

August 8, 2019

Memorandum

To: Client Services and Permissions Branch, Ontario Ministry of the Environment,
Conservation and Parks, 135 St. Clair Avenue West, 1st Floor, Toronto, ON

Submitted Online: Via Environmental Registry of Ontario website

C.C. Ian Roger, Chief Administrative Officer, Guelph / Eramosa Township
Amanda Knight, Clerk, Guelph / Eramosa Township
Nina Lecic, Clerk, Township of Puslinch
Donna Bryce, Clerk, County of Wellington
Aldo Salis, Director of Planning, County of Wellington
Dan Dobrin, Manager – Technical Support Section, West Central Region, MECP

From: Kyle Davis, Risk Management Official, Guelph/Eramosa Township and Township of
Puslinch

**RE: Permit to Take Water Amendment No. 2718-7S3RM7 (File reference: 0821-BCSLAK)
Lafarge Canada Inc. – Wellington site,
7051 Wellington Road 124, Guelph / Eramosa Township
Environmental Registry of Ontario (ERO) Number 019-0240**

The following comments are related to the above referenced Permit to Take Water (PTTW) application that was posted on the Environmental Registry of Ontario (ERO) on June 25, 2019 (ERO reference number 019-0240). The public commenting period ends on August 9, 2019.

These comments are provided in regards to the Clean Water Act, Grand River Source Protection Plan and source water protection implementation by Wellington Source Water Protection, a partnership of the Wellington County municipalities, on behalf of the Township of Guelph / Eramosa, Township of Puslinch and County of Wellington. These comments should not be construed as a hydrogeological, engineering, ecological or technical review of the application. These comments are strictly provided in regards to our municipalities' role in implementing the Clean Water Act and municipal source water protection.

In preparing these comments, the undersigned has attended a number of consultation meetings with Lafarge staff and consultants, Township and County staff and City of Guelph staff including attending the Lafarge hosted public open house on July 24, 2019. A site visit

was also completed of the Lafarge – Wellington site on July 19, 2019 and accompanied by Lafarge staff and consultants and City of Guelph staff.

General

1. Lafarge Canada Inc. (Lafarge) has submitted a Permit to Take Water (PTTW) application dated June 24, 2019 for their Lafarge – Wellington site including a technical report entitled Lafarge Wellington County Site – Quarry Dewatering and Water Use Investigation dated June 2019. The application is to amend existing PTTW No. 2718-7S3RM7 to allow an increase in water taking at the Lafarge-Wellington site. The application is requesting approval from the Ontario Ministry of the Environment, Conservation and Parks (MECP) to allow water taking from one well, three ponds and one watercourse (Speed River) for purposes of quarry dewatering and industrial purposes. The following table (Table 9 – page 48) is reproduced from the Lafarge application and summarizes the maximum water taking being proposed.

Table 9: Dewatering Assessment Summary

Source Name	Purpose	Maximum Taken Per Minute (L)	Maximum Number of Hours Taken Per Day	Maximum Taken Per Day (L)	Maximum Number of Days Taken Per Year
Quarry Sump	Dewatering	14,930	24	21,500,000 ¹	365
On-Site Supply Well	Manufacturing	303	12	218,000	365
Source Pond / Quarry Water Management Pond	Manufacturing	7,455	10	4,473,000	295
Holding Pond	Manufacturing	455	10	273,000	295
Speed River	Manufacturing	909	24	1,309,000	295

¹ Typical pumping rates for the Quarry Sump will be 6,000,000 L/d during full operation. The additional 15,500,000 L/d is for emergency purposes such as dewatering following a storm event.

2. The Lafarge –Wellington site comprises of three main parcels: the western parcel is municipally addressed as 7051 Wellington Road 124 (Roll number 2311000008015000000), the centre parcel has no municipal address (Roll number 2301000001066000000) and the eastern parcel has no municipal address (Roll number 2301000001061000000). Legal descriptions can be provided if required. The western parcel is located in the Township

of Guelph / Eramosa while the centre and eastern parcels are located in the Township of Puslinch. The closed Township of Puslinch road allowance for Sideroad 10 North separates the centre and eastern parcels. See attached figures for reference. It is understood that this PTTW application only applies to an initial phase of below water excavation on the western and central parcels and that the licensed extraction boundary for the Lafarge – Wellington site encompasses all three parcels. Based on the location of this site, it is requested that the Clerks of Township of Guelph / Eramosa, Township of Puslinch and County of Wellington be circulated on all future correspondence for this file with a copy directed to the undersigned.

