



PORT COLBORNE

Subject: Recommendation Report for Official Plan & Zoning By-law Amendment Applications, File D09-01-20 & D14-03-20 Mineral Aggregate Resources & Operation Zone

To: Council

From: Planning and Development Department

Report Number: 2021-63

Meeting Date: March 8, 2021

Recommendation:

That the Official Plan Amendment, attached hereto as Appendix A, adding new Mineral Aggregate and Petroleum Resources and aquifer protection policies, be approved.

That the Zoning By-law Amendment, attached hereto as Appendix B, adding new Mineral Aggregate provisions, definitions and aquifer protection provisions, be approved.

Purpose:

The purpose of the report is to provide Council with a recommendation regarding a proposed Official Plan and Zoning By-law Amendment introducing new policies and provisions related to Mineral Aggregate Resources and aquifer protection in the rural area.

Background:

On September 28, 2020, Council received Planning & Development report 2020-123 for information in which contained a staff proposal to amend the Official Plan and Zoning By-law 6575/30/18 which was subject to a public meeting under the Planning Act.

It was proposed to amend the Official Plan's Mineral Aggregate and Petroleum Resources policies under file number File D09-01-19 by adding the following to Section 10.1.1 Additional Policies:

d) require site specific Zoning By-law amendments to permit ancillary land uses such as asphalt plants, cement/concrete plants and aggregate depots that blend and stockpile

aggregate materials with salt and aggregate transfer except where otherwise prohibited by the policies of this Plan, subject to:

- i) the protection of adjoining lands from the negative effects of a reduced water supply, noise, dust, odour, lighting and outdoor storage;*
- ii) the protection of the environment from negative effects of dust, chemical spills, run-off, or contamination of surface or groundwater;*
- iii) access being obtained directly to a road capable of carrying the anticipated truck traffic; and,*
- iv) notwithstanding b) above, ancillary land uses will not be permitted where they are identified as a prohibited use in accordance with the Source Water Protection policies in Section 8.3 of this Plan.*

Under file number D14-03-20, Zoning By-law 6575/30/18 proposed to add the following to Section 2.3 Uses Prohibited in All Zones:

- b) Asphalt and cement manufacturing without an amendment to this by-law.*

As Council is aware, there was interest from the public with several written submissions being received for the September 28, 2020, Public Meeting. Minutes of the public meeting were presented to Council at their meeting on October 13, 2020.

On October 26, 2020, Councillor Wells brought forward a motion to identify the Highly Vulnerable Aquifer as a drinking water source for the rural portion of Port Colborne and to protect it.

The motion passed by Council at the October 26, 2020 Council meeting was as follows:

That Council recognizes the Aquifer as identified in Schedule B3 of the Official Plan as a source water for the rural residents of the City; and

That the Director of Planning and Development be directed to amend the Official Plan to include the Aquifer such that the Aquifer receives the same consideration and protection from susceptible threats of contamination or adverse impact as the intake protection zones (IPZ-1 and IPZ-2); and

That the Region of Niagara, Township of Wainfleet, City of Welland, Town of Fort Erie and Niagara Peninsula Conservation Authority be notified of the City's action and be requested to pursue similar updates to their municipal planning documents in order to protect the aquifer.

On December 14, 2020, staff advised Council that a recommendation report would be submitted once additional public comments received after the public meeting can be reviewed.

On January 4, 2021, staff met with Regional Planning staff to discuss the proposed amendments and were informed that a report will be submitted on February 17, 2021, to the Regional Planning and Economic Development Committee in response to a 2020 motion.

Regional minutes of a December 9, 2020, Planning and Economic Development Committee meeting are copied below:

7.3 Port Colborne Aquifer

Councillor Butters requested staff provide a report at the Planning and Economic Development Committee meeting being held on February 17, 2021 respecting changes to Niagara Region's planning documents in order to protect the Port Colborne Aquifer, as identified in Schedule B3 of the City of Port Colborne's Official Plan.

Attached as Appendix D is the Regional Planning report. Staff is now in a position having reviewed all information to provide a recommendation report for Council's consideration.

Discussion:

Review of Council's October 26, 2020 direction

Staff have reviewed the Provincial Policy Statement (PPS) Policies and the Growth Plan related to Water Resources and for the protection/identification of the Highly Vulnerable Aquifer and provide the following:

► PPS

2.1.1 Natural features and areas shall be protected for the long term.

2.1.2 The diversity and connectivity of natural features in an area, and the long-term ecological function and biodiversity of natural heritage systems, should be maintained, restored or, where possible, improved, recognizing linkages between and among natural heritage features and areas, surface water features and ground water features.

2.2.1f) implementing necessary restrictions on development and site alteration to:

1. protect all municipal drinking water supplies and designated vulnerable areas; and
2. protect, improve or restore vulnerable surface and ground water, sensitive surface water features and sensitive ground water features, and their hydrologic functions;

► Growth Plan

4.2.1 Water Resource Systems

1. Upper-and single-tier municipalities, partnering with lower-tier municipalities and conservation authorities as appropriate, will ensure that watershed planning is undertaken to support a comprehensive, integrated, and long-term approach to the protection, enhancement, or restoration of the quality and quantity of water within a watershed.
2. Water resource systems will be identified to provide for the long-term protection of key hydrologic features, key hydrologic areas, and their functions.
3. Watershed planning or equivalent will inform:
 - a) the identification of water resource systems;
 - b) the protection, enhancement, or restoration of the quality and quantity of water;
 - c) decisions on allocation of growth; and
 - d) planning for water, wastewater, and stormwater infrastructure.
4. Planning for large-scale development in designated greenfield areas, including secondary plans, will be informed by a subwatershed plan or equivalent.
5. Municipalities will consider the Great Lakes Strategy, the targets and goals of the Great Lakes Protection Act, 2015, and any applicable Great Lakes agreements as part of watershed planning and coastal or waterfront planning initiatives.

The City's Official Plan identifies the Highly Vulnerable Aquifer Areas in the City as Schedule B3 but provides no policy direction for lands that rely on private well water supply. Policies in the Official Plan and the Regional Plan only speak to protecting municipal water supply around intake areas. Both documents are silent for water supply when municipal services are unavailable.

The policies in the Official and Regional Plan regarding the Highly Vulnerable Aquifer Areas and protection of intake areas for municipal water supply first involved the completion of a science-based Assessment Report and a Source Protection Plan by the Niagara Peninsula Conservation Authority (NPCA).

When Official Plan policies of Section 8.3 were proposed to Council in 2014, they had to be read in their entirety and in conjunction with the Source Protection Plan, Assessment Report and the Explanatory Document that provided the context and rationale for the land use policies and in identifying significant threats for the Port Colborne water treatment plant intake protection zones.

