

# The Regional Municipality of York

Committee of the Whole  
Public Works  
May 4, 2023

Report of the Commissioner of Public Works

## Source Water Protection Assessment Report and Plan Amendments

### 1. Recommendations

1. Council endorse proposed amendments to the Toronto and Region Assessment Report, as well as the Credit Valley, Toronto and Region, Central Lake Ontario Source Protection Plan.
2. The Regional Clerk circulate this report to the Chair, Credit Valley, Toronto and Region, Central Lake Ontario Source Protection Committee and Chippewas of Georgina Island First Nation.

### 2. Summary

This report seeks Council endorsement of proposed changes to the Toronto and Region Assessment Report (Assessment Report), and the Credit Valley, Toronto and Region, Central Lake Ontario Source Protection Plan (Plan), as required by regulations under the *Safe Drinking Water Act, 2002* and the *Clean Water Act, 2006*.

Key Points:

- Source Water Protection is a key component of York Region's multi-barrier approach to ensure clean and safe drinking water from surface water and groundwater sources. More information on [Drinking Water Source Protection](#) can be found on [york.ca](http://york.ca)
- To maintain sufficient ground water supply capacity, a new Well 7 was required to augment Nobleton Well 3 drinking water facility.
- Updates to the Assessment Report and Plan are required to include the new Well 7 in Nobleton and make minor policy changes for administrative purposes

### 3. Background

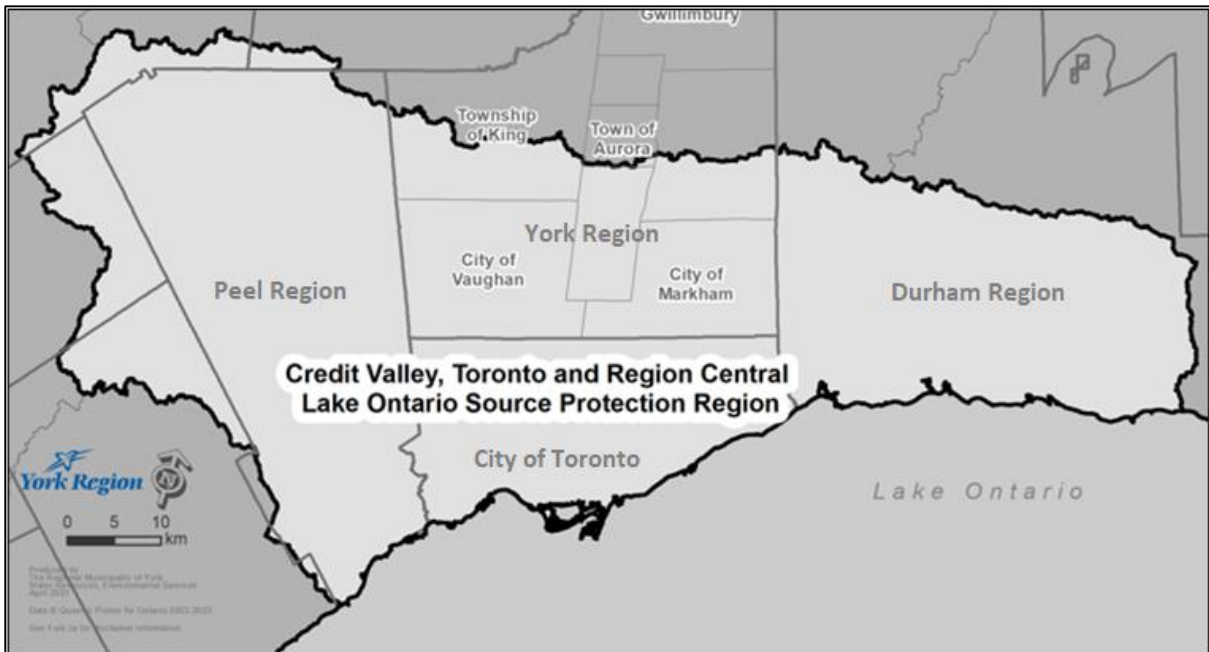
#### Source Water Protection Program protects drinking water

Source water protection is a key component of York Region’s multi-barrier approach to ensure clean and safe drinking water from surface water and groundwater sources. A multi-barrier approach protects drinking water, promotes quality and safety, and informs preventive and corrective actions. Elements of this approach include source water protection, asset management, training and licencing of operators, operational strategies, the Drinking Water Quality Management Standard, system audits and a strict Provincial Inspection and Enforcement Program.

The portion of York Region in the Credit Valley, Toronto and Region, Central Lake Ontario Source Protection Region is shown in Figure 1.