Water Quality Wellhead Protection Areas

3. The Lafarge - Wellington site is located within Wellhead Protection Areas C and D (WHPA-C, WHPA-D), 5 and 25 year time-of-travel, respectively for the City of Guelph municipal wells. The vulnerability scores range from a score of 6 and 8 within the WHPA-C (eastern parcel and a portion of the central parcel) to scores of 4 and 6 within the WHPA-D. The WHPAs and vulnerability scoring are approved in the Grand River Source Protection Plan. The property has been identified as not being in a Highly Vulnerable Aquifer (HVA). Two of the attached figures show the applicable, water quality vulnerable areas, as defined by the *Clean Water Act, 2006*, applicable to the Lafarge - Wellington site.

All of these vulnerable areas should be referenced and discussed in any reviews by the MECP and any reports by Lafarge or their consultants. These vulnerable areas should be noted as approved vulnerable areas, pursuant to the Clean Water Act.

4. The Lafarge application discusses the Lafarge Wellington site as it relates to the water quality WHPAs. The application concludes that only dense non-aqueous phase liquids handling or storage would be considered a significant drinking water threat pursuant to the Clean Water Act and only for the portion of the site within the WHPA-C. This conclusion is correct and the applicable policy would be Risk Management Plans to ensure the proper handling and storage of these chemicals.

During the site visit on July 19, 2019, no activities were observed within the WHPA-C at the Lafarge – Wellington site that pertained to dense non-aqueous phase liquids handling or storage. The portion of the site within the WHPA-C was observed to be a mixture of

former sand and gravel pits, closed road allowance, agricultural fields and / or vegetated woodlands or fields. The primary use was either passive recreation or farming. Additionally, the majority of the site within the WHPA-C is in the eastern parcel where no excavation activities are proposed as part of this application.

5. It is noted that there is a Clean Water Act requirement for municipalities to report and track the creation of preferential pathways (transport pathways) to the Source Protection Authority. The purpose of this requirement is to ensure any updates to the vulnerability scoring used in the water quality WHPAs includes up to date information. Transport pathways include the excavation of aggregate. A Transport Pathway Notice is attached and has been sent to the Lake Erie Source Protection Authority and served to the applicant pursuant to the Clean Water Act.
6. The Lafarge application notes that excavation will not extend below the depth of the Vinemount aquitard (285 metres above sea level), however, the licenced excavation depth in the site's Aggregate Resources Act approval (Licence #5514) and operational plans (Appendix K of the application) is 280 metres above sea level. The application also notes that the Vinemount appears to be naturally absent in portions of the site and that the municipal aquifer unit (Gasport formerly Amabel) can be present as reef mounds. It is expected that the MECP will consider this information in their review of the PTTW application.

Water Quantity Wellhead Protection Areas

7. The Lafarge - Wellington site is located within a Wellhead Protection Area Q (WHPA-Q) that was accepted by the Lake Erie Source Protection Committee as part of the Guelph / Guelph / Eramosa Tier 3 water budget study. The risk level for the WHPA-Q is significant.

The attached water quantity map shows the applicable vulnerable areas, as defined by the *Clean Water Act*, 2006, applicable to the Lafarge - Wellington site. The Lafarge – Wellington site is wholly located within the WHPA-Q and the majority of the site (majority of all three parcels) are located within a significant groundwater recharge area (SGRA), as defined by the Clean Water Act. Both the WHPA-Q and the SGRA are defined vulnerable areas pursuant to the Clean Water Act. The SGRA mapping is

approved as part of the Grand River Source Protection. At this time, however, the WHPA-Q has not yet been incorporated into the Grand River Source Protection Plan or Assessment Report and therefore the WHPA-Q is not currently in legal effect. The results of the Tier 3 study and the full report are publicly available at <https://www.sourcewater.ca/en/index.aspx>. Further information can be found at <http://www.wellingtonwater.ca/en/how-does-this-affect-me/tier-3-water-budget-studies.aspx>.

