

The Regional Municipality of York

Committee of the Whole
Environmental Services
November 7, 2019

Report of the Commissioner of Environmental Services

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

1. Recommendations

1. Council endorse the proposed amendments to the Lake Simcoe Couchiching-Black River and Toronto Region Assessment Reports, as well as the South Georgian Bay Lake Simcoe and Central Lake Ontario, Toronto Region and Credit Valley Source Protection Plans provided in Attachment 1 and 2.
2. The Regional Clerk circulate this report and attachments to the Chairs, South Georgian Bay Lake Simcoe and Central Lake Ontario, Toronto Region and Credit Valley Source Protection Committees.
3. Council approve the appointment of Joanna Miron and Tom Bradley as Risk Management Inspectors and Mike Fairbanks as Risk Management Official under Part IV of the *Clean Water Act, 2006*.
4. The Regional Clerk issue a certificate of appointment bearing the clerk's signature to the Risk Management Inspectors and Risk Management Official.
5. The necessary bylaw be presented to Council in November 2019 to bring the appointments into effect.

2. Summary

This report seeks Council endorsement of the proposed changes to the Lake Simcoe Couchiching-Black River and Toronto Region Assessment Reports (Assessment Reports), and the South Georgian Bay Lake Simcoe and Central Lake Ontario, Toronto Region and Credit Valley Source Protection Plans (Plans), as required by regulations under the *Safe Drinking Water Act, 2002* and the *Clean Water Act, 2006*. The changes are required to include a new well, Aurora Well 7, and remove a well, Newmarket Well 14. Changes to the Assessment Reports and Plans include updates to text and mapping only, with no changes proposed to the policies.

This report also seeks Council approval to appoint Joanna Miron and Tom Bradley as Risk Management Inspectors and Mike Fairbanks as Risk Management Official as part of York Region's Source Protection Program and to meet a legislated requirement.

Key Points:

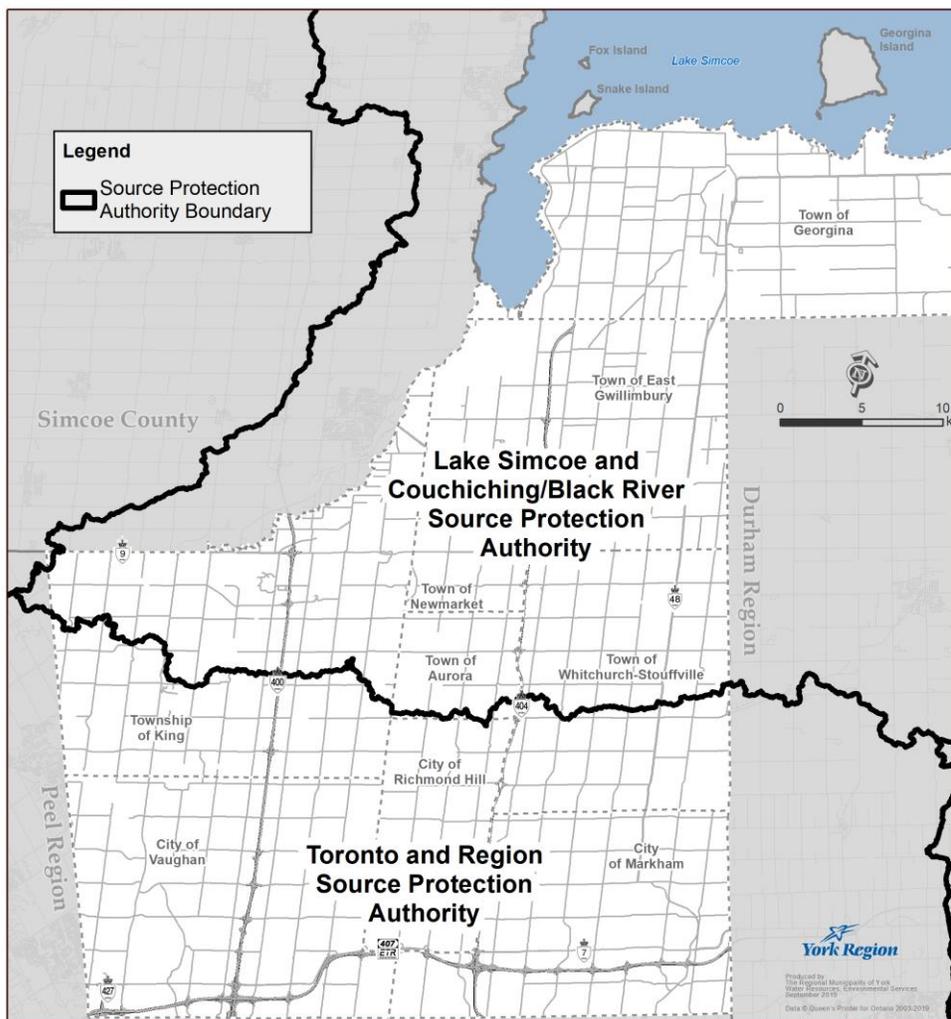
- Updates to the Assessment Reports and Source Protection Plans are required to include two well changes in Newmarket and Aurora
- New Clean Water Act designations are required for existing staff to continue implementation of Source Water Protection

