



July 3, 2020



Memorandum

To: Permit To Take Water Evaluator, Drinking Water and Environmental Compliance Division
West Central Region Office (Hamilton), 119 King Street West, Floor 12, Hamilton, ON

Submitted Online: Via Environmental Registry of Ontario website

CC: Colin Baker, Dino Maisero, Township of Centre Wellington

From: Emily Vandermeulen, Risk Management Inspector, Township of Centre Wellington

Reviewed by: Kyle Davis, Risk Management Official, Township of Centre Wellington

**RE: ERO Number: 019-1869 (Ministry Reference Number 7020-BQ6NMW),
Greenwood Ready Mix Limited
Permit to Take Water – 7436 Wellington Road 18, Elora**

Please note that the Township of Centre Wellington will also be providing separate hydrogeological comments at a later date to the Ministry including comments relevant to Comment 7 below.

General

1. The following comments are related to the above referenced Permit to Take Water (PTTW) application (Ministry reference number 7020-BQ6NMW). This is an application for a new permit, for 10 years.
2. 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. 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 municipality's role in implementing the *Clean Water Act* and municipal source water protection.
3. Greenwood Ready Mix Ltd. is a concrete facility that provides ready-made concrete to construction sites for immediate use. The concrete mix requires 6% water/load, which, during construction season, can mean taking up to 96.6 m³/day. As this exceeds the



provincially prescribed maximum of a 50,000 L/day taking without a PTTW, Greenwood is now applying for a permit.

Water Quality

4. The subject property is located within a Wellhead Protection Area D (WHPA-D), 25 year time-of-travel, with a vulnerability score 4 for the Elora municipal wells. The property has been identified as not being in a Highly Vulnerable Aquifer (HVA). The attached map (WHPA_Map_Greenwood) shows the applicable vulnerable areas, as defined by the *Clean Water Act*, 2006, applicable to the subject property. The applicable source protection plan is the Grand River Source Protection Plan. Currently, there are no significant threat policies that affect the subject property, however, activities in these vulnerable areas could be moderate or low drinking water threats. These activities include the handling and storage of dense non-aqueous phase liquids, organic solvents, and the application and storage of sodium and/or chloride. Further, the handling and storage of liquid fuel is also a low drinking water threat in these vulnerable zones.
5. Additionally, new, draft delineations of the municipal WHPAs have been modelled and, though currently not approved by the Ministry of the Environment, Conservation and Parks, they were submitted to the Province for approval in spring 2020. The attached map (WHPA_Map_Greenwood_Draft) shows the new vulnerable areas, as defined by the *Clean Water Act*, 2006, applicable to the subject property. Once approved, the property will be located within a WHPA-C, five year time-of-travel with a vulnerability score of 6. In this zone, the handling of chemicals, specifically dense non-aqueous phase liquids (DNAPLs), are a significant drinking water threat, to which Grand River Source Protection policies apply.

For further information please go to:

For Assessment Report, including maps

http://www.wellingtonwater.ca/en/wswp-resources/resources/GRSPA_AR_updated_S6_Wellington_highlighted.pdf

For Source Protection Plan policies

http://www.wellingtonwater.ca/en/wswp-resources/resources/GRSPA_SPP_updated_S7-Wellington_highlighted.pdf

6. Given the location of the subject property within the quality WHPAs, the Ministry should consider adding terms and conditions, where appropriate, that reflect best management practices. It is recognized that the Ministry may not be able to incorporate any or all of these best management practices within the terms and conditions of the PTTW, as they are not directly related to the water taking, however, the Ministry is requested to



consider which could be incorporated. It is also noted that the Township of Centre Wellington, through Wellington Source Water Protection, will be following up with the subject property in relation to the handling and storage of dense non-aqueous phase liquids. If DNAPL handling and storage activities are present, a Risk Management Plan pursuant to the Grand River Source Protection Plan and the *Clean Water Act* would be required.

7. It is noted that the Greenwood Production well draws water from both the Guelph and Gasport formations. It is recommended that the Ministry consider whether this represents a cross connection between the Guelph and Gasport aquifers and a potential transport pathway for contaminants and whether any terms and conditions are required in the PTTW. If a transport pathway is present, it must be reported to the Grand River Source Protection Authority by Wellington Source Water Protection, on behalf of the Township, and as a result the vulnerability scores may be increased in that area. It is requested that the Ministry inform Wellington Source Water Protection of its conclusion regarding whether a transport pathway is present so any required transport pathway reporting can be completed.

