Nestlé Waters Canada | April 2017

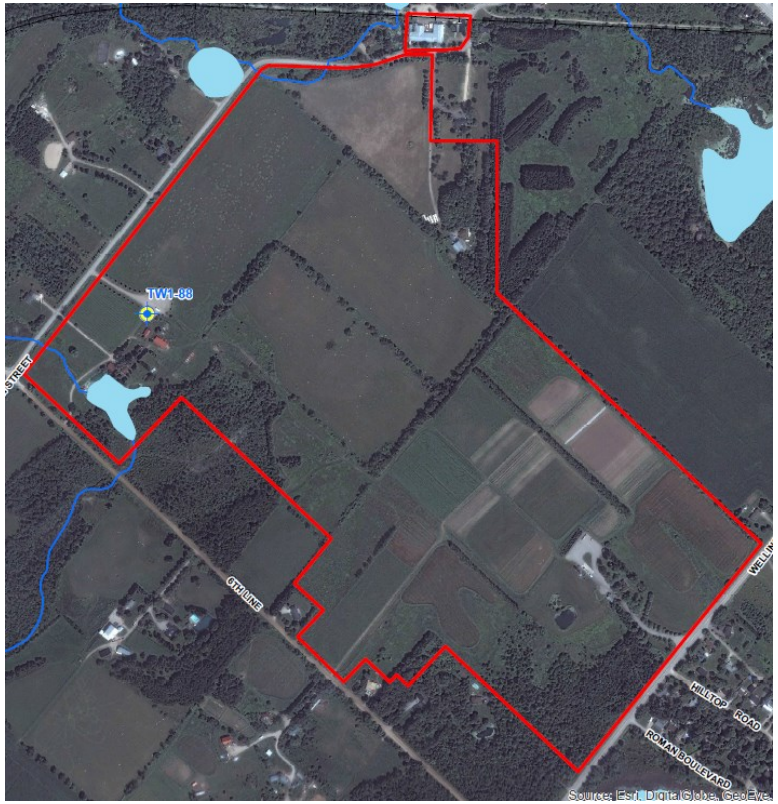
Erin Technical Update 2016

Overview

- Nestlé Waters Canada has been a proud community partner, environmental steward, and employer in Wellington County for the last 16 years.
- Water supply sustainability is as critical to Nestlé as it is to the community.
- Community engagement is a priority for Nestlé Waters Canada.
- Nestlé has two permits to take water; one for Aberfoyle and one for Erin.
- Nestlé conducts extensive monitoring at both sites.
- Nestlé shares the data with the MOECC, local municipalities, technical stakeholders, and posts it publically online on the website (http://www.nestle-waters.ca/en/water-sources-n-quality).

Erin History

- TW1-88 is used to supply water for bottling water.
- Water is pumped to a silo and then transported to the Aberfoyle plant for bottling.
- TW1-88 was constructed in 1988.