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. York Region relies on groundwater wells for about 10% of the water supply and it continues to be an important drinking water source. York Region is located within the jurisdiction (or the area) of two Source Protection Authorities as shown in Figure 1.

Figure 1: York Region's Two Source Protection Authorities



Assessment reports completed by the Source Protection Authorities identify:

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

Each of the Source Protection Authorities is located in a larger Source Protection Region. Lake Simcoe Couchiching-Black River Source Protection Authority is in the South Georgian Bay Lake Simcoe Source Protection Region, and Toronto Region Source Protection Authority is in the Central Lake Ontario, Toronto Region and Credit Valley Source Protection Region.

Source Protection Plan policies require action by municipalities

The South Georgian Bay Lake Simcoe Source Protection Plan came into effect on July 1, 2015, and the Central Lake Ontario, Toronto Region and Credit Valley Source Protection Plan came into effect on December 31, 2015. Both plans contain policies that must be implemented by the Region and local municipalities to manage existing and future threats to protect drinking water quality and quantity. This includes establishing Risk Management Plans with businesses to mitigate potential water quality threats and protect municipal drinking water sources.

York Region Source Water Protection actions since 2007 have demonstrated leadership in the Province

Since 2007, York Region has been a leading agency in the province for Source Protection implementation. York Region is a municipal representative on both Source Protection Committees and participates on various provincial Source Protection working groups. Over 550 drinking water quality threats sites have been removed since 2010 through site visits and surveys. Staff have successfully negotiated over 88% of the Risk Management Plans required in advance of the end of 2020 deadline. Over half of the sites with Risk Management Plans have been inspected.

Region project completed to upgrade Yonge Street Aquifer area groundwater well infrastructure

The Region has developed a new groundwater supply well, Aurora Well 7. The well is constructed in a deep interconnected groundwater aquifer referred to as the Yonge Street Aquifer. This new well was developed as part of the Yonge Street Aquifer Well Capacity Restoration Project completed in accordance with the Municipal Class Environmental Assessment process in 2017. The project purpose was to restore the full permitted capacity of York Region's wells, within the Yonge Street Aquifer, that had been lowered over time due to normal infrastructure aging. The Environmental Assessment project also identified a new well located on Green Lane and its connection to the system is under evaluation.

The *Safe Drinking Water Act, 2002* requires updates to the Assessment Reports and Plans for new or expanded municipal drinking water systems prior to the well becoming operational.

Consultation with affected stakeholders and municipalities is required

The *Clean Water Act, 2006* requires consultation with stakeholders potentially affected by the proposed amendments, and Council endorsement of any proposed changes by affected upper and lower tier municipalities. Council resolutions will be included in the amendment package submitted to the Ministry of Environment, Conservation and Parks (Ministry) by the Source Protection Authorities in 2020. Consultation will be completed by the Source Protection Authorities in late 2019 and early 2020.

***Clean Water Act, 2006* specifies authority of Risk Management Inspectors and Risk Management Officials, and an appointment process**

The *Clean Water Act, 2006* 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, and issues regulatory notices and orders. Due to staffing changes the appointment of two Risk Management Inspectors and a Risk Management Official is required.

Legislation also specifies that municipal Council resolutions and certificates of appointment issued by the clerk are required to formalize all appointments.

4. Analysis

Wellhead Protection Areas in the Assessment Reports will be updated to include the new Aurora Well 7 and remove Newmarket Well 14

The new Aurora Well 7 is located at the site of existing Aurora Well 5. Aurora Well 7 will be added to the system and Wellhead Protection Area changes are required since changes to pumping from the well site will occur. These changes require updates to the Plans and Assessment Reports.