Section 8 of the Official Plan was amended to identify the intake protection zones along the Welland Canal and included the following policies that controlled land use:

- a) No new waste disposal sites shall be permitted within the Port Colborne IPZ 1.
- b) No new waste disposal sites for the application of untreated septage to land shall be permitted within the Port Colborne intake Protection Zone 2.
- c) The commercial storage of pesticides in a quantity greater than 2,500 kg is considered a significant threat in the Port Colborne Intake Protection Zone 1. The future storage of pesticides in quantities greater than 2,500 kg may only be permitted subject to an approved Risk Management Plan within the Port Colborne Intake Protection Zone 1.
- d) The storage of road salt is considered a significant threat in the Port Colborne Intake Protection Zone 1, if stored outside with no cover, in amounts greater than 5,000 tonnes. New open storage of road salt greater than 5,000 tonnes is not permitted within the Port Colborne Intake Protection Zone 1.
- e) The storage of snow, and the contaminants associated with it, is considered a significant threat in the Port Colborne Intake Protection Zone 1 if stored in an area greater than 1 hectare. New storage of snow greater than 1 hectare in area is not permitted within the Port Colborne Intake Protection Zone 1.
- f) The discharge from untreated stormwater management systems is a significant threat where the storm sewer drainage area is at least 10ha in size with the predominant land use being commercial or industrial. Future stormwater management facilities which meet these criteria are not permitted within the Port Colborne Intake Protection Zone 1 and Intake Protection Zone 2.
- g) The discharge from wastewater treatment plants or combined sewer overflows, or discharge of industrial effluent is considered a significant threat as defined under the applicable circumstances in table 20, table 21, table 46, and in table 47 in Appendix C of the Assessment Report (2013). Future combined sewers, wastewater treatment facilities, and industrial effluent systems which meet these criteria are not permitted within the Port Colborne Intake Protection Zone 1 and Intake Protection Zone 2.
- h) An application for commercial or industrial development or the expansion, extension, or alteration of existing stormwater management facilities or the expansion of an existing commercial or industrial development, in instances where the Risk Management Official deems such an expansion may pose a significant threat to municipal drinking water, within the Port Colborne Intake Protection Zone 1 and Intake Protection Zone 2, shall be accompanied by a stormwater management plan that demonstrates and implements best

management practices related to managing stormwater runoff to the satisfaction of the Region's Chief Planning Official and City of Port Colborne, in consultation with the Risk Management Official, such that the development does not pose a significant threat to municipal drinking water.

i) In consideration of existing or future significant threats related to stormwater discharges, the City shall, within 5 years from the date the Source Protection Plan comes into effect (October 1, 2019), prepare and implement a comprehensive stormwater management master plan for the catchments out-letting to the Port Colborne IPZ 1 and Port Colborne IPZ 2. The stormwater management master plan will be prepared in accordance with the Municipal Class Environmental Assessment and will include:

An evaluation of the cumulative environmental impact of stormwater from existing and planned development.

j) The storage, and application to land of agricultural source material, and the lands used for livestock grazing/pasturing, farm animal yards and outdoor confinement areas, are significant threats in the Port Colborne Intake Protection Zone 1 and Intake Protection Zone 2. Future agricultural land uses are not permitted within the Port Colborne Intake Protection Zone 1 and Intake Protection Zone 2.

k) Any planning or building permit application for a land use other than residential in Port Colborne Intake Protection Zone 1 and Intake Protection Zone 2 may require a Section 59 Notice from the Region of Niagara's Risk Management Official. The requirements of the notice will be determined through the application screening process.

l) By February 1st of each year, the City of Port Colborne shall report to the Source Protection Authority on the steps it has taken in the previous calendar year to implement the significant drinking water threat policies.

In response to Council's direction that the Aquifer receives the same protection as the intake protection zones (IPZ-1 and IPZ-2) creates a land use policy conflict and cannot be supported by staff.

The Planning Act, R.S.O. 1990, as amended, provides that amendments may be made to the Official Plan. However, when considering policy amendments, the policies will need to ensure compatibility with the surrounding land uses and be consistent with the Provincial Policy Statement (PPS), conforms to the Growth Plan, Regional and City Plan.

Prohibiting certain land use on designated Agricultural, Rural, Aggregate Resources, Hamlet, and Rural Employment lands create this policy conflict with use being supported in the Regional and City Official Plan. For example, the intake protection zones do not want land used for livestock grazing/pasturing. Prohibiting agricultural land

use on aquifer lands would not be supportable from a land use policy perspective as Agriculture land use is protected and preserved for long term use in the PPS, Regional and City Plan.

Staff however have reviewed the intake protection policies in the Official Plan and have proposed land uses to prohibit in the Highly Vulnerable Aquifer. These were done after review of Section 2.3.1 of the PPS which states that agricultural areas shall be protected for long-term use and while balancing Section 2.2.1 of the PPS. Staff have read the PPS in its entirety and feel that the relevant policies have been considered and applied for proposing the Official Plan amendments.

The Draft Zoning By-law attached as Appendix B proposing prohibitions can be supported (e.g. non-industrial livestock grazing will still be permitted on designated agricultural land in the aquifer).

Review of the Niagara Region Planning Report on Aquifer Options

Staff have reviewed the report (attached as Appendix D) and it is supported. It provides good information on the protection of groundwater resources and drinking water systems. It speaks to what staff have been drafting following receipt of public comments on the proposed applications. Regional staff commented that there are mechanisms such as the zoning by-law that can offer the protection of groundwater resources.

The report supports what staff have proposed through the Zoning By-law amendment by not allowing certain land use in the Highly Vulnerable Aquifer. Regional staff conclude that they are presently developing a comprehensive water resource system as part of their new Niagara Official Plan that will include specific policies regarding the Highly Vulnerable Aquifer. Once approved, the City would then be able to make amendments the Official Plan to ensure conformity with the Regional Plan.

Summary of Official Plan and Zoning By-law amendments

The following amendments have now been included and are summarized below:

Official Plan

- Amend Section 8.3 Source Water Protection by relocating it to Section 4.1.3.2
- Amend Section 4 Natural Heritage by adding 4.1.3.3 Highly Vulnerable Aquifer policies a) to g)
- Introducing new Source Water Protection policies for rural lands in the Highly Vulnerable Aquifer.
- Site Alteration policy in the Highly Vulnerable Aquifer.

- Mineral Aggregate Policy additions in Section 10.