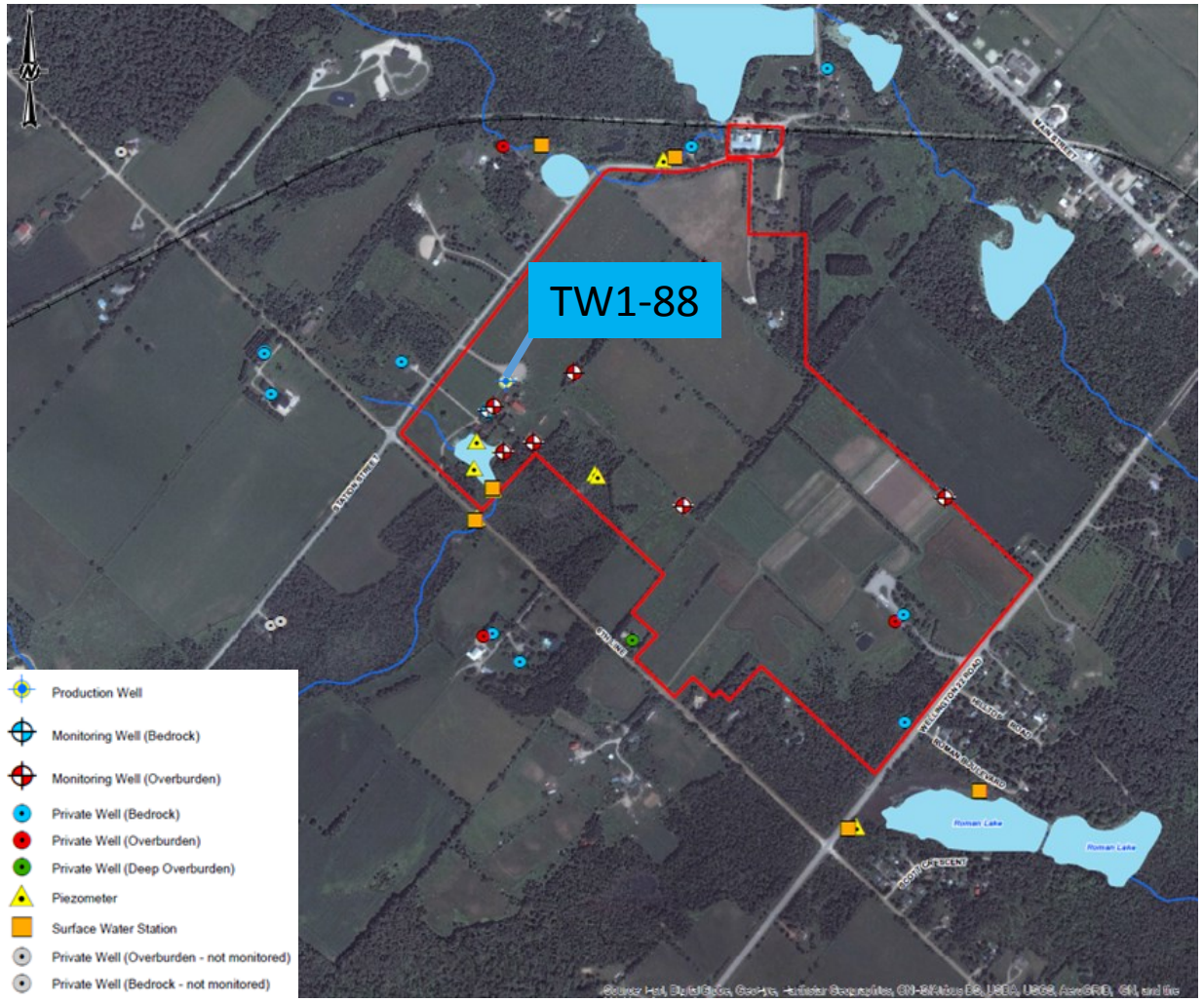
Environmental Monitoring Programs

- Science and data drive the decision making.
  - Managing risks to the groundwater supply is not only the right thing to do for the environment and community, but also essential to Nestlé's business.
- The rigorous testing and monitoring programs conducted by hydrogeologists, ecologists, biologists, and third-party technical reviewers ensures the quantity and quality of the source:
  - Pumping tests to evaluate aquifer properties and predict effects of the water withdrawal.
  - Stream temperature monitoring to assess possible effects on the ecology.
  - Stream flow monitoring to understand how groundwater interacts with streams.
  - Water level monitoring at piezometers and wells to assess natural and pumping related variations in the water levels.
  - Downhole geophysical logging to understand bedrock features.
  - Water quality sampling to monitor for changes to natural chemistry and potential threats to water purity.

Biological Monitoring Programs

- Biological monitoring has been conducted at Erin since 2008 to gauge the health of the environment.
- Objectives were to establish baseline conditions and document long-term changes to the biological communities present.
- Biological monitoring includes:
  - Aquatic habitat assessments and trout spawning surveys
  - Stream temperatures in creeks
  - Vegetation and wildlife monitoring
- Monitoring frequencies vary for different biota based on likelihood of detection of changes to species populations and community structure.
  - For example, trout spawning surveys are completed annually, while vegetation monitoring is conducted every 2 years. Wildlife is monitored every two to three years.

