Aberfoyle Summary

Blue Triton Brands Aberfoyle Site

Aberfoyle Overview

Blue Triton Brands (formerly Nestlé Waters Canada) has been a proud community partner, environmental steward, and employer in Wellington County for over 20 years. Water supply sustainability is as critical to Blue Triton as it is to the community.

Blue Triton bottles water at the Aberfoyle facility in Puslinch, near the City of Guelph, in Southern Ontario. Pumping for commercial purposes from an on-site well, referred to as TW3-80, began in 2000 (see Figure 1 for the well location). The water taking is governed by a Permit to Take Water (PTTW) issued by the Ontario Ministry of the Environment, Conservation and Parks (MECP), which allows Blue Triton to withdraw up to 2,500 L/min for a total of 3,600,000 L/d.



Figure 1. Blue Tritons Aberfoyle Property in Puslinch

Blue Triton (formerly Nestlé) has conducted extensive testing and studies over the years to ensure that their operations do not diminish the availability of water for other users or the environment. Studies include:

- Five pumping tests to evaluate aquifer properties and predict effects of water withdrawals;
- Geophysical logging of wells to understand the bedrock geology;
- Near-continuous measurement of groundwater and surface water levels;
- Stream flow measurements in Aberfoyle Creek;
- Water quality sampling in the overburden and bedrock aquifers; and
- Ecological surveys of the wetlands and creeks.

Permit conditions require Blue Triton to monitor the natural and pumping-related variations in groundwater and surface water levels. Blue Triton additionally evaluates wetland vegetation, species diversity, stream flow, and stream temperature to ensure that the groundwater withdrawal does not affect the habitat of water-dependent ecology.

Blue Triton is dedicated to managing the water source for long-term sustainability because their business depends on it and because it is the right thing to do. There have been no adverse impacts on the aquifer or ecosystems resulting from over 20 years of operations at the Aberfoyle site.

Supply Well TW3-80

An aquifer is a highly permeable rock or sand formation that stores and transmits significant quantities of water. An aquitard is an impermeable rock or clay formation that impedes the movement of groundwater.

In the Aberfoyle area, groundwater for water supplies is typically derived from two bedrock aquifers, separated by an aquitard. The upper bedrock aquifer (Guelph Formation and Reformatory Quarry Member of the Eramosa Formation) consists of the shallowest bedrock and supplies water to numerous residences. Blue Triton's well TW3-80 withdraws water from a deeper aquifer, the lower bedrock aquifer (Goat Island and Gasport Formations). A steel casing lines most of well TW3-80, such that water only enters the well from the lower bedrock aquifer, between 28.4 and 31.1 metres below ground. The upper bedrock and lower bedrock aquifers are separated by the intermediate bedrock aquitard (Vinemount Member of the Eramosa Formation), which resists the flow of water between the two aquifers.

TW3-80 Permit

Blue Triton is permitted to take water from TW3-80 at a rate of up to 2,500 L/min, or a maximum of 3,600,000 L/day. Blue Triton does not withdraw this full amount of water since water is only withdrawn when it is needed for bottling and plant operations. The current permit expires on November 15, 2026.

Site Monitoring

Independent scientists are contracted by Blue Triton to monitor the groundwater system, surface water features, wetlands, and natural environment at the Aberfoyle facility. Water extraction rates from TW3-80 are recorded by Blue Triton and reported to the MECP. Monitoring efforts ensure that Blue Triton's operations do not adversely affect the groundwater, surface water and natural environments.

The groundwater and surface water monitoring program consists of monitoring at 73 points within 2 km of TW3-80 as follows:

• TW3-80 (production well);

- 18 monitoring well nests of between one and five wells each (a total of 43 wells) that are completed at various levels in deep bedrock, shallow bedrock and the overburden;
- 5 surface water stations to measure stream levels;
- 8 mini-piezometer nests (a total of 16 piezometers) to measure shallow groundwater levels;
- 6 temperature stations to measure changes in stream temperature; and
- 2 private wells.

The ecological monitoring consists of:

- Fish and fish habitat monitoring;
- Water temperature monitoring;
- Vegetation monitoring; and
- Wildlife monitoring.

Summary

Blue Triton takes its environmental stewardship responsibilities seriously and is committed to sustainable management of natural resources. Blue Triton's Aberfoyle water withdrawal activity has not resulted in adverse impacts to groundwater, surface water, wetlands, or other natural resources.