Zoning By-law

- Deleting a) Mineral Aggregate Operations and b) Making or establishment of pits and quarries for the purpose of extracting natural materials from the earth including soil, clay, sand, gravel, stone, rock, shale and minerals; and replacing it with a) Aggregate Extraction Operation.
- Adding the following definitions to Section 38: Aggregate Extraction Operation, Aggregate Storage Area, Natural Ground Water Table, Wet Pit, Dry Pit and the Highly Vulnerable Aquifer.
- Addition of Schedule A10 Highly Vulnerable Aquifer Overlay.
- Addition of Section 2.3.2 Highly Vulnerable Aquifer prohibited uses.
- Removal of the Mineral Aggregate Operation definition.
- Addition of the following prohibited uses in the Mineral Aggregate Operation zone:
 - Asphalt Plant, Concrete Plant and Aggregate transfer station.

Internal Consultations:

No internal consultation for proposed Official Plan policy and Zoning By-law changes were necessary.

Financial Implications:

There are no financial implications.

Public Engagement:

The public was first engaged on the proposed applications on a Zoom Open House on September 10, 2020, a public meeting on September 28, 2020 and additional public comment submission after the public meeting.

Conclusion:

Staff have recommended amendments to the Official Plan and the Zoning By-law by adding policies to the Mineral Aggregate Resources designation, new policies and provisions protecting the Highly Vulnerable Aquifer. The recommendations are made in the public's interest and represent good planning.

Appendices: (If none delete section)

- a. Appendix A: Draft Official Plan Amendment
- b. Appendix B: Draft Zoning By-law Amendment
- c. Appendix C: Schedule A10 Draft Zoning By-law Amendment
- d. Appendix D: Regional Planning Report on Aquifer Options

Respectfully submitted,

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Report Approval:

All reports reviewed and approved by the Department Director and also the City Treasurer when relevant. Final approval is by the Chief Administrative Officer.

The Corporation of the City of Port Colborne

By-law No. _____

Being a By-law to Adopt Amendment No. 7 to the Official Plan
for the City of Port Colborne

Whereas it is deemed expedient to further amend the Official Plan, heretofore adopted by Council for the City of Port Colborne Planning Area;

Now therefore the Council of The Corporation of the City of Port Colborne under Section 17(22) of the *Planning Act*, hereby enacts as follows:

1. That Official Plan Amendment No. 7 to the Official Plan for the City of Port Colborne Planning Area, consisting of the explanatory text is hereby adopted.
2. That this By-law shall come into force and take effect on the day of passing thereof.

Enacted and passed this ____ day of _____, 2021.

William C. Steele
Mayor

Amber LaPointe
City Clerk

**AMENDMENT NO. 7
TO THE
OFFICIAL PLAN
FOR THE
PORT COLBORNE PLANNING AREA**

**PREPARED BY:
CITY OF PORT COLBORNE
DEPARTMENT OF PLANNING & DEVELOPMENT
FEBRUARY 22, 2021**

**AMENDMENT NO. 7
TO THE OFFICIAL PLAN
FOR THE
CITY OF PORT COLBORNE**

This Amendment to the Official Plan for the City of Port Colborne, which has been adopted by the Council of the Corporation of the City of Port Colborne, is hereby approved in accordance with Sections 17 and 21 of the Planning Act R.S.O. 1990, c. P.13, as Amendment No. 7 to the Official Plan for the City of Port Colborne.

Date: _____

**AMENDMENT NO. 7 TO THE OFFICIAL PLAN
FOR THE
PORT COLBORNE PLANNING AREA**

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STATEMENT OF COMPONENTS

PART A

The Preamble does not constitute part of this Amendment.

PART B

The Amendment, constitutes Amendment No. 7 to the Official Plan for the Port Colborne Planning Area.

Also attached is **PART C** – The Appendices, which do not constitute part of this Amendment. These appendices contain the background data, planning considerations and public involvement associated with this Amendment.

PART A - THE PREAMBLE

Purpose

The purpose of the amendment is to relocate existing policies respecting Source Water Protection, to introduce new policies for the protection of the Highly Vulnerable Aquifer, and to the Mineral Aggregate and Petroleum Resources designation.

Location

The lands that are designated Mineral Aggregate and Petroleum Resources and in the Highly Vulnerable Aquifer are subject to this Amendment.

Basis

The Planning Act, R.S.O. 1990, as amended, provides that amendments may be made to the Official Plan. Policies of the Official Plan have been considered in the preparation of this Amendment and the following factors: 1. the policies will ensure compatibility with the surrounding land uses. 2. This Amendment is consistent with the Provincial Policy Statement, conforms to the Growth Plan for the Greater Golden Horseshoe and the Region of Niagara Official Plan.

PART B – THE AMENDMENT

The Official Plan adopted by By-law 5855/109/12 and approved by the Ontario Municipal Board decision of November 25, 2013, for the Port Colborne Planning Area is hereby amended by doing the following:

Amend Section 8.3 Source Water Protection by relocating it to Section 4.1.3.2.

Amend Section 4 Natural Heritage by adding 4.1.3.3 Highly Vulnerable Aquifer policies

a) to f)

- a) Many owners of land outside of the Urban Service Boundary rely on groundwater sources from deep aquifers through a number of active wells for private water supply.
- b) A boundary of one of these aquifers is shown on Schedule B3 as a Highly Vulnerable Aquifer.
- c) An application for development on lands within the highly vulnerable aquifer are to be regulated by the Zoning By-law.
- d) Site alteration shall be restricted when not related to a Building Permit or Planning Act application in the vulnerable aquifer and when applicable, subject to requirements of O. Reg 406/19 made under the Environmental Protection Act.
- e) Outside of the Urban Area Boundary, existing land use considered to be a risk to groundwater that are located on Schedule B3 shall become legal non-conforming and shall, in the long-term be encouraged to relocate to the appropriate land use designation.
- f) That owners continue maintaining their private water supply systems in good working condition.

Amend Section 10 by adding the following to Section 10.1.1 Additional Policies:

- d) require site specific Zoning By-Law Amendments to permit ancillary land uses such as asphalt plants, cement/concrete plants, and aggregate depots that blend and stockpile aggregate materials with salt and aggregate transfer except where otherwise prohibited by the policies of this Plan, subject to:
 - i) the protection of adjoining lands from adverse effects of a reduced water supply, noise, dust, odour, lighting and outdoor storage;
 - ii) the protection of the environment from adverse effects of dust, chemical spills, run-off, or contamination of surface or groundwater;
 - iii) access being obtained directly to a road capable of bearing the anticipated loaded truck weights and conveying the cumulative volume of traffic without negative impacts to current traffic flow ; and,
 - iv) ancillary land uses will not be permitted where they are identified as a prohibited use in accordance with the Highly Vulnerable Aquifer policies in Section 4.3.2 of this Plan; and,

- v) ancillary land uses will not be permitted where they are prohibited in O. Reg. 466/20.
- e) require site specific Zoning By-law amendments to permit ancillary land uses such as asphalt plants, cement/concrete plants and aggregate depots that blend and stockpile aggregate materials with salt and aggregate transfer except where otherwise prohibited by the policies of this Plan, subject to:
- i) the protection of adjoining lands from the negative effects of a reduced water supply, noise, dust, odour, lighting and outdoor storage;
 - ii) the protection of the environment from negative effects of dust, chemical spills, run-off, or contamination of surface or groundwater;
 - iii) access being obtained directly to a road capable of carrying the anticipated truck traffic; and,
 - iv) notwithstanding b) above, ancillary land uses will not be permitted where they are identified as a prohibited use in accordance with the Source Water Protection policies in Section 8.3 of this Plan.