Wellhead Protection Areas represent zones that may contribute water to the well. As the aquifer in this area is interconnected, pumping from the new well also influences the Wellhead Protection Areas for other wells. Wellhead Protection Areas have been delineated for Aurora Well 7 with the use of a numerical flow model following the Ministry requirements outlined in the Technical Rules under the *Clean Water Act, 2006*. Both Source Protection Authorities support the technical work that has been completed pursuant to the applicable regulations. Updated Wellhead Protection Areas for the wells completed in the Yonge Street Aquifer are shown on Attachment 3 and will be included in the amended Assessment Reports.

Newmarket Well 14 is no longer in use due to poor naturally occurring water quality characteristics of the aquifer and will be removed from the system and subsequently removed from the Assessment Reports and Plans. This will not impact the overall capacity of the interconnected system as the Aurora Well 7 replaces the lost capacity. Newmarket Well 14 is slated for decommissioning in 2020.

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

Potential threats to drinking water within Wellhead Protection Areas are managed according to a risk based approach as required by the *Clean Water Act, 2006*. York Region's Source Water Protection program will continue to work with property owners to mitigate risk in accordance with the amended Source Protection Plans.

The amended Plans will allow the Region to continue to work with its local municipal partners and other Regional departments to protect the drinking water sources and mitigate potential drinking water quality threats. The protection plan will be consistent with previous implementation with no changes to the protection plan requirements proposed, and changes only related to the updated Wellhead Protection Areas.

Amendments required to the Assessment Reports and Plans include updates to text and mapping only, with no changes proposed to the policies. The changes are summarized in Attachments 1 and 2.

Joanna Miron and Tom Bradley recommended as Risk Management Inspectors. Mike Fairbanks recommended as Risk Management Official

The *Clean Water Act, 2006* requires that Risk Management Inspectors and Officials be formally appointed by Council. Due to staffing changes the appointment of two Risk Management Inspectors and Risk Management Official is required. Joanna Miron and Tom Bradley will be completing Risk Management Inspector duties as part of their new roles. Mike Fairbanks is the Manager of the Water Resources Division and will perform Risk Management Official duties as part of his position. Joanna Miron and Mike Fairbanks are in the process of completing the required training and will be certified by the Ministry by the end of 2019. Tom Bradley was previously certified.

York Region staff participate on Source Protection Committees and provide representation for local municipalities. Don Goodyear will continue his role as committee member until the end of the committee term in 2021. Committee membership is summarized in Table 1.

Table 1
Source Protection Committee Membership

Committee	York Region Representative
South Georgian Bay Lake Simcoe	Don Goodyear
Central Lake Ontario, Toronto and Region and Credit Valley	Scott Lister

5. Financial

The Lake Simcoe and Couchiching/Black River and Toronto Region Source Protection Authorities will manage all public consultation required for the Assessment Report and Plan amendments as part of their source protection role under the *Clean Water Act, 2006* funded by the Ministry.

The Region's source protection program 2019 operating budget is \$1.1 million and funded through the water rate. Required technical work, including delineating new Wellhead Protection Areas, was completed under the existing program budget.

6. Local Impact

The *Clean Water Act, 2006* requires local municipalities within the Lake Simcoe and Couchiching/Black River and Toronto Region Source Protection Authorities to endorse the proposed changes to the Plans and Assessment Reports as part of the Ministry's approval process. Local municipalities affected by the updated Wellhead Protection Areas include the Towns of Newmarket and Aurora, the Township of King and the City of Richmond Hill. York Region staff are working with local municipal planning staff to implement these changes and preparation of their council reports.

No impact to proposed developments or implementation of source protection policies are expected due to updated Well Head Protection Areas. *Clean Water Act, 2006* requirements will be removed from businesses located within the current Wellhead Protection Area of Newmarket Well 14 once approved by the Ministry. Staff will notify businesses following approval.

No impact to local municipalities is expected as a result of the appointment of the Risk Management Inspectors and Risk Management Official nor to local municipalities' source protection implementation requirements.

7. Conclusion

The new drinking water source (Aurora Well 7) requires amendments to the Assessment Reports and Plans and as required by regulations under the *Safe Drinking Water Act, 2002* and the *Clean Water Act, 2006*.

The amended Plans will allow the Region to continue to work with its partner local municipalities and other Regional departments to protect drinking water sources and mitigate potential drinking water quality threats.

For more information on this report, please contact Laura McDowell, Director, Environmental Promotion and Protection at 1-877-464-9675 ext. 75077. Accessible formats or communication supports are available upon request.

Recommended by: **Erin Mahoney, M. Eng.**
Commissioner of Environmental Services

Approved for Submission: **Bruce Macgregor**
Chief Administrative Officer

October 29, 2019
Attachments (3)

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