

THE REGIONAL MUNICIPALITY OF WATERLOO ROSEVILLE WATER PUMPING STATION ASSESSMENT

Overview

The Region of Waterloo, Water Services Division, hired C3 Water Inc. (C3W) to facilitate a full multi-disciplined assessment of the existing Roseville Drinking Water Pumping Station. The Roseville Drinking Water Pumping Station is located at 40 Roseview Crescent in Roseville, North Dumfries Township. The existing drinking water system consist of two (2) wells, a treatment plant building for chlorination equipment and facilities, a filtration treatment system for iron and manganese, pressure tanks for pressure balancing in the distribution system, high lift pumps, process piping and valves, instrumentation and control system, two underground storage reservoirs and an overflow tank, a backwash holding tank, and approximately 2.04 kilometers of distribution watermains.

C3 Water Project Objectives and deliverables include:

1. Project initiation meeting and background investigations.
2. Full site investigation, including a session with mechanical, electrical, SCADA and instrumentation and process and regulatory compliance maintenance and operation staff. The following items will be assessed on-site as per the provided terms:
 - o Assessment of pump replacements, including confirmation that the proposed pumps can operate in the existing reservoir,
 - o Assessment of the existing level of treatment in the existing reservoir and if it can meet new regulations,
 - o Assessment of existing filters,
 - o Assessment of existing pressure tanks,
 - o Assessment of mechanical piping including an inspection of coatings and pressure vessels compliant with the requirements of the National Associate of Corrosion Engineers (NACE).
 - o Assess need for Hydro Services upgrade,
 - o Assess need for Instrumentation and Controls Upgrade,
 - o Assess need for ATS for on-site generator.
3. Reservoir/Clearwell, Overflow and Backwash Holding Tank structural assessments.
4. Project Meetings.
5. Draft report including site assessment results and a proposed upgrade plan for those items which the Region has already identified as desirable in the terms of reference provided.
6. Final Documentation. The final report will be delivered along with conceptual drawings, equipment data sheets, recommended upgrades, pump type selection, etc., required to detail the facility assessment.

Delivering Value Through the Water Cycle: Source to Tap, Tap to Source™

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