IMPLEMENTATION AND INTERPRETATION

The implementation and interpretation of this amendment shall be in accordance with the respective policies of the Port Colborne Official Plan.

PART C – THE APPENDICES

The following appendices do not constitute part of Amendment No. 7 but are included as information to support the Amendment.

Appendix I – Minutes of the Public Meeting dated September 28, 2020
Appendix II – Department of Planning & Development Report 2021-63
(recommendation report)

The Corporation of the City of Port Colborne

By-law No. _____

Being a By-law to Amend Zoning By-law 6575/30/18 Regarding Mineral Aggregate Operation Zone Provisions, Definitions and Uses in the Highly Vulnerable Aquifer

Whereas By-law 6575/30/18 is a by-law of The Corporation of the City of Port Colborne restricting the use of land and the location and use of buildings and structures; and

Whereas, the Council of The Corporation of the City of Port Colborne desires to amend the said by-law.

Now therefore and pursuant to the provisions of Section 34 of the *Planning Act, R.S.O. 1990*, The Corporation of the City of Port Colborne enacts as follows:

1. That Section 28.2 Permitted Uses in the Mineral Aggregate Operation zone be amended by deleting the following:
 - a) Mineral Aggregate Operations
 - b) Making or establishment of pits and quarries for the purpose of extracting natural materials from the earth including soil, clay, sand, gravel, stone, rock, shale and minerals;

And replacing it with the following:

- a) Aggregate Extraction Operation
2. That Section 28.2 Permitted Uses be amended by adding the following:

28.21 Prohibited Uses

 - a) Asphalt manufacturing plant
 - b) Cement manufacturing plant
 - c) Aggregate transfer station

3. That the definition of Mineral Aggregate Operation be deleted from Section 38.
4. That the following definitions be added to Section 38:

Aggregate Extraction Operation: means a site including accessory buildings and structures used for the removal, refinement and / or processing or storage of sand, gravel, stone or other aggregate resources, and may include borrow pits, gravel pits and stone quarries, but does not include an asphalt plant or a concrete plant.

Natural Ground Water Table: means the natural upper surface of the zone of complete groundwater saturation within pores in the subsurface. The zone of saturation is where the pores and fractures of the ground are saturated with water.

Wet Pit: means a man made open depression in the earth's surface that will retain water to the natural ground water table if not artificially kept dewatered.

Dry Pit: means a man made open depression in the earth's surface that is above the natural ground water table that does not retain water or have to be artificially dewatered.

Highly Vulnerable Aquifer: Is the water-bearing formation of permeable rock within the boundaries of the City which can contain or transmit groundwater that has been assessed by the Niagara Peninsula Source Protection Authority to be highly susceptible to contamination due to the physical characteristics of the geology of land subsurfaces and the land use.

4. That Schedule A10 Highly Vulnerable Aquifer Overlay be added to Section 39: Zone Schedules as shown on as Schedule A attached to and forming part of this by-law.
5. That Section 2.3.1 Source Water Protection be amended by adding the following:

2.3.2 Highly Vulnerable Aquifer:

- a) Notwithstanding any other provisions of the by-law to the contrary, the following uses shall be prohibited within the High Vulnerable Aquifer as shown on Schedules A10 in Section 39 of this By-law:
 - i) Waste disposal site;
 - ii) Pesticide storage greater than 2,500 kg;
 - iii) Open storage of road salt greater than 5,000 tonnes;
 - iv) Storage of snow greater than 1 hectare;
 - v) Underground fuel storage tanks;
 - vi) Any commercial or industrial use in the Hamlet zone that pose a significant threat and can't be mitigated or managed are not permitted;
 - vii) Agriculture farm related industrial;
 - viii) Storage of materials that do not meet Table 1 of Provincial Excess Soil Quality Standards.
6. That this By-law shall come into force and take effect on the day that it is passed by Council, subject to the provisions of the *Planning Act*.

7. The City Clerk is hereby authorized and directed to proceed with the giving notice of the passing of this by-law, in accordance with the *Planning Act*.

Enacted and passed this ____ day of _____, 2021.

