

## Lucas Point Wastewater Treatment Plant (Cobourg Plant #2)

Summa's extensive experience in construction and upgrades of **process automation systems** in smaller wastewater facilities, in addition to good management in the areas of programming, sequencing and transitions, and commissioning allowed for trouble free continuous operation of the plant during the transition and the successful completion of the project.

### *Background*

The Town of Cobourg Lucas Point facility was built in 1984 and had a capacity upgrade in 1992.

Most of the then existing Control System was 20+ years old and based mostly on obsolete Allen Bradley PLC-5 PLCs communicating over Data Highway+. The SCADA software was InTouch Wonderware. Control panels exist in the main control room and four [4] process areas. There was no plant-wide network installed in this facility.

The Town undertook a Control System upgrade with work commencing in 2014

The goals of the upgrade were to bring the plant up to current technology, functionality and performance standards to improve the efficiency and reliability of the Control System. During the upgrade disruptions in any given process area must be kept to a minimum.

Summa took on overall responsibility for this project as General Contractor. The Town did not have current or reliable electrical drawings or process narrative for this facility. Summa had to reverse engineer the control system to be able to begin the upgrade process.

### *Scope of Work – Control System/Network*

Summa was responsible for supplying, retrofitting, and commissioning new PLC and remote I/O hardware in the existing control panels, along with the installation of a fibre-optic network backbone to facilitate plant-wide communication. Programming responsibilities included all PLC and SCADA programming, testing, commissioning, along with the installation and configuration of a new Plant Historian and Remote Alarm Notification system.

PLC: Rockwell CompactLogix (central) and FLEX I/O (process areas)

SCADA: GE Digital iFIX

OIT: Advantech IPC w/ Embedded iFIX

Network: New Fibre Optic backbone with new copper as required

