



October 1, 2020

## Memorandum

To: Permit To Take Water Evaluator, Ontario Ministry of the Environment, Conservation and Parks - 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 and via email to Michael Prusinski, Environmental Scientist*

CC: Colin Baker, Managing Director of Infrastructure Services, Township of Centre Wellington  
Dino Maisero, Manager of Environmental Services, Township of Centre Wellington  
Kathryn Baker, Hydrogeologist, Source Protection Planning, Ministry of the Environment, Conservation and Parks

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

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

RE: **ERO Number: 019-2311 (Ministry Reference Number 0140-BS7PU7),  
Alma Aquaculture Research Station  
Permit to Take Water – 6957 Eighth Line West, Centre Wellington**

## General

1. The following comments are related to the above referenced Permit to Take Water (PTTW) application (Ministry reference number 0140-BS7PU7) submitted to the Ontario Ministry of the Environment, Conservation and Parks (Ministry). This is an application for a renewal of an existing 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. The Alma Aquaculture Research Station (AARS) is a research facility run by the University of Guelph and is located in the western part of the Township of Centre Wellington, near the borders with Townships of Mapleton and Woolwich. Pumping wells #1 and #2 (PW1, PW2) as well as Observation well #3 (OW3) are all large bore wells that were drilled in 1987. Each of these wells has a maximum permitted taking of approximately 2.4 million L/day, 365 days/year. Pumping wells #4, #5 and #6 (PW4, PW5, PW6) are small bore wells, drilled in 1998, and are each permitted to take a maximum of approximately 980,000 L/day, 365 days/year. The water from these wells is then degassed and oxygenated for use in the four research buildings, containing three labs, a hatchery and an isolation building. The wastewater is then sent for treatment, reoxygenated, and used a second time to support the fish in the 14 outdoor tanks. The wastewater is then treated again before being directed to a collecting channel and then a polishing pond, and ultimately into a small creek that forms part of the headwaters for Canagagigue Creek. AARS is applying to renew their existing permit, with no changes to the pumping rates, for 10 years. The Permit Renewal Form and a supplemental document, Description of Proposed Water Taking Operations, Water Taking Needs and Water Conservation, were used for this review.

### **Water Quality**

4. The subject property is not located within a Wellhead Protection Area for quality. Further, the property has been identified as not being in a Highly Vulnerable Aquifer (HVA). The attached map (Figure 1) shows the applicable vulnerable areas, as defined by the *Clean Water Act*, 2006, in relation to the subject property. The applicable source protection plan is the Grand River Source Protection Plan.

### **Water Quantity**

5. 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 (Figure 2).
6. The Ministry should note that the subject property is within a Wellhead Protection Area Q (WHPA-Q) with a significant risk level that has been accepted by the Lake Erie Source



Protection Committee as part of a Tier 3 water budget study. Please see attached map (Figure 2). 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 of 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>.

7. 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 on June 25 and October 1, 2020 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 respective meeting agenda packages at <https://calendar.sourcewater.ca/>

Pre-consultation will begin October 5, 2020 and a pre-consultation notice will be sent by the Grand River Source Protection Authority to the Ministry. For ease of reference, please see the draft, pre-consultation PTTW policy wording (Policy 22.1) below:

*To ensure that any Consumptive Water Taking ceases to be a significant drinking water threat, where this activity is a significant drinking water threat as prescribed by the Clean Water Act, 2006, the Ministry of the Environment, Conservation and Parks shall review and, if necessary, amend existing PTTWs and/or Drinking Water Works Permits to ensure that the municipal supply will not be adversely impacted, taking into consideration Tier 3 Study results/recommendations, water supply requirements for planned growth and prolonged drought outlined in Water Supply Master Plans and available data, reports and/or recommendations from monitoring programs established pursuant to policies in the County of Wellington Chapter of the Grand River Source Protection Plan. The Ministry of the Environment, Conservation and Parks, where appropriate, shall consider establishing conditions in PTTWs and Drinking Water Works Permits to achieve this objective including but not limited to conditions which require:*



- a. *groundwater and surface water monitoring related to municipal drinking water supplies;*
- b. *assessment of demand management: water needs assessment (review of permitted maximum takings) and water efficiency measures;*
- c. *a phased approach to assess impacts;*
- d. *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 a.) above);*
- e. *measures to increase the optimization of the municipal water supply system where appropriate; and*
- f. *drought management planning for drought sensitive wells/systems.*

*The Ministry of the Environment, Conservation and Parks shall circulate Environmental Registry notices for proposed new or amended PTTWs and Drinking Water Works Permits to the Municipalities and Grand River Conservation Authority and have due regard for comments from the Grand River Conservation Authority and the Municipalities regarding proposed new or amended PTTWs and Drinking Water Works Permits and new or revised conditions of approvals related thereto.*

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 review and consider the draft policy text provided in section 7 and add terms and conditions to the subject property PTTW, as appropriate. In particular, it is noted that this PTTW renewal is for a ten year period and the current PTTW does not have many of the suggested terms and conditions listed in draft policy (for example groundwater monitoring related to municipal water supplies or water efficiency / demand management). It is noted that there is a current condition related to basic water quantity monitoring and that the University of Guelph has already implemented some water efficiency measures voluntarily, however, neither meet the full intent of the draft policy



language. The Ministry should also be aware that the Township of Centre Wellington Water Supply Master Plan identifies potential municipal water well locations in the general vicinity of the subject property and the terms and conditions suggested will likely become more relevant over the next ten years as municipal well locations increase.