All of these vulnerable areas and supporting Tier 3 studies should be referenced and discussed in any reviews by the MECP and any reports by Lafarge or their consultants. The differences in approved and draft should be noted when discussing SGRA and WHPA-Q.

8. Due to the significant risk level assigned to the WHPA-Q, a project is currently ongoing by Grand River Conservation Authority, City of Guelph, County of Wellington, Ontario Ministry of the Environment, Conservation and Parks (MECP), the Township of Guelph/Eramosa, Township of Puslinch and other municipalities (project team) to complete the steps necessary to update the Grand River Source Protection Plan and Assessment Report with water quantity policies. Eventually policies will be added to the Grand River Source Protection Plan to manage consumptive water taking and recharge reduction activities within the WHPA-Q. The draft policies are scheduled for public consultation in 2020, however, draft policy approaches are publicly available along with further information on the current consultation with a Community Liaison Group (including Lafarge), at <https://www.sourcewater.ca/en/index.aspx>.

Draft policy text has also been shared with the MECP as part of early engagement and review through MECP's Source Protection Branch and discussions have been ongoing through the summer via the project team on the PTTW policy text. It is understood that the MECP's West Central Region's Technical Support Section has been provided the draft policy text including proposed policy wording regarding terms and conditions for the MECP Director to consider when issuing PTTWs within the WHPA-Q. It is our expectation that the MECP will take into consideration the draft policy text as it relates to PTTW and will review the potential for this application to result in interference or impacts to the existing municipal wells including using the results of the Tier 3 water budget assessment, in their assessment of this application.

9. One of the draft policy approaches and draft policies is the establishment of a water management working group consisting of the various agencies and municipalities involved in the current policy project. The purpose of the water management working group is, in part, to provide a forum for further discussions and input on PTTW applications in the WHPA-Q. It is recommended that the MECP take into consideration this draft policy approach and policy text and that further consultation occur via the proposed water management working group or a similar meeting of the municipalities, agencies (including Grand River Conservation Authority) and the Province involved in the review of this PTTW application. The Townships of Guelph / Eramosa and Puslinch and the County of Wellington, through either source protection and / or other staff, would be pleased to participate in those meetings or working groups.
10. It is understood the PTTW application is being reviewed by MECP's hydrogeologist and surface water specialists in the West Central Region's Technical Support Section. It is expected that the MECP will review the potential for this application to impact the Speed River and tributaries, Provincially Significant Wetlands, municipal and private wells and other impacts including cumulative impacts. It is noted that Lafarge has proposed a monitoring program including groundwater, surface water private wells and natural environment. The MECP review should ensure that these monitoring programs are sufficient to monitor the proposed application including potential impacts to the Speed River and tributaries, Provincially Significant Wetlands, municipal and private wells and other impacts including cumulative impacts and that appropriate terms and conditions are added to the PTTW and / or Aggregate Resources Act approvals as deemed necessary by the MECP and / or Ontario Ministry of Natural Resources and Forestry.
11. The MECP is requested to thoroughly review the proximity of private water wells to this application that are located in both Townships including the 500 metre radius, proposed by Lafarge, for private well monitoring and well complaint response. The MECP review should ensure that the proposed radius and monitoring program is sufficient. These private water wells are used for a variety of domestic / residential and commercial / industrial / agricultural uses. Further it is expected that the MECP will review the potential for this application to result in well interference with the existing private water wells and it is recommended that a well complaint procedure be considered as a term or condition of the PTTW.

12. It was noted by Lafarge staff and consultants, during consultation meetings, that recharge of groundwater is proposed through an infiltration trench to the wetland and shallow overburden / bedrock. It is understood that this will be detailed in an amendment to Lafarge’s Environmental Compliance Approval (ECA) 0290-6PHGPS. As of August 7, 2019, the ECA amendment had not been posted on the ERO for comment. The MECP should consider, during the PTTW review and the ECA review, the draft recharge reduction policy approaches and policy text that have been developed by the project team described in comment 8. Additionally, it is requested that the Clerks of Township of Guelph / Eramosa, Township of Puslinch and County of Wellington be circulated on all future correspondence for the ECA amendment with a copy directed to the undersigned.