Water Quantity

8. The property is not located within a significant groundwater recharge area (SGRA). An SGRA is an area where greater than normal recharge of water down to the aquifer is occurring. Please see attached map (WHPA_Map_Greenwood_Q).
9. The Tier 3 water budget found that, while the Elora/Fergus municipal wells can meet allocated rates under average and drought conditions, future demand (up to 2041) will exceed the potential supply provided by the existing wells. It further concluded, in the Risk Assessment, that due to these factors, a significant risk level was warranted. One of the recommendations of that report was that all consumptive water uses and areas of groundwater recharge reductions within the WHPA-Q be classified as a significant water quantity threat. It should also be noted that the subject property is within 3500 m of all three municipal wells in Elora, and less than 1900 m from E1.
10. The Ministry should note that the subject property is within a Wellhead Protection Area Q (WHPA-Q) with a significant risk level (see section 9) that has been accepted by the Lake Erie Source Protection Committee as part of a Tier 3 water budget study. Please see attached map (WHPA_Map_Greenwood_Q). The results of that study and the full report are publicly available at <https://www.sourcewater.ca/en/index.aspx>. It is noted, however, that the Tier 3 study results have 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 or in the County in Wellington Official Plan schedules. Further



information can also be found at <http://www.wellingtonwater.ca/en/how-does-this-affect-me/tier-3-water-budget-studies.aspx>.

11. Draft water quantity policies for the Wellington County Chapter of the Grand River Source Protection Plan were presented to the Lake Erie Source Protection Committee and these, as well as the technical work updates to the Assessment Report, are scheduled for public consultation in winter 2021. Further information can be found under the June 25, 2020 meeting agenda package at <https://calendar.sourcewater.ca/default/Index?StartDate=06/25/2020&EndDate=06/25/2020> For reference, please see the draft PTTW policy wording below:

To ensure an activity that takes water from an aquifer without returning the water taken to the same aquifer ceases to be or never becomes a significant drinking water threat where the activity is or would be significant drinking water threat as prescribed by the Clean Water Act, 2006, the following shall apply:

a) For any existing consumptive water taking, the Ministry of the Environment, Conservation and Parks shall review and, if necessary, amend Permits To Take Water (PTTW) and/or Drinking Water Works Permits to ensure that the municipal supply will not be adversely impacted, and to consider the Tier 3 water budget results including consideration of water supply requirements for planned growth and prolonged drought. The Ministry of the Environment, Conservation and Parks should circulate Environmental Registry notices to the municipalities and Grand River Conservation Authority and have due regard for comments from the Grand River Conservation Authority and municipalities regarding new or revised conditions of approvals. To achieve this, the Ministry of the Environment, Conservation and Parks should consider the following terms and conditions that address:

- i. Groundwater and surface water monitoring;*
- ii. Demand management: water needs assessment (review of permitted maximum takings) and water efficiency measures;*
- iii. Phased approach to assess impacts;*
- iv. Information sharing with the Ministry of the Environment, Conservation and Parks, municipalities and conservation authorities including a condition of approval for permit holders to provide municipalities and conservation authorities technical reports and monitoring data gathered pursuant to a condition of the PTTW (as per bullet i) above);*



- v. *Measures to increase the optimization of the municipal water supply system where appropriate; and*
- vi. *Drought management planning for drought sensitive wells/ systems.*

It is recommended that the MECP consider the above, draft policy text and add the appropriate terms and conditions to the subject property PTTW.

Based on the information provided in this application and its supporting documents, as well as the comments outlined above, it is recommended that the Ministry consider the recommendations in comments 6, 7 and 11 while reviewing this PTTW application and add terms and conditions to the PTTW as appropriate.

