noise Impact	Increased temporary noise impact due to the new raw watermain.	Same mitigation measures as the original Class EA	Daily inspections and enforcement of <i>MECP Environmental Noise Guideline</i>

3.0 EA Addendum Consultation

As part of the Class EA Addendum process, public consultation with key stakeholders and indigenous communities is required to gather input from all parties who may be potentially affected by the proposed modification to the proposed Nobleton Water Supply System upgrades.

3.1 Stakeholder Consultation

An EA Addendum notification was issued on May 29, 2025 to the stakeholders informing them of the upcoming EA Addendum. A copy of the Notice of Addendum email can be found under Appendix C. Notification emails were issued to all stakeholders listed below, which were also contacted as part of the Class EA. Copies of initial email correspondence are available under Appendix C along with comments received from various stakeholders.

- Nobleton Village Association
- Nashville Area Ratepayers Association
- Concerned Citizens of King Township
- S.T.O.R.M (Save the Oak Ridges Moraine)
- Nobleton Landowners Group
- Ontario Federation of Agriculture
- East Gwillimbury
- Town of Aurora
- Town of Georgina
- Town of Newmarket
- Town of Richmond Hill
- City of Markham
- York Region Council
- King Township Council
- York Region District School Board
- Utilities
 - Hydro One
 - Enbridge Gas Distribution
 - Vianet
 - Rogers
 - YorkNet
 - Prestige Telecom
 - Telus
 - Bell Media
- Metrolinx/GO Transit
- Canadian EA Agency
- Environment Canada
- Ministry of Indigenous Relations and Reconciliation
- Township of King
 - Clerks Department
 - Engineering & Development Department
 - LACAC (Heritage Committee)
 - Planning Department
 - Public Works & Engineering Department
- City of Vaughan
 - City Manager
 - Clerks Department
 - Engineering & Public Works Department
 - Heritage Vaughan Committee
 - Planning Department
 - Water and Wastewater Department
- York Catholic District School Board
- Ministry of Environment Conservation and Parks
- Fisheries and Oceans Canada
- Transport Canada – Ontario Region
- Toronto Region Conservation Authority
- CB Land Management Inc
- Coldwell Banker Ronan Realty Brokerage
- Evans Planning
- Foray Group
- Friends of the Greenbelt Foundation
- Greybrook Realty
- Humphries Planning
- Lennard Commercial Realty, Brokerage

- Ministry of Agriculture, Food and Rural Affairs
- Ministry of Tourism, Culture and Sport
- Ministry of Municipal Affairs and Housing
- Ministry of Natural Resources and Forestry
- Ministry of Economic Development and Growth
- Ministry of Energy
- MHBC Planning
- Orca Equity
- Schaeffers Consulting Engineers
- Tercot Communities
- Treasure Hill
- Tribute Communities
- Urbanworks Engineering Corporation
- Montessori Country School – Nobleton Campus

3.2 Indigenous Communities Consultation

Following Indigenous Communities were contacted during the original Class EA process:

- Alderville First Nation
- Association of Iroquois and Allied Indians
- Beausoleil First Nation
- Saugeen Ojibway Nation
- Chippewas of Georgina Island
- Chippewas of Nawash (Cape Croker)
- Curve Lake First Nation
- Haudenosaunee Confederacy Chiefs Council
- Hiawatha First Nation
- Huron-Wendat Nation
- Kawartha Nishnawbe First Nation of Burleigh Falls
- Mississaugas of Scugog Island First Nation
- Mississaugas of the New Credit First Nation
- Mohawks of the Bay of Quinte
- Moose Deer Point First Nation
- Munsee-Delaware Nation
- Nipissing First Nation
- Six Nations of the Grand River Territory
- Toronto & York Region Metis Council
- Wahta Mohawks (Mohawks of Gibson)

An Addendum notification email was extended to the communities listed above on May 29, 2025 announcing the upcoming Addendum that covers the changes to the Nobleton Water Supply System. A copy of the Notice of Addendum, and initial outreach to Indigenous Communities can be found under Appendix C along with any comments received.

4.0 Conclusions and Recommendations

Following the original Class EA issued in 2021, York Region proposed a change to the preferred water supply and storage solution for Nobleton, situated in the Township of King. This addendum identifies the proposed revised solution that builds on the preferred solution by incorporating iron and manganese filtration at the Well 5 facility and converting it into a centralized treatment plant by connecting the Well 2 facility, and provision for a future well.

The impacts and associated mitigation measures of the proposed change were evaluated against the original Class EA solution. Although the revised solution introduces more short term negative impacts, and a higher capital cost, the long term positive effects lead to an overall beneficial outcome.

Overall future benefits of the revised solution include optimizing the available space at the existing well facilities, addressing the ongoing issue of high iron and manganese concentration in the Nobleton drinking water, providing future flexibility, and facilitating future expansion. The short term negative impacts are aimed to be addressed by the mitigation measures presented in Section 2.4.

4.1 Project Timeline

Below is the anticipated timeline of the Nobleton Wells 2 and 5 Upgrades project given that no Section 16 Order requests are received:

- | | |
|--|--------------|
| • Notice of Addendum | May 29, 2025 |
| • Issuance of Addendum | May 30, 2025 |
| • Permits and Approvals | Q3 of 2025 |
| • Design Completion | Q4 of 2025 |
| • Construction Start | Q1 of 2026 |
| • Water Treatment Plant in Operation | Q4 of 2027 |
| • Completion of Remaining Construction | Q3 of 2028 |