Erin Environmental Monitoring Program

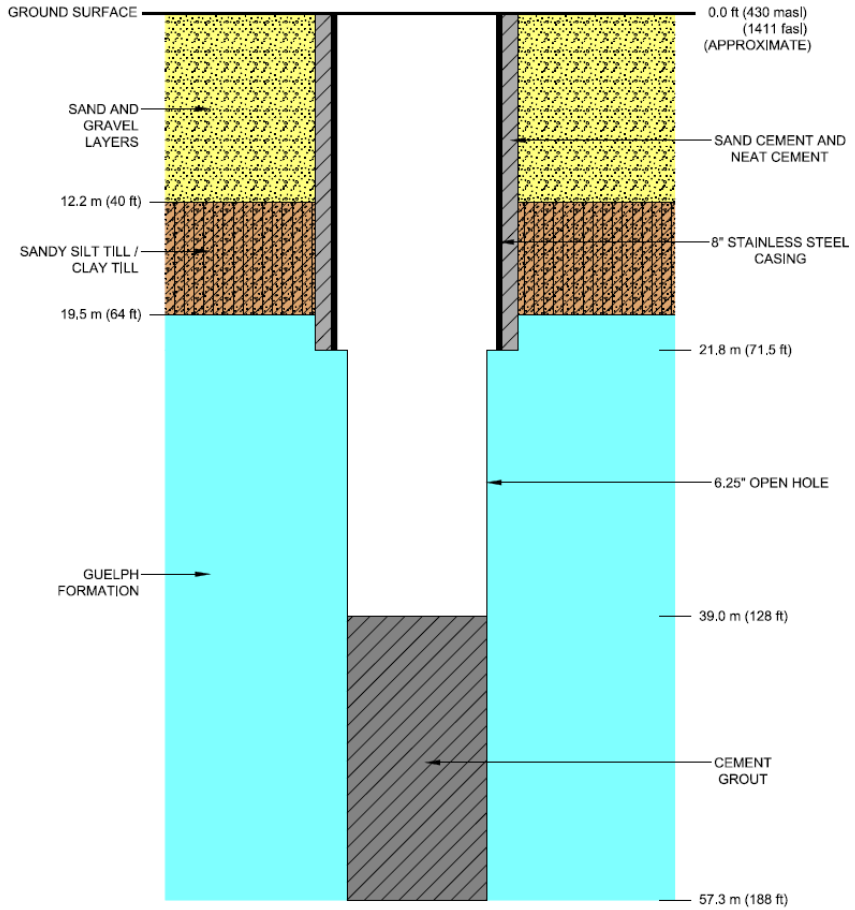


The Erin groundwater and surface water monitoring program consists of:

- Monitoring at 50 points within 1.3 km of Erin Well TW1-88 each month.
- Monitored features include streams, wetlands, the aquifers, and private residential wells.

Erin Supply Well (TW1-88)

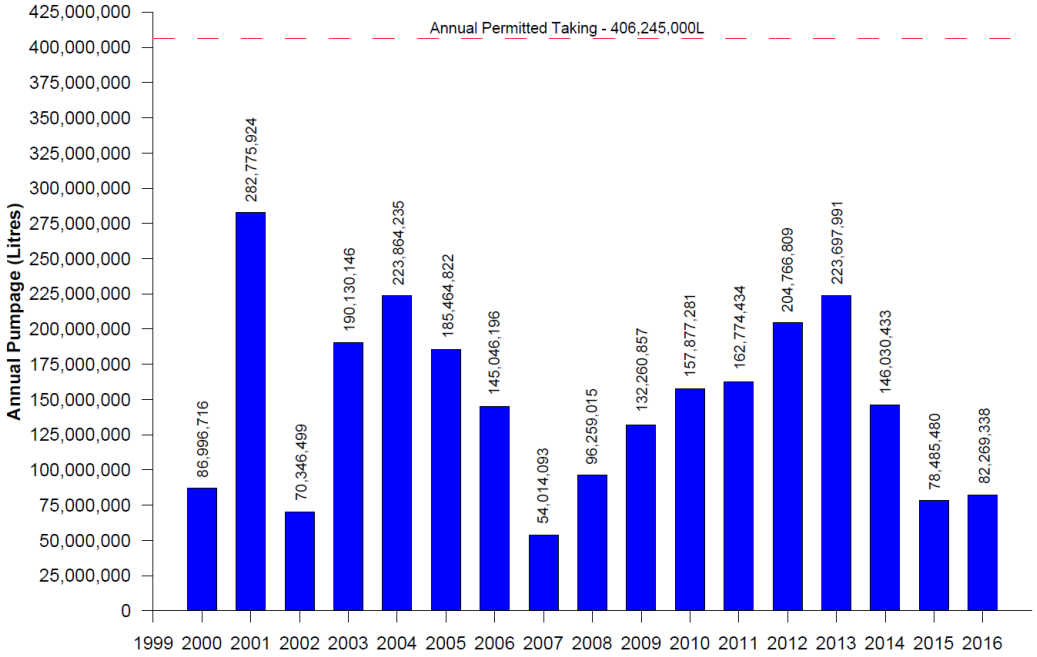
- TW1-88 pumps water from the Guelph Aquifer.
- The overburden aquitard limits the effects of pumping on overlying units.
- TW1-88 is completed to a depth of 39.0 m below ground surface.
- A steel casing, 21.8 metres long, seals off water in overlying aquifers from entering the well.
- Water is pumped only from bedrock fractures between 21.8 and 39.0 m below ground.
- The well is situated within a secure well house.