William C. Steele
Mayor

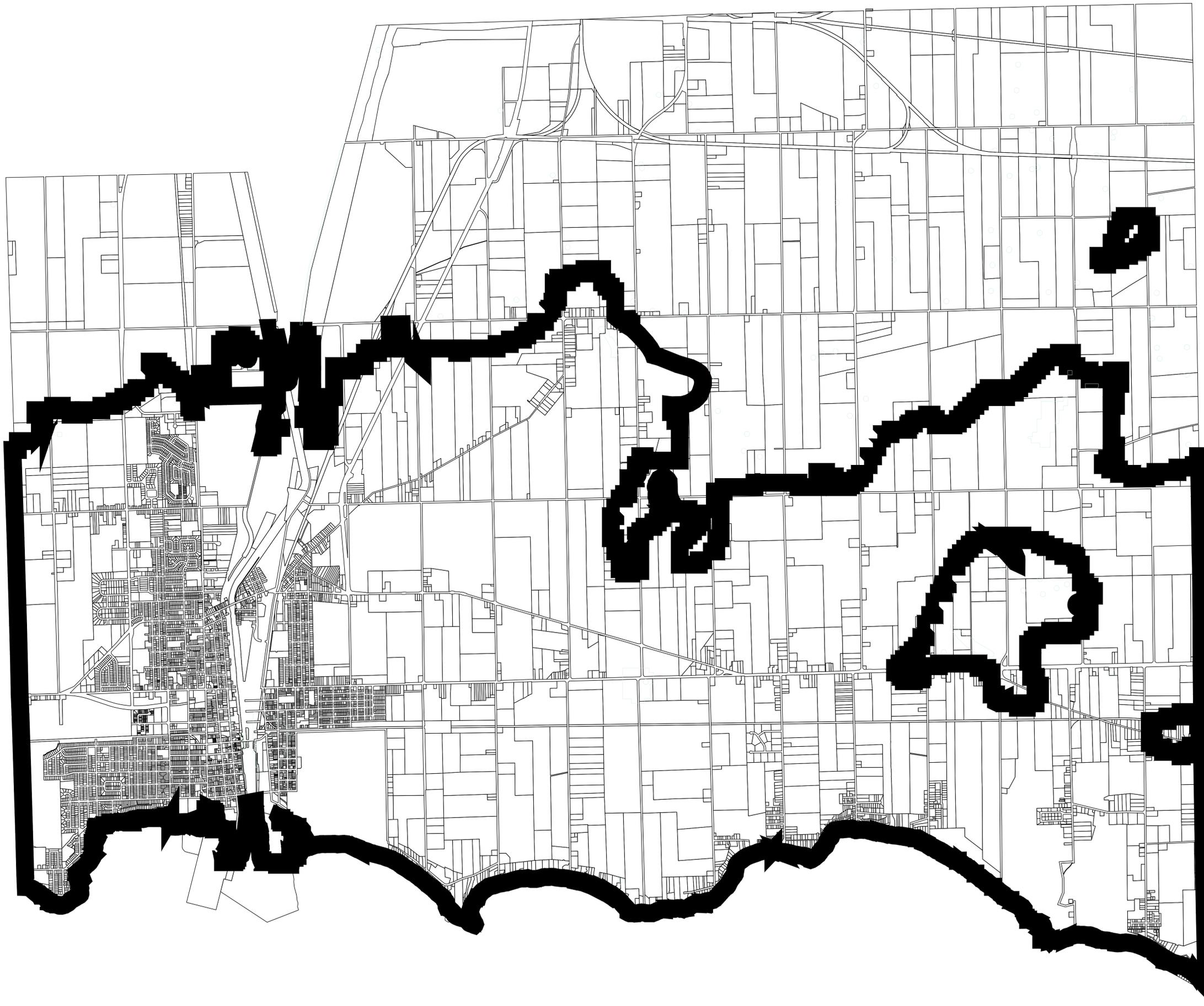
Amber LaPointe
City Clerk

City of Port Colborne



SCHEDULE "A10"

Highly Vulnerable Aquifer Overlay



This is Schedule "A10" to Bylaw No. 6575/30/18
Passed the ____ day of _____, 2021.

William C. Steele, Mayor

Amber LaPointe, City Clerk

Subject: Review of Options – South Niagara Aquifer

Report to: Planning and Economic Development Committee

Report date: Wednesday, February 17, 2021

Recommendations

1. That Report PDS 9-2021 **BE RECEIVED** for information; and
2. That Report PDS 9-2021 **BE CIRCULATED** to the City of Port Colborne, Town of Fort Erie, City of Welland, Township of Wainfleet, Niagara Peninsula Conservation Authority (NPCA), and the Niagara Peninsula Source Protection Committee.

Key Facts

- This report responds to direction given at the December 9, 2020 Planning and Economic Development Committee (PEDC) meeting where staff were requested to prepare a report outline existing policies and options for the protection of the south Niagara aquifer.
- In considering the protection of groundwater resources and drinking water systems in the region there are primarily two pieces of Provincial legislation that need to be reviewed, the *Planning Act, 1990* (Planning Act) and the *Clean Water Act, 2006* (Clean Water Act).
- In Niagara, the NPCA is the Source Protection Authority under the Clean Water Act. The responsibility for source water protection planning is that of the Source Protection Committee (SPC) with staff support from the NPCA. The Province is the approval authority for Source Protection Plans prepared by the SPC.
- Policies included in the Regional Official Plan related to drinking water systems, Intake Protection Zones (IPZs), and Wellhead Protection Areas (WPAs) must be directly informed by the Source Protection Plan (SPP). The Regional Official Plan cannot designate an IPZ or WPA without it first being identified in the SPP by the SPC following a technical evaluation process.
- This report outlines several tools and policies which can protect the south Niagara aquifer, such as provincial policy requirements, official plan policies, zoning by-laws, site alteration by-laws, and Ontario Building Code regulations. The report

however draws the conclusion that the provisions of the Clean Water Act are unlikely to apply to a number of private drinking water wells across a wide geographic area, and the Clean Water Act not the appropriate tool to achieve the desired outcome of protecting the Highly Vulnerable Aquifer (HVA) in south Niagara.

- In 2020, specific actions were taken by Regional Council and the City of Port Colborne City relating to the south Niagara aquifer. In January 2020, PEDC passed a resolution directing staff to include specific policies for the protection of the south Niagara aquifer in the new Niagara Official Plan. At its October 26, 2020 meeting, the Port Colborne City Council passed a resolution directing additional protection of the aquifer including local official plan polices and changes to their zoning by-law.

Financial Considerations

There are no financial implications stemming from this report.

Analysis

Part A – Review of Background Information and Existing Policies

A.1 - Important Terminology Related to Groundwater Resources:

To ensure a common understanding of groundwater resources in the Region the following terminology is used in this report. These terms are based on provincial definitions.

- Key Hydrologic Feature – permanent streams, intermittent streams, inland lakes and their littoral zones, seepage areas and springs, and wetlands (Growth Plan).
- Key Hydrologic Areas – significant groundwater recharge areas, highly vulnerable aquifers, and significant surface water contribution areas that are necessary for the ecological and hydrologic integrity of a watershed (Growth Plan).
- Highly Vulnerable Aquifer (HVA) – aquifers, including lands above the aquifer, on which external sources have or are likely to have a significant adverse effect (Growth Plan).

- Significant Groundwater Recharge Area (SGRA) – an area that has been identified:
 - a) as a significant groundwater recharge area by any body for the purpose of implementing the PPS, 2014;
 - b) as a significant groundwater recharge area in the assessment report required under the Clean Water Act, 2006; or
 - c) as an ecologically significant groundwater recharge area delineated in a subwatershed plan or equivalent in accordance with provincial guidelines

For the purposes of this definition, ecologically significant groundwater recharge areas are areas of land that are responsible for replenishing groundwater systems that directly support sensitive areas like cold water streams and wetlands (Growth Plan).

- Intake Protection Zone (IPZ) – an area as delineated in Schedule H of this Plan and in the Source Protection Plan for the Niagara Peninsula Source Protection Area that surrounds a municipal surface water intake and within which it is desirable to regulate or monitor drinking water threats. Where a conflict in mapping arises, the Source Protection Plan shall prevail (ROP, 2014).
- Wellhead Protection Area (WPA) – an area that is related to a wellhead and within which it is desirable to regulate or monitor drinking water threats (O. Reg. 287/07).