If you require further information including access to any of the documents referenced above, we would be pleased to discuss these comments with you, please do not hesitate to contact one of the undersigned.

Sincerely,

Emily Vandermeulen, Risk Management Inspector  
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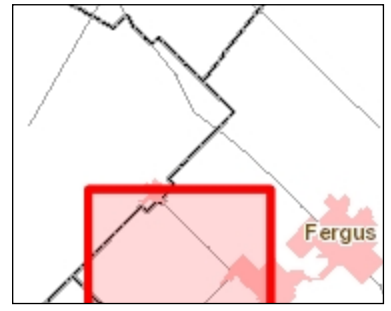
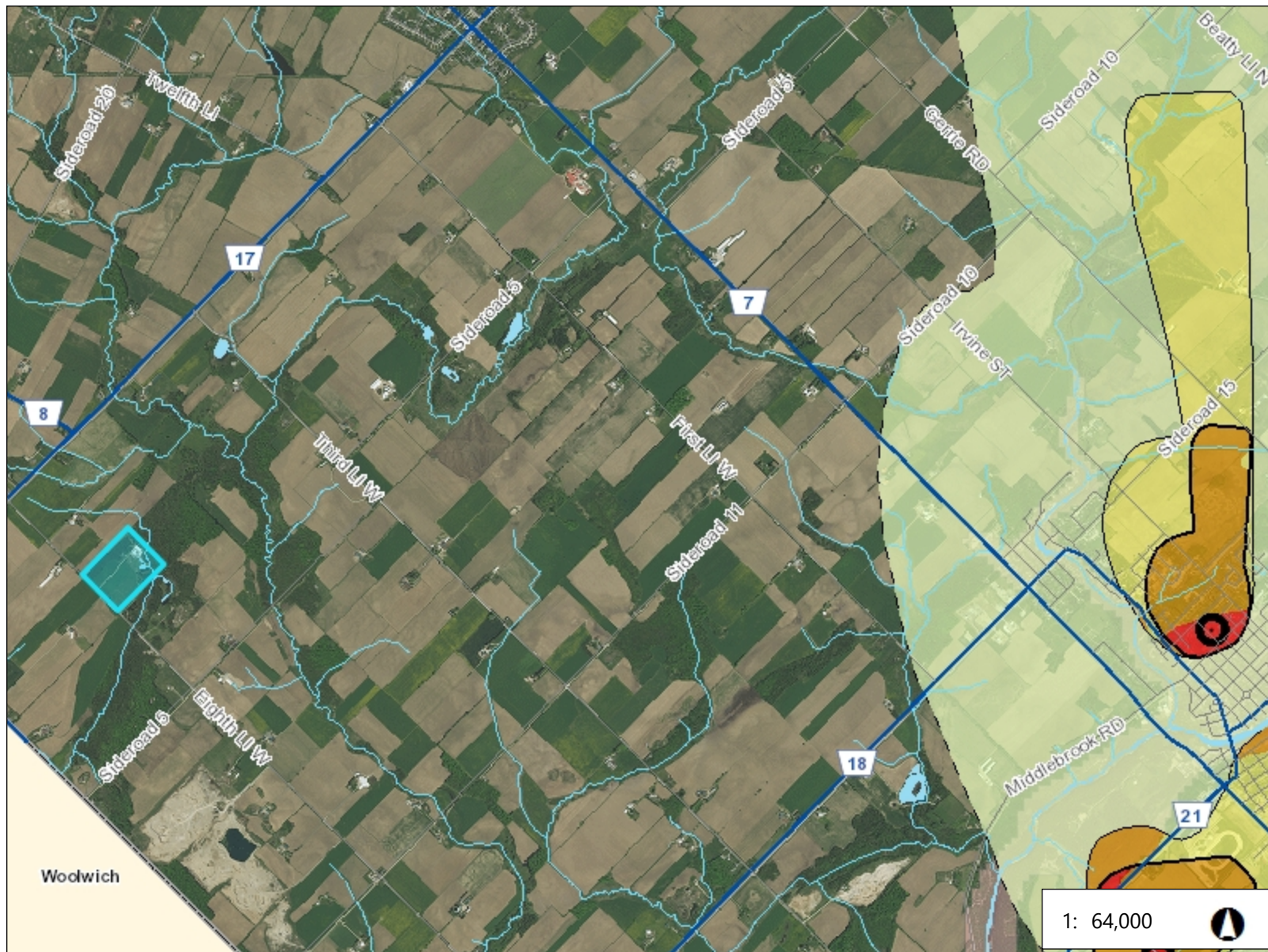
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Attachment 1 – Figure 1: Water Quality map  
Attachment 2 – Figure 2: Water Quantity map





Figure1: Water Quality map



**Legend**

- Roads - Small Scale
  - Local Road
  - County Road
  - Highway
- Waterbodies
- Watercourses
- Ontario - Municipalities
- Well Locations
- Wellhead Protection Area Bou
  - A
  - B
  - C
  - D
- Vulnerability Score
  - 10
  - 8
  - 2, 4, 6 (A, B or C)
  - 2, 4, 6 (D)
- HVA
- RoadsLookup

3.3 0 1.63 3.3 Kilometers

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Notes