Conceptual illustration of TW1-88 Boreholl

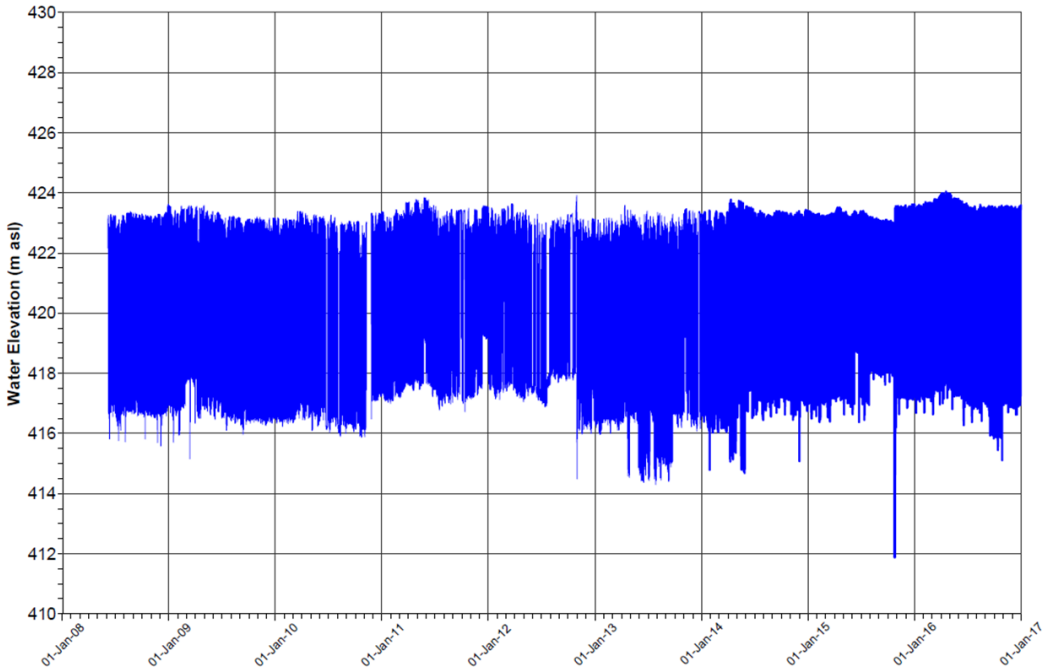
TW1-88 Water Takings

TW1-88 Annual Water Takings



Water takings change with consumer demand but remain within allowable limits.

TW1-88 Hydrograph



Water levels inside production well TW1-88 are monitored in real-time. The withdrawal rate from TW1-88 determines the water level in TW1-88. Withdrawal rates and water levels change daily, seasonally and annually.