A.2 - Mapping of HVAs and SGRAs in the Region:

To provide context - a map showing the extent of HVAs and SGRAs in the Region is included as **Appendix 1**. The following is a brief description of the sources of the data:

- HVAs are a vulnerable area delineated for the Source Water Protection Assessment Report (Chapter 4 - NPCA, 2010). The HVAs were based largely upon earlier vulnerability mapping completed as part of the 2005 NPCA Groundwater Study. This earlier mapping combined two vulnerability assessment methods: (i) intrinsic susceptibility index (ISI) and (ii) aquifer vulnerability index (AVI).
- SGRAs are also a vulnerable area delineated for the Source Water Protection Assessment Report (Chapters 3 and 4 - NPCA, 2010). The SGRAs are classified as “significant” when they supply more water to an aquifer than the surrounding

area. SGRAs were identified where groundwater is recharged by a factor of 1.15 or more than the average recharge rate for the whole watershed.

A.3 - Role of the Planning Act vs. Role of the Clean Water Act:

In considering the protection of groundwater resources and drinking water systems in the Region there are primarily two pieces of provincial legislation that need to be considered, the Planning Act and the Clean Water Act.

	<i>Planning Act</i>	<i>Clean Water Act</i>
What is it?	The Planning Act sets out the ground rules for land use planning in Ontario. It describes how land uses may be controlled, and who may control them.	The Clean Water Act assists communities with protecting their municipal drinking water supplies at the source.
What tools are available?	Municipal Official Plans (Regional, Local), Zoning By-Laws (Local)	Source Protection Plans, Official Plans and Zoning By-Laws (which have been informed by the SPP)
How is it implemented?	Through a mix of Provincial tools such as the Provincial Policy Statement and Growth Plan, as well as upper and lower tier Official Plans.	Through a Source Protection Plan prepared by the Source Protection Committee and approved by the Province.
Who is primarily responsible?	Regional and Local Planning Departments, Regional and Local Councils.	Source Protection Authority, Risk Management Official.

In addition, there are other pieces of Provincial legislation that can apply on a topic-specific basis, for example: the Ontario Water Resource Act, Safe Drinking Water Act, Aggregate Resource Act, Municipal Act, and Ontario Building Code.

A.3 - Recent Reporting to Planning and Economic Development Committee:

At the January 15, 2020 PEDC meeting, there was a Councillor request for more information on how the Region has been involved in the Port Colborne Quarry project and the Region's obligations under Provincial policies.

In response to that request, PDS 8-2020, dated March 11, 2020 was prepared. PDS 8-2020 includes a discussion on the Region's involvement in the quarry project as well as additional information related to drinking water, source protection, the south Niagara aquifer, and the development of a new comprehensive water resource system (WRS) in the Region. PDS 8-2020 is attached for reference as **Appendix 2**.

A.4 - Provincial Planning Requirements:

There are a number of Provincial planning policies that require municipalities to protect groundwater and other water resources in their jurisdictions. This includes a relatively new Provincial requirement for a comprehensive water resource system (WRS). A WRS is currently being developed and will be implemented in Niagara for the first time as part of the new Niagara Official Plan. Other associated water resources planning policies are being brought into conformance with Provincial requirements through the new Niagara Official Plan project.

The policies of the Provincial Policy Statement (PPS, 2020) related to water resources are included in **Appendix 3**.

The policies of A Place to Grow: Growth Plan for the Greater Golden Horseshoe (Growth Plan, 2020) related to water resources are included in **Appendix 4**.

A.5 - Existing Regional Official Plan Policies:

Although the requirements for a comprehensive WRS are new, there are policies in the existing Regional Official Plan (ROP, 2014) related to water resources (both surface and groundwater). For example Policy 7.A.2.1 a) states that:

“Development and site alteration shall only be permitted if it will not have negative impacts, including cross-jurisdictional and cross-watershed impacts, on the quantity and quality of surface and groundwater”

The policies of the ROP are generally triggered when there is a proposed change in land use requiring an approval under the Planning Act (e.g. Official Plan Amendment,

Zoning By-Law Amendment, Draft Plan of Subdivision, Site Plan, etc.). For other forms of development and site alteration, other mechanisms apply, such as the Ontario Building Code and site alteration by-laws. The Region does not have a site alteration by-law; this is an area of local jurisdiction.

The complete policies of Section 7.A.2 'Water Resources' of the ROP, 2014 are included in **Appendix 5**.

A.6 - In-Effect Council Resolution:

At the January 15, 2020 PEDC meeting, the following resolution was adopted:

*“That staff **BE DIRECTED** to consider the highly vulnerable aquifer as an important, vital source of water to our rural residents in Niagara from Wainfleet, through Port Colborne to Fort Erie and ensure specific Official Plan policies are developed to reflect the importance and subsequent protection of this water source.”*

As directed, staff will include policies in the new Official Plan related to the HVA in south Niagara. The specific wording of these policies will be developed as Staff move forward with the Natural Environment Work Program and related Niagara Watershed Plan projects.

A.7 - Natural Environment Work Program and Niagara Watershed Plan Project:

The Natural Environment Work Program is the project that is being undertaken to identify and protect regional natural systems through the new Niagara Official Plan. Natural systems to be developed include a natural heritage system (NHS) and a water resource system (WRS). The WRS will include both groundwater and surface water features and areas.

Additional information regarding the Natural Environment Work Program can be found on the website for the new Official Plan:

<https://www.niagararegion.ca/projects/rural-and-natural-systems/default.aspx>

One of the three background reports that was completed for Natural Environment Work Program was the Watershed Planning Discussion Paper. This report identified the need for a watershed plan to be completed to inform various aspects of the new Niagara Official Plan (including the development of the WRS). To meet this need, a Consultant

team has been retained and a project to prepare a Niagara Watershed Plan (NWP) is underway. NPCA staff are involved in the project.

The NWP is being prepared in accordance with Provincial requirements, including direction that the new comprehensive water resource system be informed by watershed planning. The consideration of the south Niagara aquifer was identified as an important issue during the project kick-off phase.

A.8 - Source Water Protection Planning:

Source water protection planning is the process in which communities identify potential risks to local water quality and water supply and create a plan to reduce or eliminate the risks. Source water protection planning is undertaken based on a process prescribed by the Clean Water Act and its regulations.

In Niagara, the NPCA is the Source Protection Authority under the Clean Water Act. The program is administered by the Source Protection Committee (SPC) and staff support from the NPCA. Through the SPC, municipalities work to identify, assess and address risks to drinking water within their municipal Intake Protection Zones (IPZs) and Wellhead Protection Areas (WPAs).

Once risks and threats are identified through the Source Protection Plan, municipalities are responsible to develop and implement policies to reduce risks posed by activities located in areas under their jurisdiction. This could include requiring individual property owners to take action on significant drinking water threats located within IPZs and WPAs. In Niagara, this work has been completed and source protection policies are included in Section 7.E of the existing Regional Official Plan (ROP, 2014). These policies were subsequently included in local zoning by-laws. Policies in the Regional Official Plan must be directly informed by the Niagara Source Protection Plan, including the identification of IPZs (there are no municipal well water supplies in Niagara, and therefore no WPAs have been identified).