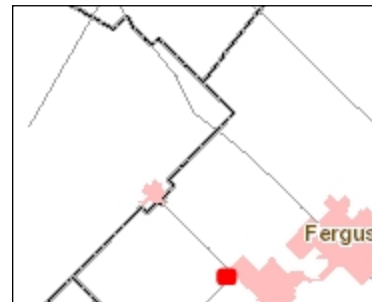
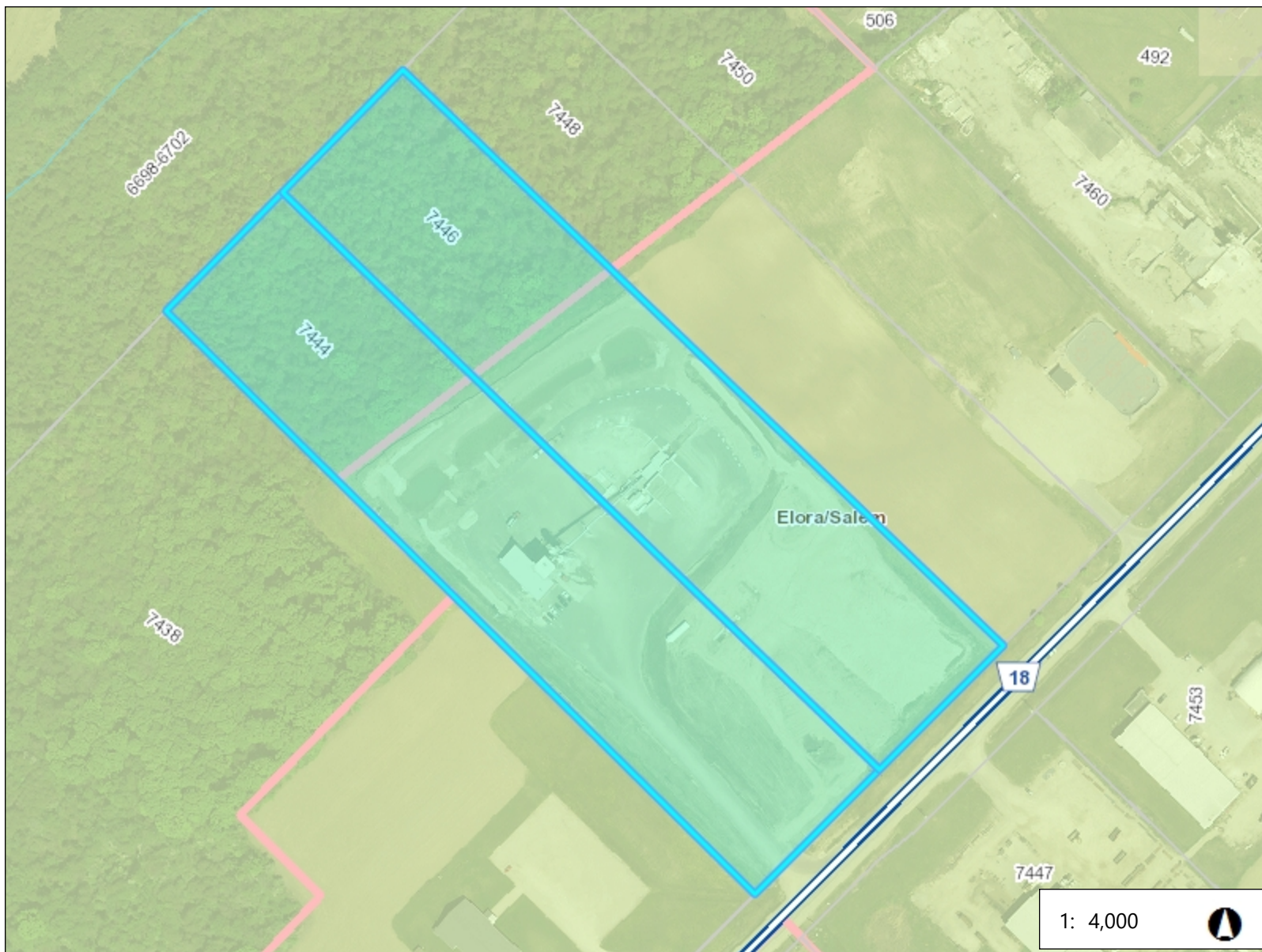
If you require further information, please contact one of the undersigned:

Sincerely,

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519-846-9691 ext 365
evandermeulen@centrewellington.ca

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

Attachment 1 – WHPA_Map_Greenwood
Attachment 2 – WHPA_Map_Greenwood_Draft
Attachment 3 – WHPA_Map_Greenwood_Q



Legend

- Parcels
- Roads
 - Local Road
 - County Road
 - Highway
- Waterbodies
- Watercourses
- Urban Centres and Hamlets
- 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: 4,000