If you require further information, please contact:

Kyle Davis, Risk Management Official
519-846-9691 ext 362
kdavis@centrewellington.ca

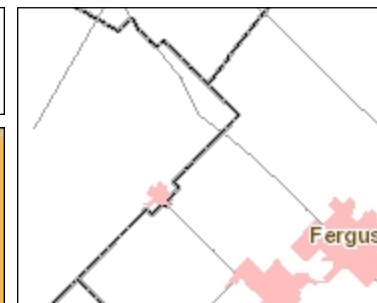
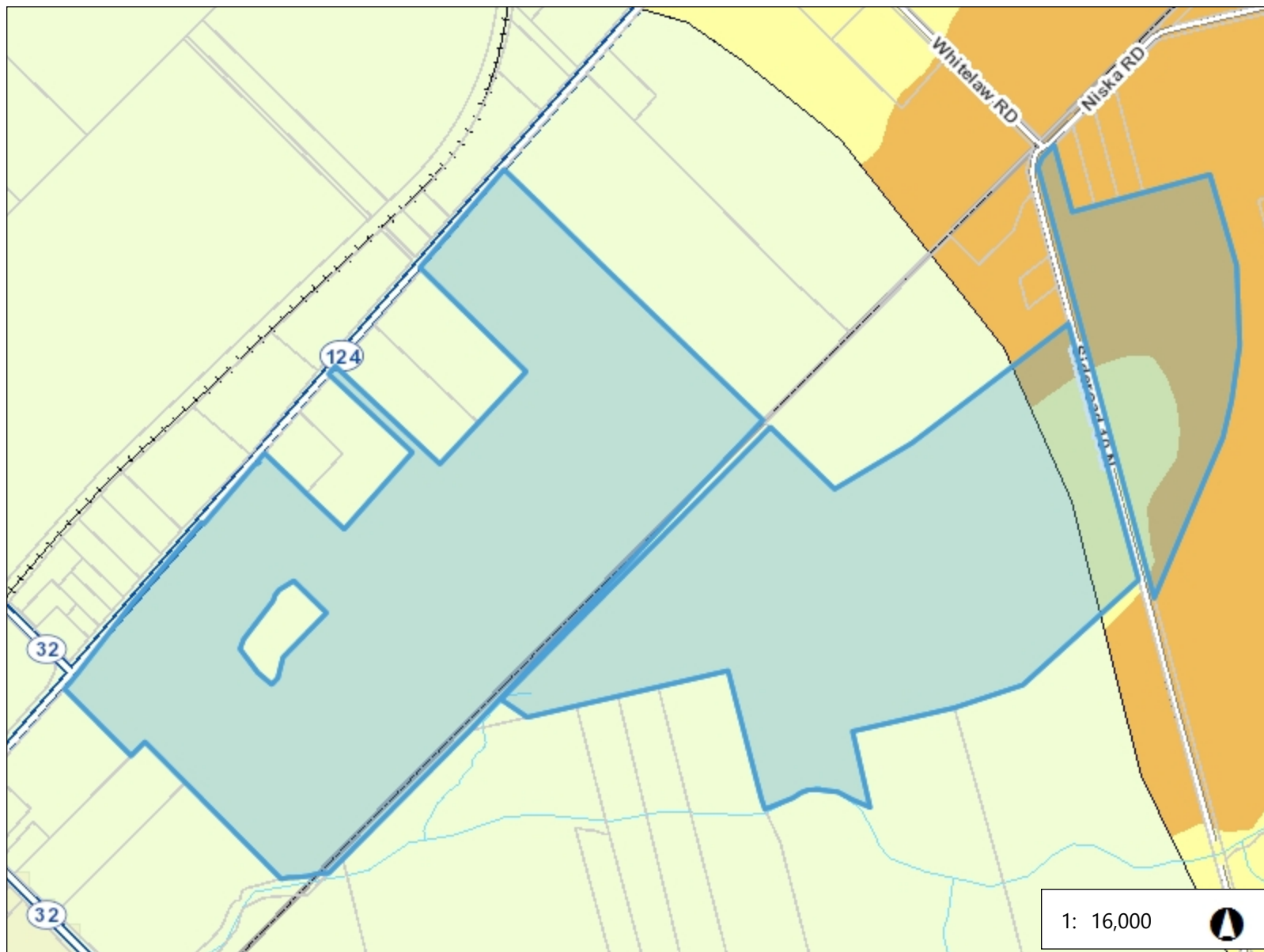
Attachments

