

## TECHNICAL MEMORANDUM

**DATE** October 19, 2021

**Project No.** 20449101 (1000)

**TO** Andreeanne Simard, Ph.D., Natural Resource Manager  
Blue Triton Brands

**CC**

**FROM** Greg Padusenko, P.Eng., P.Geo. and John  
Piersol, P.Geo.

**EMAIL** [gpadusenko@golder.com](mailto:gpadusenko@golder.com)

### LOW WATER RESPONSE PLAN FOR ABERFOYLE TW3-80

Blue Triton Brands (Blue Triton) obtains water from a well referred to as TW3-80 for the purpose of bottling water. TW3-80 pumps water from the lower bedrock aquifer (with an overlying aquitard). Typically, in the summer, there are occasionally times with periods of hot weather and minimal precipitation. During these times Ontario Low Water Conditions can be declared as a Level 1, Level 2 or Level 3 condition which require the water users to voluntarily limit their water takings by 10%, 20% or further restrictions, respectively. The impacts due to low water conditions are generally observed as lower water levels in surface water features or shallow unconfined aquifers over the short term. Over the short term, water takings from deep aquifer systems typically do not impact the surface water levels that are influenced by the low water conditions.

Blue Triton commits to work collaboratively with the Ministry of the Environment, Conservation and Parks (MECP) and the Grand River Conservation Authority (GRCA) to develop an action plan to respond to the issuing of a low water advisory by the GRCA. This memorandum provides a low water response plan for the deep water taking at TW3-80 in the event that a low water response condition is implemented. This plan is a science-based approach.

Blue Triton has tracked water levels continuously for several years in an extensive monitoring network at its facility. It is proposed that when a low water advisory is issued, selected water level data will be reviewed to assess whether there are declining trends in water levels below historical norms. If the results of the investigation reveal that the water levels are declining at a rate greater than the historical trends previously noted at the site (and expected with environmental conditions), Blue Triton will commit to investigating the cause of the observed trends and report said findings in proper timeframe to MECP.

Over the years there have been both dry and wet years through which water takings occurred. The extensive amount of data collected over this time has helped Blue Triton to manage the source for long term sustainability. The monitoring data helps to show how the impacts of short-term dryer periods are different on shallow groundwater systems compared to deep groundwater systems. Similarly, the impacts from pumping in the deeper aquifer system are also different between the shallow and deep groundwater zones. Blue Triton reviews this data to ensure that the water taking from TW3-80 does not negatively impact environmental features and nearby water users.

In order to implement a low water response monitoring plan, Blue Triton commits to the following. Monitoring well MW2-07 is the closest monitoring well to TW3-80 and consists of five monitoring wells (one in the lower bedrock

aquifer, one in the intermediate bedrock aquifer, one in the upper bedrock aquifer and two in the overburden). When a low water condition is declared, manual water level monitoring and transducer downloads should increase from quarterly to monthly at this key monitoring location during the low water advisory. The data should be reviewed following the monitoring and compared to historical water levels. The water taking has been sustainable over the years with no impacts to surrounding features. As such, a water level decline that exceeds these historical levels will trigger further investigation, which will include a comparison of flow rates between SW1 (upstream end of property) and SW2 (downstream end of property). The investigation will also include a review of any new or increased water takings in the area that may be causing part of the additional water level decline. A report on the findings will be submitted to the MECP and Blue Triton will discuss actions with the MECP to address the impacts.

This Low Water Response Plan should be submitted to the MECP for approval and implemented upon acceptance.

Respectfully,

**Golder Associates Ltd.**

GRP/JAP/

Distribution: Blue Triton Brands  
Ministry of the Environment, Conservation and Parks

[https://golderassociates.sharepoint.com/sites/139500/project files/6 deliverables/low water condition for pttw/aberfoyle/20449101 tm aberfoyle low water 19oct2021.docx](https://golderassociates.sharepoint.com/sites/139500/project%20files/6%20deliverables/low%20water%20condition%20for%20pttw/aberfoyle/20449101%20tm%20aberfoyle%20low%20water%2019oct2021.docx)