**Figure 1**

Credit Valley, Toronto and Region, Central Lake Ontario Source Protection Region



Toronto and Region Source Protection Authority Board has similar members as the Toronto and Region Conservation Authority board, which is made up of members appointed by municipal Councils. Accountability is governed by the *Clean Water Act* with members supporting the Source Protection Committee. Source Protection Committees are established by Source Protection Authorities under the *Clean Water Act* to administer the development of Assessment Reports and Source Protection Plans.

Assessment Reports completed by Source Protection Committees follow criteria under the *Clean Water Act* to identify:

- Vulnerable areas, including municipal drinking water wellhead protection areas and intake protection zones, significant groundwater recharge areas and highly vulnerable aquifers
- Potential threats to drinking water ranked as low, moderate or significant

While Assessment Reports detail vulnerable areas and potential threats in an area Source Protection Plans outline policies to protect vulnerable areas from contamination and overuse by potential threats.

### **Source Protection Plan policy updates can be requested by Source Protection Authorities to improve implementation of policies to protect drinking water**

The Plan was approved by the Ministry of Environment, Conservation and Parks (Ministry) and came into effect on December 31, 2015. The Plan contains policies that must be implemented by the Region and local municipalities to manage threats to protect drinking water quality and quantity.

The Ministry requires the Plan be reviewed regularly. The *Clean Water Act* allows the Source Protection Authority to request specific updates if drinking water systems have been added or removed, implementation challenges have been encountered, or significant new technical work has been completed. The Source Protection Authority is proposing minor updates to Plan policies to improve management of drinking water threats (see Appendix 1). Proposed updates focus on resolving implementation challenges and working with businesses to manage low-risk threats rather than prohibiting them. This provides greater flexibility for businesses, while maintaining required source water protection.

### ***Clean Water Act* specifies authority of Risk Management Inspectors and Risk Management Officials to ensure compliance with Risk Management Plans**

The *Clean Water Act* provides authority for Risk Management Inspectors and Risk Management Officials to conduct inspections to ensure compliance with Risk Management Plans and issue orders to address non-compliance. The Risk Management Official approves Risk Management Plans required from property owners under Source Protection Plans, and issues regulatory notices and orders.

Under *the Act*, a Risk Management Official and Risk Management Inspectors must be appointed by municipalities. The Delegation Bylaw Update, also on this agenda, recommends delegation of authority to the Commissioner of Public Works to appoint staff to these roles along with development of the bylaws required to implement this recommendation.

## 4. Analysis

### **Assessment Report revised to include additional Well Head Protection Area for new Nobleton groundwater well**

Activities designated under the *Clean Water Act* as significant threats, such as storage of hazardous chemicals and sewage systems, are managed in Wellhead Protection Areas by policies outlined in the Source Protection Plan. Regulations under the *Safe Drinking Water Act, 2002* require updates to Assessment Reports and Plans for new or expanded municipal drinking water systems.

Rehabilitation work at Nobleton Well 3 completed since 2019 was not successful in adequately sustaining performance and resulted in reduced capacity. Consequently, to maintain supply capacity at the drinking water facility, an additional well (Well 7) was added. Well 3 and Well 7 supply water to the same water treatment facility, located on the same site. Well 3 remains in service and operates as a back-up to the primary supply well (Well 7). The addition of this new well requires a Wellhead Protection Area be added to the Toronto and Region Source Protection Assessment Report. This 100-metre wellhead protection area is shown as Nobleton Well 7 WHPA-A in Appendix 2.

Water withdrawal rates and source of water at Nobleton Wells 3 and 7 remain the same and only minor updates to maps, text and tables in the Assessment Report are required to incorporate new Well 7. The Toronto and Region Source Protection Authority supports this assessment.

### **Amended Source Protection Plan will ensure continued protection of new drinking water source and mitigate drinking water quality threats**

As with all production wells across York Region, potential threats to drinking water within Wellhead Protection Areas are managed according to a risk-based approach. York Region's Source Water Protection Program staff work with property owners to mitigate risks in accordance with the amended Plan.

The amended Plan will allow the Region to work with its local municipal partners to protect drinking water sources and mitigate potential drinking water quality threats. Amendments required to the Assessment Report and Plan include updates to text, mapping and policies. The changes are summarized in Appendices 1 and 2.

## 5. Financial

Toronto and Region Source Protection Authority will manage all public consultation required for the Assessment Report and Plan amendments as part of their role under the *Clean Water Act*. Funding to support consultation work will be provided by the Ministry of Environment, Conservation and Parks.

The Region's Source Water Protection Program 2023 Operating Budget is \$1.3 million and is funded through water and wastewater user rates. Technical work for Nobleton Well 7 was completed under the 2022 Asset Management water program budget.

## 6. Local Impact

The *Clean Water Act* requires impacted local municipalities within the Toronto and Region Source Protection Authority to endorse proposed changes to the Plan and Assessment Report as part of the Ministry's approval process. The only local municipality affected by the Nobleton Well 7 Wellhead Protection Area is the Township of King. York Region staff are working with King municipal planning staff on these changes. No impact to proposed developments are expected as a result of these updates.