Figure – Wellhead Protection Area – Quality


















Figure – Wellhead Protection Area – Quantity

Figure – Highly Vulnerable Aquifer and Air Photo

Transport Pathway Notice – Lafarge Wellington, Guelph / Eramosa and Puslinch



Legend

-  Parcels
- Roads**
 -  Local Road
 -  County Road
 -  Highway
-  Railways
-  Watercourses
-  Municipalities
-  Well Locations
- Wellhead Protection Area Boundaries**
 -  A
 -  B
 -  C
 -  D
- Vulnerability Score**
 -  10
 -  8
 -  2, 4, 6 (A, B or C)
 -  2, 4, 6 (D)
-  HVA RoadsLookup

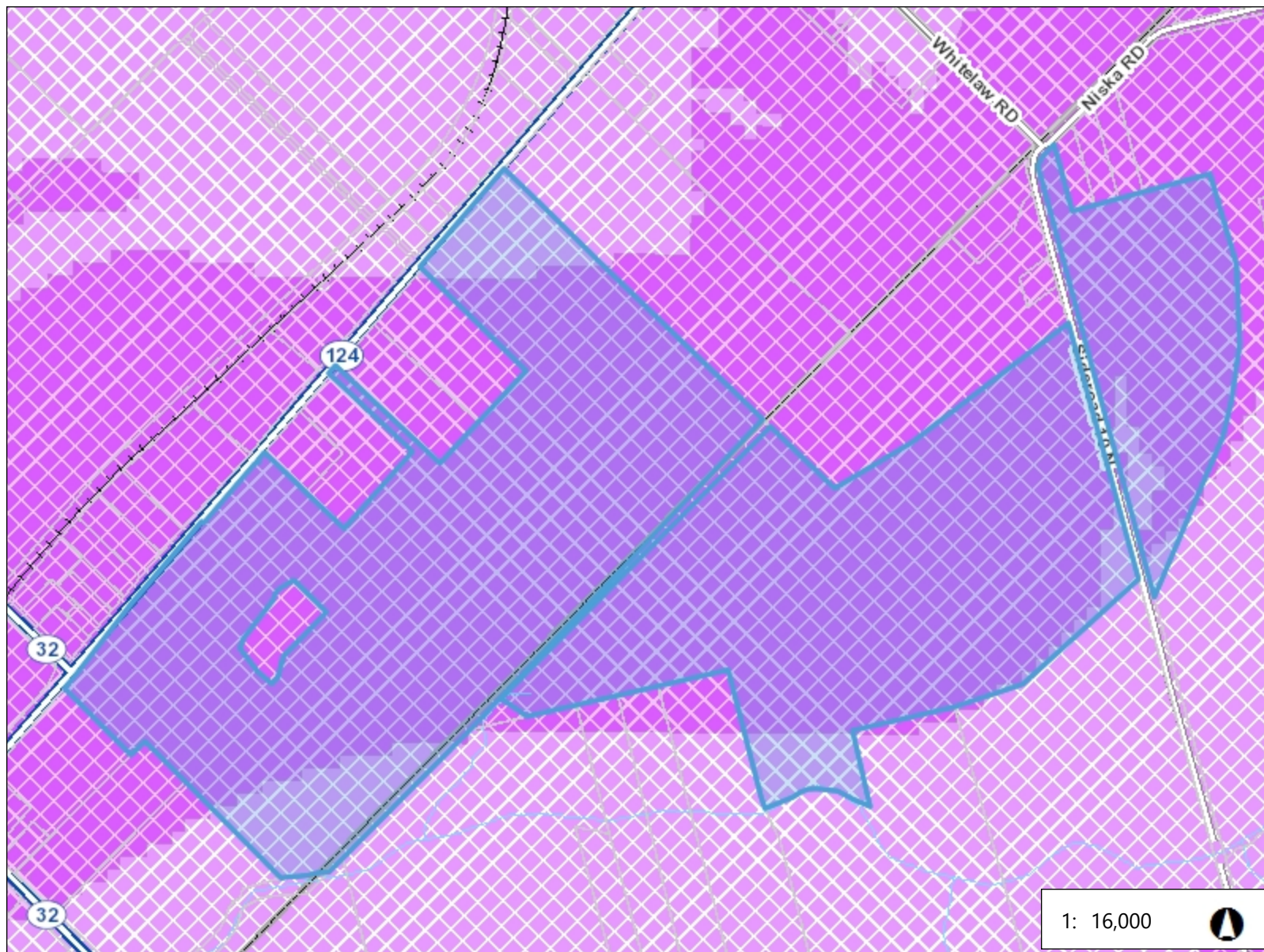
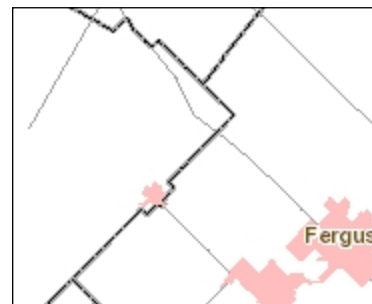
1: 16,000 