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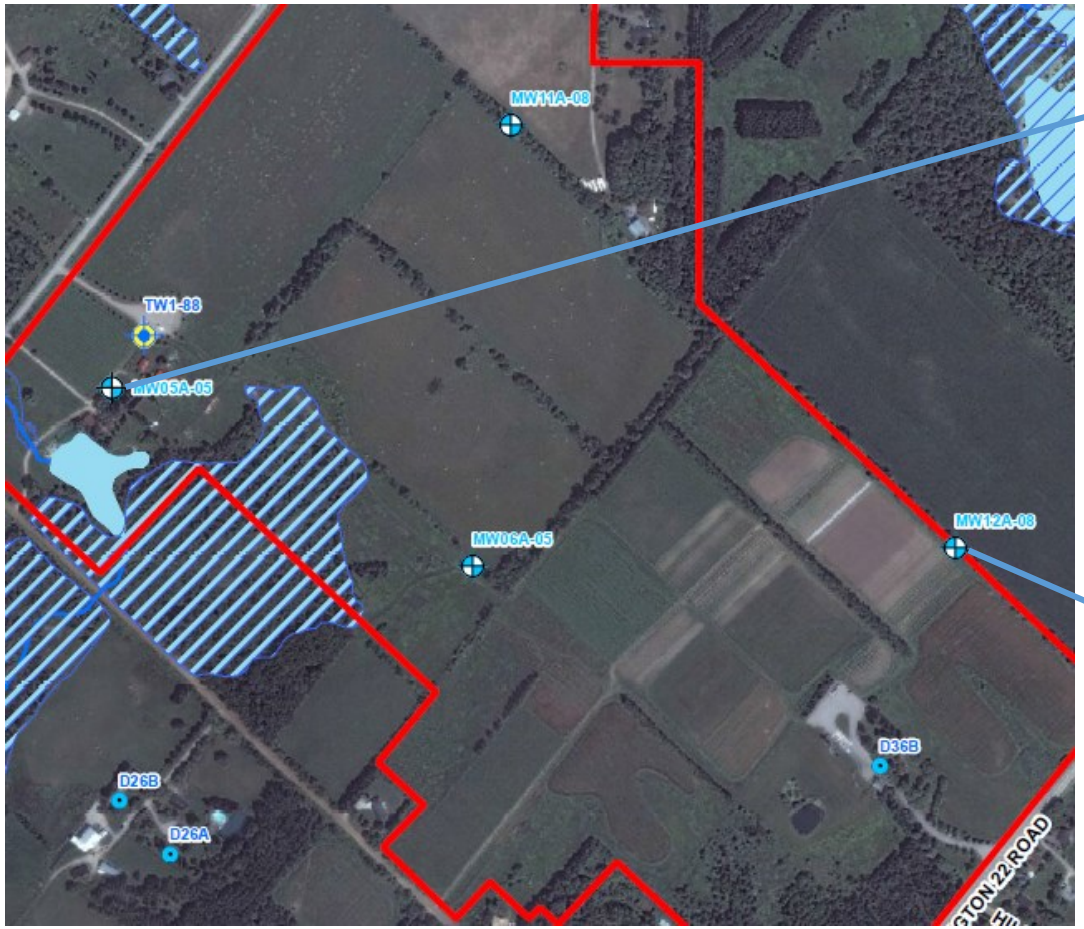
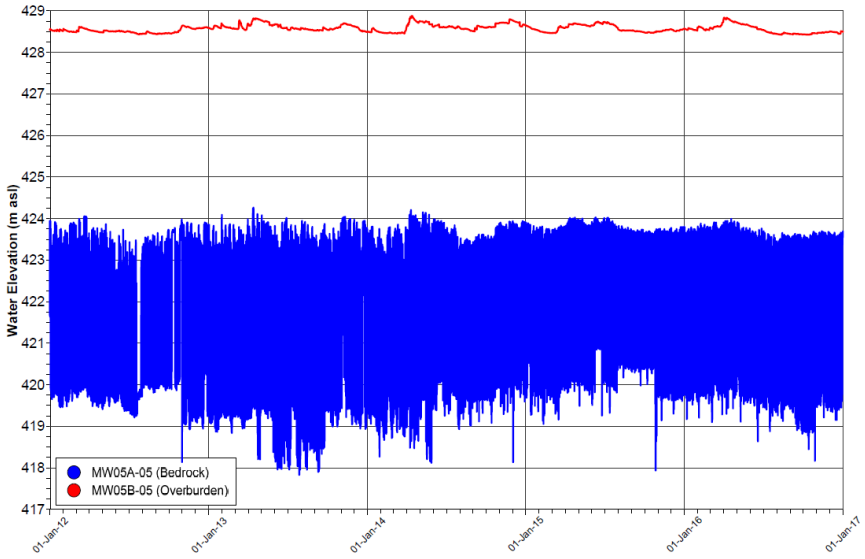