## 7. Conclusion

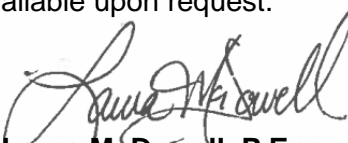
This report seeks Council endorsement of the proposed amendments to the Toronto and Region Assessment Report, as well as the Credit Valley, Toronto and Region, Central Lake Ontario Source Protection Plan for the new drinking water source, Nobleton Well 7 as required by regulations under the *Safe Drinking Water Act, 2002* and the *Clean Water Act*. These amendments are necessary to improve implementation of the Source Water Protection Program, including minor updates to text, mapping, and policies.

The amended Assessment Report and Plan will allow the Region to continue to work with its partner local municipalities to protect drinking water sources and mitigate potential drinking water quality threats.

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For more information on this report, please contact David Szeptycki, Director, Environmental Promotion and Protection at 1-877-464-9675 ext. 75723. Accessible formats or communication supports are available upon request.

Recommended by:



**Laura McDowell, P.Eng**

General Manager, Interim Transition - Environmental



**Erin Mahoney, M. Eng.**

Commissioner of Public Works



Approved for Submission:

**Bruce Macgregor**

Chief Administrative Officer

April 14, 2023

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Appendix 1 - Table of Source Protection Plan and Assessment Report Amendments – York  
Region Area Specific

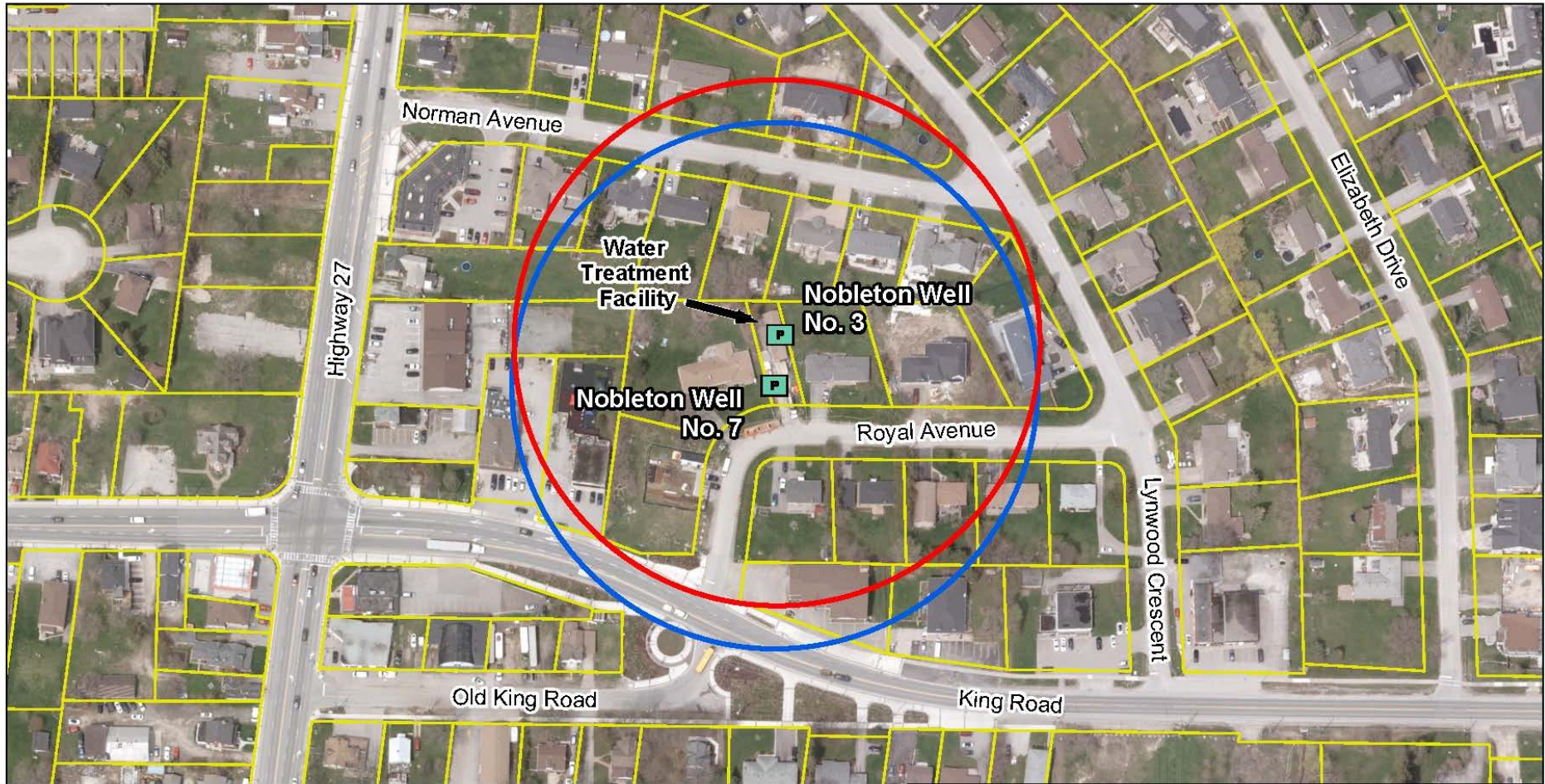
Appendix 2 - Nobleton Wellhead Protection Area Comparison