0.8 0 0.41 0.8 Kilometers



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Notes



Legend

- Parcels
- Roads**
 - Local Road
 - County Road
 - Highway
- Railways
- Watercourses
- Municipalities
- Well Locations
- Q1 and Q2 Boundary
- Q1 and Q2**
 - Approved
 - Draft
- SGRA
- RoadsLookup

1: 16,000



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Notes

Lake Erie Region Transport Pathway Notice



This template is being provided to satisfy transport pathways reporting requirements in accordance with Section 27 (3) and (4) of O. Reg. 287/07 made under the *Clean Water Act, 2006*.

To Be Completed by Applicant:

Name of Applicant: Lafarge Canada Inc. Phone Number: see application
Email Address: see application Date of Application: June 24, 2019
Location of proposed activity (please provide description if activity not restricted to a single address):

The Lafarge –Wellington site comprises of three main parcels: the western parcel is municipally addressed as 7051 Wellington Road 124 (Roll number **2311000008015000000**), the centre parcel has no municipal address (Roll number **2301000001066000000**) and the eastern parcel has no municipal address (Roll number **2301000001061000000**). Legal descriptions can be provided if required. The western parcel is located in the Township of Guelph / Eramosa while the centre and eastern parcels are located in the Township of Puslinch. The closed Township of Puslinch road allowance for Sideroad 10 North separates the centre and eastern parcels. See attached figures for reference. It is understood that this PTTW application only applies to an initial phase of below water excavation on the western and central parcels and that the licensed extraction boundary for the Lafarge – Wellington site encompasses all three parcels. _____

Please check the activities below that apply to this application:

- | | |
|--|--|
| <input type="checkbox"/> Construction of water wells or monitoring wells | <input type="checkbox"/> Re-grading associated with new development |
| <input type="checkbox"/> Construction of oil and gas wells | <input type="checkbox"/> Construction of foundation envelopes |
| X Excavation of pits and quarries | <input type="checkbox"/> Construction of geothermal wells/earth energy systems |
| <input type="checkbox"/> Construction of man-made ponds | <input type="checkbox"/> Construction of linear sewage collection systems and linear utility corridors |

Please describe the proposed activity. If applicable, include pertinent details such as maps/cross-sections/figures; depth of excavation; distance to municipal wells, ponds; contaminated or potentially contaminated site(s), etc. (use additional sheets of paper if needed)

_____Proposed bedrock excavation – see Golder report from Lafarge_____

Lake Erie Region Transport Pathway Notice



For Office Use Only:

Upon completion, please submit the following information to Lake Erie Region Source Protection Staff.

Municipality: Guelph / Eramosa and Puslinch _____

Submitted By: Kyle Davis _____

Email Address: _____kdavis@centrewellington.ca _____

Date Submitted: August 8, 2019 _____

Please list the approvals the applicant requires to engage in the proposed activity: _____ PTTW and ECA (Industrial Sewage Works, ARA approvals _____

Please check one of the following options:

Yes, the proposed activity *is* a transport pathway that increases the vulnerability of a raw water supply of a drinking water system from low to high

If applicable, please provide the change in vulnerability that may result from the proposed activity:

Intrinsic vulnerability rating prior to activity: _____ ; potential new intrinsic vulnerability rating _____