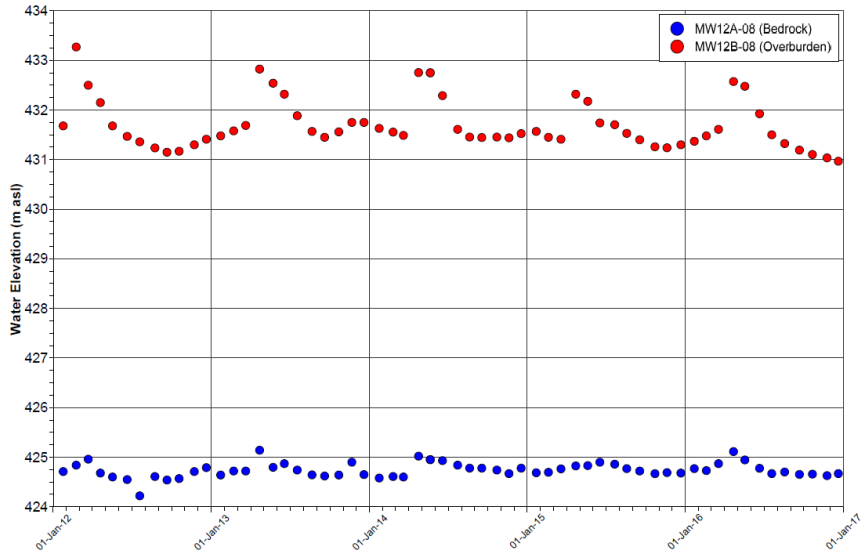
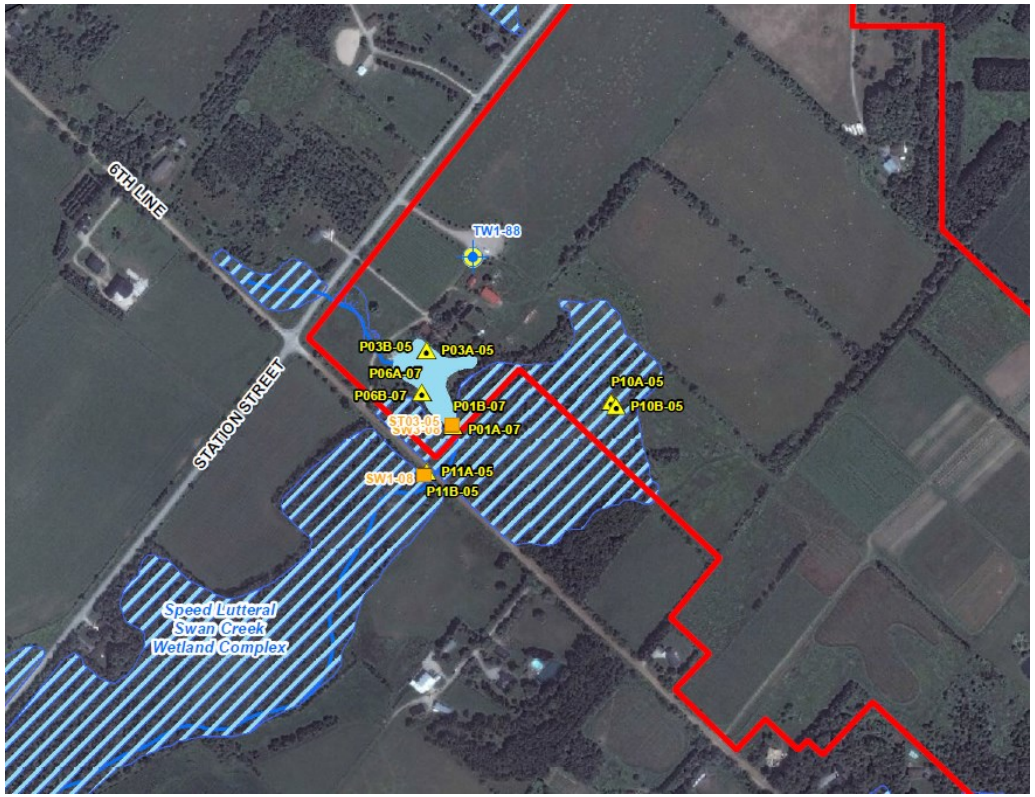
Groundwater Monitoring