Schedule H of the ROP, 2014 – Source Water Protection is included as **Appendix 6**.

Additional information regarding drinking water source protection in Niagara can be found here: <http://www.sourceprotection-niagara.ca/>

In general, source water protection planning is a process that is undertaken in regards to municipal drinking water systems. In Niagara, all municipal drinking water is from

surface/lake-based sources. Within the Clear Water Act and O. Reg. 287/07 there is a very limited ability for other (i.e. non-municipal) drinking water systems to be evaluated and considered as part of the program. These provisions apply in circumstances where:

- there is a cluster of six or more private wells or intakes,
- the system is located in a settlement area, or
- the private residence is a designated facility or public facility as defined in O. Reg. 170/03 of the Safe Drinking Water Act.

The geographic area of what constitutes a 'cluster' is not defined in the Clean Water Act or its regulations, however, it is interpreted to be a concentration of systems in a small geographic area. A resolution from the Local Municipality is required for the Source Protection Committee to initiate the process to add a system to the Source Protection Plan. A technical evaluation process is required to support that process. The Province is the decision-making authority for the Source Protection Plan and any proposed changes.

A document entitled "Drinking Water Source Protection Primer: For Municipal Councillors" is included as **Appendix 7**.

A.9 - Provincial Direction Regarding the Implementation of Clean Water Act:

The Province does not maintain a guidance document for adding 'other systems' to source protection plans through the use of municipal resolution. However, the Province has advised that this is possible, subject to the criteria set out in the Clean Water Act and its regulations (as outlined above).

In considering this approach, the Province encourages municipalities to first look at how they can use other tools such as the Planning Act, Municipal Act, and Ontario Building Code to protect vulnerable sources of drinking water.

The Province further recommends that municipalities should encourage landowners to take steps to protect their own private wells by ensuring that their septic systems are functioning properly, and any on-site sources of contamination such as fuel oil tanks and pesticides, are properly stored and managed.

A.10 - Case Study – Trout Creek:

Trout Creek is a community in the Municipality of Powassan, ON, located near North Bay. The entire community is served by private drinking water and septic systems. Trout

Creek is understood to be the only community in Ontario that has attempted to add a 'cluster' of private drinking water wells into their jurisdiction's Source Protection Plan (SPP).

The experience in Trout Creek began with the municipality passing a resolution for the cluster of private drinking water wells to be included in the SPP. A technical evaluation process was undertaken, the system characterized, and threats identified. Based on the threats identified, numerous mitigation measures and policies were recommended including the mandatory inspections of private septic systems, a comprehensive risk management program to be implemented by the municipality, and other prohibitions.

Once the scope of the restrictions, and associated costs were understood and realized by the cluster residents and the municipality, a resolution was passed revoking the earlier resolution, and the process to include the cluster of wells was abandoned. The process took over 5 years and the community was not added to the SPP.

A.11 - Other Municipal Tools:

As noted above, there are other tools that can be used to protect vulnerable sources of drinking water and other sensitive groundwater resources. Some of these are as follows.

- **Site Alteration By-Laws** – are enacted under the Municipal Act and regulate the removal of topsoil, the placing or dumping of fill and the alteration of the grade of land in areas of the municipality. A component of a site alteration by-law can be to ensure that surface and groundwater quality is maintained. Site alteration by-laws are an area of local municipal jurisdiction.
- **Zoning By-Law** – like official plans, zoning by-laws are enacted under the Planning Act. An official plan sets out a municipality's general policies for future land use. Zoning by-laws are legal instruments that regulate the use of land and day-to-day administration. They contain specific planning requirements and are law within the municipality where they are enacted. A zoning by-law controls how land may be used and where buildings and other structures can be located. Zoning by-laws are an area of local municipal jurisdiction.
- **Development Approval Process** - through implementing Regional Official Plan policies, conditions of approval may be requested by Regional staff requiring that a property owner submit a hydrogeological assessment for certain development

applications located in an HVA (e.g. plan of subdivision, multiple lot severances and/or proposed residential lot(s) under 1 ha, etc.)

- Building Permits – are issued under the Building Code Act. A building permit is necessary to construct, renovate, demolish or change the use of a building. A Building Permit under Part 8 of the Building Code is also required for work regarding the installation, alteration, extension or repair of an on-site sewage or septic system. Building Code enforcement, including issuing building permits, is generally carried out by municipal building departments. In Niagara, in the case of on-site sewage or septic systems under Part 8 of the Code, issuing permits and enforcement is the responsibility of the Region in most local municipalities, while others (Welland, Wainfleet and West Lincoln) carry out the program internally.

Rural and other homeowners with private sewage or septic systems are also wastewater treatment system operators and need to take this role seriously. A regular maintenance schedule along with proactive care is the best strategy to lifelong system functionality and optimizing the system's performance. A homeowner's guide to a healthy sewage (septic) system can be found at the Ontario Onsite Wastewater Association's website and at the following link:

<https://www.oowa.org/homeowner-resources/>

A.13 - City of Port Colborne October 26, 2020 Resolution:

On October 26, 2020 the City of Port Colborne passed a resolution stating:

“That Council recognizes the Aquifer as identified in Schedule B3 of the Official Plan as a source water for the rural residents of the City; and

That the Director of Planning and Development be directed to amend the Official Plan to include the Aquifer such that the Aquifer receives the same consideration and protection from susceptible threats of contamination or adverse impact as the intake protection zones (IPZ-1 and IPZ-2); and

That the Region of Niagara, Township of Wainfleet, City of Welland, Town of Fort Erie and Niagara Peninsula Conservation Authority be notified of the City's action and be requested to pursue similar updates to their municipal planning documents in order to protect the aquifer.”

Region staff understand the above-captioned resolution to be direction to Staff. Region staff do not interpret the resolution as being an official resolution from City of Port Colborne Council requesting an addition be made to the Source Protection Plan.

In response for the resolutions request for updates to be made to Regional planning document - Regional Planning staff note we are already developing a comprehensive WRS for the Region as part of the new Niagara Official Plan. The WRS will include specific policies in regards to the south Niagara HVA in accordance with the January 15, 2020 PEDC resolution.

A copy of the October 26, 2020 City of Port Colborne resolution is included as **Appendix 8**.

A.14 - Ongoing City of Port Colborne Initiative:

Region Planning staff understand the City of Port Colborne is considering a Local Official Plan Amendment and Zoning By-Law Amendment for additional protection of the aquifer and private drinking water systems in response to the October 26, 2020 resolution. Region Planning staff have had ongoing discussions with City Planning staff regarding that initiative in preparation of this report.