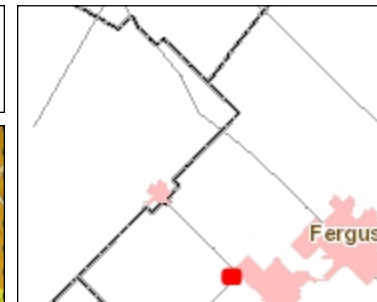
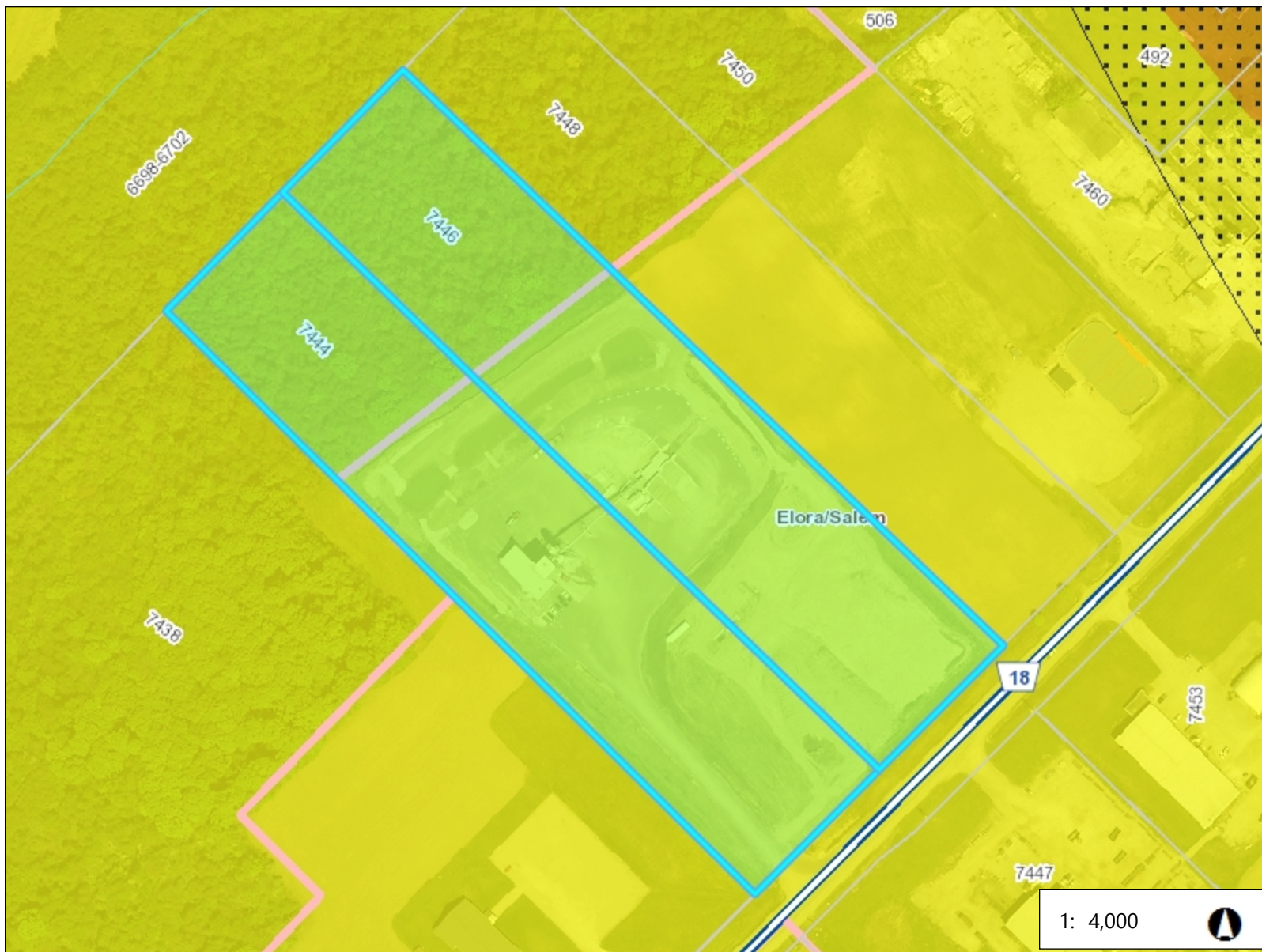
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THIS IS NOT SURVEY DATA. Parcels - Teranet 2002, Wellington County 2018

Notes



Legend

- Parcels
- Roads**
 - Local Road
 - County Road
 - Highway
- Waterbodies
- Watercourses
- Urban Centres and Hamlets
- CW_IssueContributingArea_(C)
- CW_WellheadProtectionArea_
- <all other values>
- A
- B
- C
- D
- CW_VulnerabilityScore_(DRAFT)**
 - 10, A; 10, B
 - 2, C; 6, C; 6, B
 - 2, D; 4, D; 6, D
 - 8, B; 8, C
- Well Locations
- RoadsLookup

1: 4,000

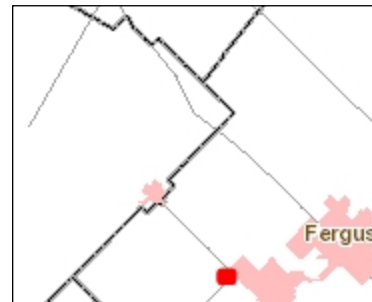
0.2 0 0.10 0.2 Kilometers

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Notes



Legend

- Parcels
- Roads**
 - Local Road
 - County Road
 - Highway
- Waterbodies
- Watercourses
- Urban Centres and Hamlets
- Well Locations
- Q1 and Q2 Boundary
- Q1 and Q2
 - Approved
 - Draft
- SGRA
- RoadsLookup

0.2 0 0.10 0.2 Kilometers



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