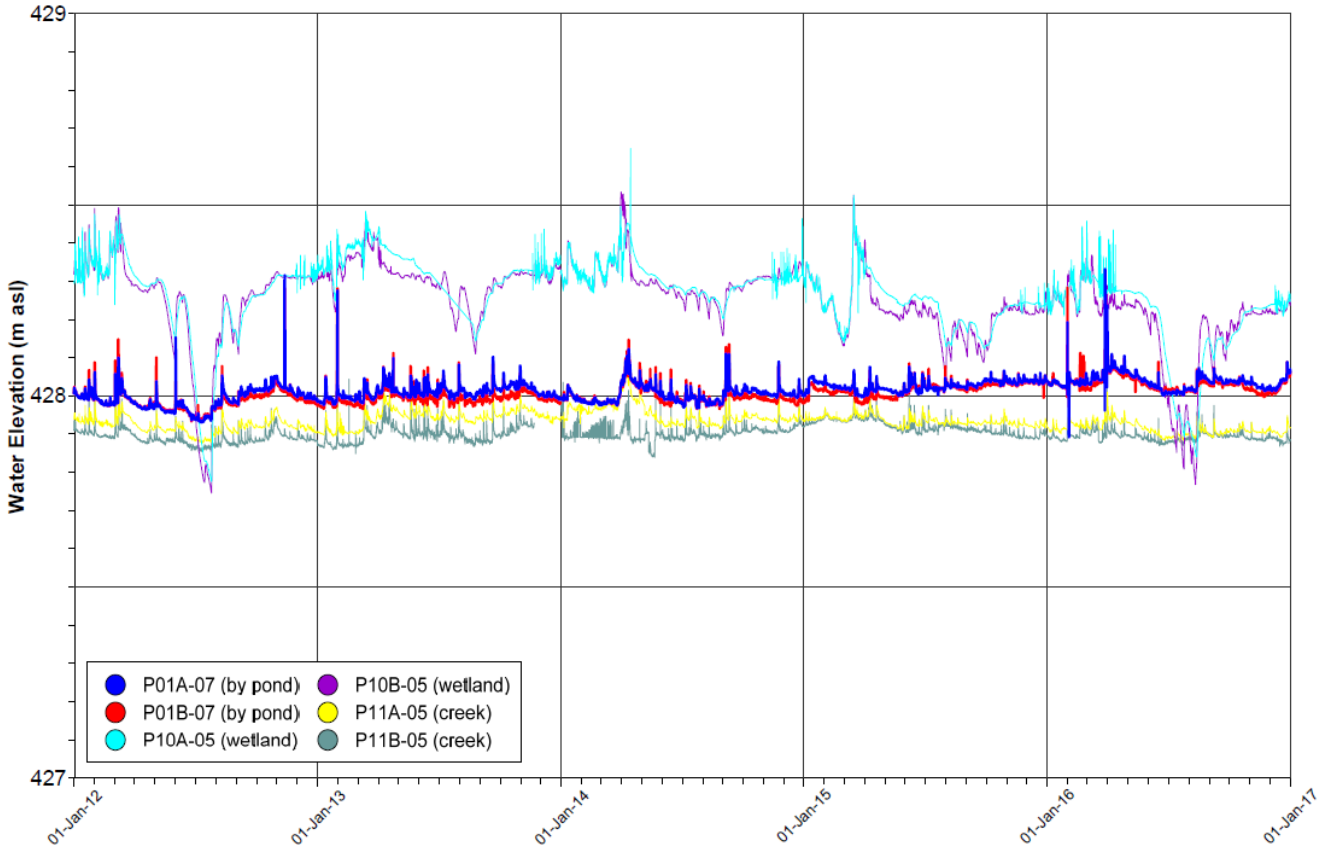






Surface Water Monitoring at Mini-Piezometers





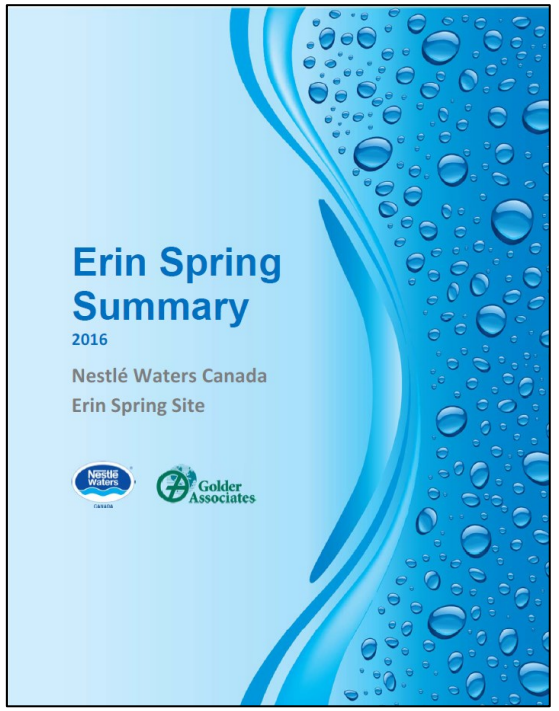
Biological Monitoring at Erin

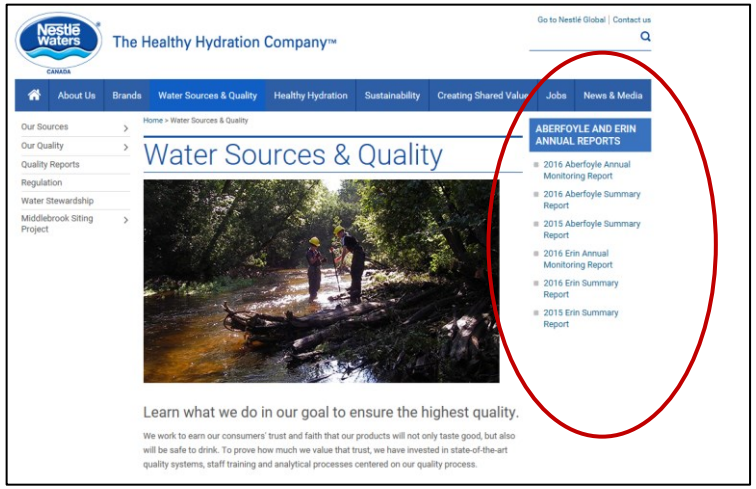
- The water temperature of the creek is suitable for brook trout, which are present in the creek.
- The Erin property is predominantly agricultural with ecological communities including wetland, thicket, and meadow types.
- The ecological communities are in good to excellent condition and support high levels of biodiversity.
- The communities have remained relatively stable from year to year.




Summary

- The trend of water level variation within the Guelph Aquifer is stable and the groundwater takings from TW1-88 have not caused a long-term decline in the aquifer water level.
- Water levels in the overburden are influenced by seasonal factors and not by pumping at TW1-88. The bedrock and overburden aquifers are not actively hydraulically connected at the current rate of taking.
- Pumping at TW1-88 does not influence the water levels in the surface water features.





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Concluding Remarks

- Nestlé Waters Canada is committed to the rigorous monitoring program and long-term sustainability.
- Nestlé Waters Canada is committed to community engagement and Creating shared value.
- Information is shared broadly with our community stakeholders including through:
  - Community Open Houses
  - Weekly Community Office Hours
  - Stakeholder meetings at the community, municipal, and provincial level to provide updates and new information
  - Consultation with First Nations
- The monitoring data from over 16 years of operation in Erin show that there are no negative impacts to the long-term sustainability of the aquifer or ecosystem.

Additional Information

For additional information on Nestlé Waters Canada in Aberfoyle and Erin, please contact:

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