Part B - Analysis of Information Reviewed

The proceeding sections provide an overview of the protection of water resources, drinking water, and drinking water systems from the perspectives of the Planning Act and Clean Water Act, as follows:

B.1 - Planning Act:

- There are policies in the Provincial Policy Statement (PPS, 2020) and A Place to Grow: Growth Plan for the Greater Golden Horseshoe (Growth Plan, 2020) for the protection of water resources including key hydrologic features and key hydrologic areas. The policies are in effect now, and must be considered by Regional and Local Planning staff in making recommendations and Regional and Local Councils when making decisions. Regional planning policies will be brought into conformance through the ongoing work to prepare the new Niagara Official Plan.

- There are policies within the existing Regional Official Plan (ROP, 2014) that require the protection of water resources, including a restriction on site alteration and development that would cause a negative impact on water quality.
- On January 15, 2020, PEDC passed a resolution directing staff to include specific policies for the protection of the south Niagara aquifer. This direction is being incorporated as part of the Natural Environment Work Program, Niagara Watershed Plan, and Niagara Official Plan projects. The specific wording of the policies will be developed as Regional staff move these projects to completion.
- On October 26, 2020, the City of Port Colborne passed a resolution directing additional protection of the aquifer including official plan and zoning by-law policies that provide the same level of consideration and protection as Intake Protection Zones in the City. As a local planning document, the Port Colborne Official Plan may include more specific and detailed policies, provided that they do not conflict with Provincial or Regional policy. Similarly, zoning by-laws are a local document that provide for the day-to-day regulation of land use controls.
- Policies included in the Regional Official Plan related to drinking water systems, Intake Protection Zones, and Wellhead Protection Areas must be directly informed by the Source Protection Plan, and the work of the Source Protection Committee. The Regional Official Plan cannot designate an Intake Protection Zones or Wellhead Protection Areas without it first being identified in the Source Protection Plan following a technical evaluation process and acceptance by the Province.

B.2 - Clean Water Act:

- Intake Protection Zone (IPZs) is the terminology used to describe an area around a surface water intake. Wellhead Protection Area (WPAs) is the terminology used in regards to groundwater wells. IPZs and WPAs are identified through a technical evaluation process.
- The Clean Water Act generally applies to municipal drinking water systems, with a very limited ability to apply to other systems based on criteria set out in the Act and its regulations. Other systems generally apply to clusters of private wells or other private systems for designated facilities.
- Once a property has been identified as being within an IPZ or WPA there will be restriction on existing and proposed land uses or activities that are considered

“significant threats”, including potentially existing or new agricultural uses. Restrictions can range from risk management to outright prohibitions. The nature of the restrictions and associated land use planning policies would be identified based on the specific characteristics of the area, existing land uses, vulnerability of the system and potential threats. This work would be completed through the technical evaluation process.

- In Niagara, the NPCA is the Source Protection Authority. The responsibility for source water protection planning is that of the Source Protection Committee, with staff support from the NPCA. The Province is the approval authority for Source Protection Plans. Municipalities would be responsible for undertaking and funding technical evaluations in support of requested changes to the Source Protection Plans.

Part C - Summary of Options

- There are existing Provincial policies requiring the protection of key hydrologic features, key hydrologic areas, and other water resources. Provincial direction also requires the identification of a water resources systems (WRS). In addition, the January 15, 2020 staff direction requires the identification of specific policies for the south Niagara aquifer. All of these requirements are being considered as part of the Natural Environment Work Program and Niagara Watershed Plan projects, and will be addressed as part of the Niagara Official Plan. Additional direction to Regional Planning Staff to complete this work is not required.
- There are a range of other mechanisms and existing tools for the protection of groundwater resources that should be used as available and where appropriate such as zoning by-laws, site alteration by-laws, and the provisions of the Ontario Building Code. Regional Council should support and encourage the most appropriate mechanisms for the protection of ground water resources.
- Regional Council should continue to encourage private land owners to take all necessary steps to maintain and protect any private drinking water systems on their properties. Niagara Region Public Health has information on well maintenance for residential settings available on their website at:

<https://www.niagararegion.ca/living/water/cistern-maintenance.aspx>
- Although an October 26, 2020 resolution was made by City of Port Colborne Council and was forwarded to the NPCA as the Source Protection Authority

under the Clean Water Act, Regional staff do not interpret this as being an official resolution to add a system to the Source Protection Plan. Should the City of Port Colborne, or other Local Council, pass a resolution requesting that private drinking water wells in south Niagara be considered as part of the Source Protection Planning program, Regional Council could choose to pass a resolution in support. As this would be a unique situation, it is expected that the Source Protection Committee would need to consult with the Province on resolution and the proposed approach. The completion of the required technical evaluation process, including costs, would be the responsibility of the municipality

Following a resolution by a Local Council and consultation with the Province, a technical evaluation process would be undertaken to accurately characterize the systems, identify the threats, and recommend appropriate mitigation and policies. A technical evaluation of this type would need to be completed by a comprehensive Consultant team. This type of technical evaluation is beyond the scope of the Region's Natural Environment Work Program or Niagara Watershed Plan projects. The completion of the technical studies that would need to be completed, including costs, would be the responsibility of the municipality.

However, Regional Planning staff are of the opinion that the provisions of the Clean Water Act are unlikely to apply to a number of private drinking water wells across a wide geographic area, and are not the appropriate mechanisms to achieve the desired outcome of protecting the Highly Vulnerable Aquifer in south Niagara.

There are more appropriate mechanisms and existing tools at the Local and Regional level for the protection of groundwater resources that should be used. These include official plan policies, zoning by-laws, site alteration by-laws, and Ontario Building Code regulations. The use of these tools should be prioritized and supported.

Alternatives Reviewed

As this report is for information, alternatives are not applicable.

Relationship to Council Strategic Priorities

This report was prepared in response to staff direction given at the December 9, 2020 Planning and Economic Development Committee.

Other Pertinent Reports

- PDS 8-2020 Overview of Regional Involvement in Port Colborne Quarry Proposal

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Appendices

Appendix 1	Map showing the extent of HVAs and SGRAs in the Region
Appendix 2	PDS 8-2020 Overview of Regional Involvement in Port Colborne Quarry Proposal (March 11, 2020)
Appendix 3	Policies of the Provincial Policy Statement (PPS, 2020) related to Water Resources
Appendix 4	Policies of A Place to Grow: Growth Plan for the Greater Golden Horseshoe (Growth Plan, 2020) related to Water Resources
Appendix 5	Policies in the existing Regional Official Plan (ROP, 2014) related to Water Resources
Appendix 6	Schedule H of the Existing Regional Official Plan (ROP, 2014) – Source Water Protection
Appendix 7	Drinking Water Source Protection Primer: For Municipal Councillors
Appendix 8	October 26, 2020 City of Port Colborne Resolution