



# **Southwest Guelph Water Supply Class EA**

Quarterly Progress Update, December 2023

The City of Guelph launched the Southwest Guelph Water Supply Class Environmental Assessment in September 2021. The Environmental Assessment includes a data gathering process called an Operational Testing Program, which is a six-stage, multi-year testing program that will determine the quantity of groundwater that can be safely and sustainably pumped from existing and new City production wells. The Operational Testing Program will evaluate two key objectives: (1) how will the Dolime Quarry pond be managed after the quarry has closed, to maintain and protect the high quality groundwater in the surrounding aquifer, and (2) how can the City sustainably pump a portion of the additional water required to supply the community in the future.

## **Operational Testing Program Stage 3**

Operational Testing Program Stage 3 took place between March and October 2023 and provided additional information about how the aquifer around the Dolime Quarry pond responds to variable pumping rates within the existing City production well system while keeping the rate constant at the Rocco Well. The Stage 3 Plan was based on data collected during Stages 1 and 2 at a series of groundwater and surface water monitoring locations. The City also continued to collaborate with the University of Guelph's Morwick G360 Groundwater Research Institute through a drilling investigation at two additional groundwater monitoring locations that will benefit the Operational Testing Program and progress the Institute's ongoing groundwater research in the City of Guelph ([MG30 Webpage](#)).

During the Stage 3 testing, the City continued collaboration with River Valley Developments, the quarry owner, to control the quarry pond conditions. To simulate future conditions following quarry closure, the pond water level was maintained within a target elevation range, determined by the City. Data, including pumping rates and water levels, were collected at the municipal well locations and at the same groundwater and surface water monitoring locations where baseline data was gathered. Some of the data was monitored in real-time, using telemetry technology implemented between Stage 1 and 2 of the testing.

## **Next Steps**

Stage 4 of the Operational Testing Program started in early December 2023 and is scheduled to finish in December 2024. This stage will test seasonal variation and operational fluctuation related to municipal pumping while monitoring the groundwater and surface water system.

