

Waste Water Collection Process Control System Upgrades

CLIENT

City of Toronto

LOCATION

Toronto, Ontario

Project Description

The Waste Water Collection (WWC) system provides sewage and storm water conveyance for the City of Toronto and operates 24/7/365. The existing sewage/storm water stations required a SCADA system upgrade, as the existing infrastructure was no longer supported to communicate remotely with the Toronto network. The project consists of upgrades to the process control system at the pump stations, blower stations, and retention tanks within the WWC system. These modifications implement new Programmable Automation Controllers (PACs), Operator Interface Terminals (OITs), new instruments, new access control panels, access control instrumentation, and new WAN and LAN equipment at various locations.

B&M Scope of Work

The Black & McDonald scope of work includes the supply of materials, labour, equipment, and permits necessary for the upgrade of process control systems at 83 pumping stations across Toronto including:

- Installations of new PACs and OITs, power monitoring equipment, and communication equipment at all stations and connect to Toronto network
- Upgrades to various instruments (pressure/flow)
- Provision of new software for all pumping stations
- And testing/commissioning at all of the stations

New software was developed, tested and implemented by B&M in collaboration with the Project Consultant for all PACs and OITs at the remote facilities and iFIX systems at the WWC system control centre.

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Benefits to Client or Problem(s) Solved

All of the Toronto stations are 24-hour operations and require uninterrupted pumping and collections during all installs. Black & McDonald is providing bypass pumping for critical equipment ensuring no capacity is lost at any station. When Toronto needed professional expertise that is committed to a job flawlessly completed, it called Black & McDonald.

Black & McDonald is managing the complex sequence of work including:

- Coordinating work with city staff
- Access to stations
- Shutdowns
- Notifying public
- Managing multiple crews throughout the city
- Software development/integration