**Source Protection Plan and Assessment Report Amendments  
York Region Area-Specific**

<b>No.</b>	<b>Section or Figure</b>	<b>Brief Description of Anticipated Amendment</b>	<b>Estimated Timing to Submit Proposed Amendment to Ministry of the Environment, Conservation, and Parks</b>
<b>Toronto and Region Assessment Report</b>			
1.	Throughout	Update dates and version number	September 2023
2.	Throughout	Remove Text Boxes to improve <i>Accessibility for Ontarians with Disabilities Act (AODA)</i> compliance	September 2023
3.	Preface	Update Glossary	September 2023
4.	Preface	Update map to include the new production well 7 in Nobleton	September 2023
5.	Chapter 2	Update text, maps and tables to reflect the new production well 7 in Nobleton	September 2023
6.	Chapter 4	Update text, maps and tables to reflect the new production well 7 in Nobleton. Note that there are no changes to the capture zones or vulnerability scores	September 2023
7.	Chapter 7	Update Bibliography to include new reference to York's foundation memo for the new well	September 2023
8.	Appendix C	Update appropriate figures and text to include new well 7 in Nobleton and references to the foundation memo that explains why capture zones and derived calculations are not being amended	September 2023
9.	Appendix D	Update appropriate figures and text to include updated well information	September 2023

<b>No.</b>	<b>Section or Figure</b>	<b>Brief Description of Anticipated Amendment</b>	<b>Estimated Timing to Submit Proposed Amendment to Ministry of the Environment, Conservation, and Parks</b>
<b>Credit Valley, Toronto and Region, Central Lake Ontario Source Protection Plan</b>			
1.	Preface	Preface/Version Control: Update to note Director Technical Rules (DTR) version used for updates	September 2023
2.	Chapter 2	Section 2.1. Number of active supply wells update	September 2023
3.	Chapter 2	Figure 2-2. Update map of Credit Valley, Toronto and Region, Central Lake Ontario Source Protection Region (SPR) municipal wells and intake locations	September 2023
4.	Chapter 4	Section 4.1.2. Include description of updates to assessment reports	September 2023
5.	Chapter 5	Section 5.1.10 Include description of consultation on amendments	September 2023
6.	Chapter 6	Table 6-1: Well Count by Municipality. Update to include new well PW-7 in Nobleton	September 2023
7.	Chapter 7	Section 7.2 Update to transport pathways description	September 2023
8.	Chapter 8	Section 8.3. Summarize amendments made	September 2023
9.	Chapter 9	Section 9.2 Clarification on use of 2021 DTR's	September 2023
10.	Chapter 10	Section 10.1.2 Update definitions for Existing Threat Activity, Transition, and Amendment	September 2023
11.	Chapter 10	Section 10.1.3 update to text and table 10-1 to reflect changes in previous subsection	September 2023
12.	Chapter 10	Update Tables 10-2 to 10-14 to new format showing relevant DTR's	September 2023
13.	Chapter 10	Section 10.10 Proposed Dense Non-Aqueous Phase (DNAP)-1 and Organic Solvent (OS)-1 policy amendments	September 2023
14.	Chapter 12	Update to include Definition for DTR	September 2023
15.	Appendix F	Maps 1.17, Update significant groundwater quality threat areas - Wellhead Protection Area (WHPAs), vulnerability scores	September 2023
16.	Appendix F	Map 2.17 Update significant Dense Non-Aqueous Phase Liquid (DNAPL) threat areas (WHPAs)	September 2023
17.	Appendix F	Map 3.5 Update WHPAs in WHPA-Quantity Downgradient Line map	September 2023





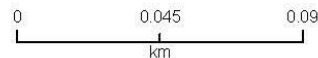
### Nobleton Wellhead Protection Area Comparison

Report: Source Water Protection Assessment Report and Protection Plan Amendments and Staff Appointments.

May 4, 2023



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Infrastructure Asset Management,  
Public Works Department  
The Regional Municipality of York  
April 2023  
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- Production Well
- Nobleton Well 3 WHPA-A
- Nobleton Well 7 WHPA-A
- Parcel

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