



Region of Waterloo

## Career Opportunity

The Region of Waterloo is currently recruiting for a:  
**SCADA Specialist**

Department: Engineering and Environmental Services

Division: Water and Wastewater Services

Hours of Work: 35

Location: Kitchener Wastewater Treatment Plant – 368 Mill Park Drive, Kitchener

### Our Story:

Committed to fostering opportunities for current and future generations, the Region of Waterloo is an inclusive, thriving, and sustainable region of connected rural and urban communities with global reach. Our mission is to serve, engage and inspire, by delivering quality services to a diverse population of 630,000+, while creating a healthy, collaborative environment of learning, respect, and innovation.

This is a place where employees are valued and recognized for their talents and contributions to our success. Our employees take pride in making a difference in people's lives through the work that we do. We are looking for people like you to help make it happen.

### Our Team:

The SCADA team at the Region of Waterloo, Water Services Division is undertaking several different exciting initiatives, including HMI upgrades, cybersecurity initiatives, and a variety of capital projects. This position will be supporting the Wastewater team. We are looking for a full-time SCADA Specialist who is passionate about creative problem-solving and developing innovative solutions. Come join our dynamic team where you matter and where your ideas and contributions make a difference.

### The Opportunity:

Reporting to the **Senior Engineer (Water and Wastewater Services)**, this exciting opportunity would be well suited for a passionate person who thrives in an environment of innovation and change. In this role you will get the opportunity to support Water and Wastewater Services SCADA systems. You will work collaboratively with the Ontario Clean Water Agency (OCWA) when supporting the Wastewater SCADA system. Oversee daily operations, maintenance, and upgrades of local SCADA computers, remote processing units, communications frontend processor and system, file server, and SCADA network. Architect, design, implement, upgrade, and enhance new and existing servers, storage, backup, wired and wireless infrastructure for SCADA. Work with other divisional staff and staff from Design & Construction to identify, recommend, and implement technology solutions that support project goals for SCADA control.

## **Apply your Knowledge, Skills & Abilities:**

- You get to supervise a SCADA and Information System Analyst (Water). Provides system training and support to divisional operations and maintenance staff as needed. Administers contracts with contractors as required. Supervises up to 30 staff as part of the on-call supervisor rotation.
- As an expert you will analyze, install, maintain, and administer operating software, hardware, and communications malfunctions and takes corrective action. Review problems with supervisors, instrument technicians, Process/SCADA operators, consultants, contractors, and vendors, as needed.
- You will determine hardware and software supplies and equipment requirements, and performs daily checks.
- You will respond to operational and communication inquiries, complaints, and emergency calls (24/7). Direct corrective action, notifying staff, local municipalities, contractors, regulatory agencies, and other organizations. Develop and implement operational procedures and programs (with input from others) to meet drinking water and other legislative requirements. Review operational standards, and recommends and implements changes. Create technical specifications and determines system requirements based on needs. Build and test for performance, stability, and quality. Modify system design to take advantage of equipment and resources.
- You will develop, implement, and maintain software and hardware to transfer SCADA historical data into information systems. Verify and confirm data for proper collection and accuracy of data.
- You get to design and upgrade SCADA system specifications, graphic displays, historical data, real-time data, and control databases, and ensures compliance with developed standards. Create and maintain virtual machine interfaces.
- You will provide expertise for operational and capital projects and consultants on process narratives, I/O lists, process and instrumentation drawings, controller logic, and descriptions of water and wastewater process operations into executable programs on the system using real-time software. Provide technical support to operations and capital projects. Coordinate activities with instrumentation and control technicians.
- You will maintain and configure system computers, servers, local and data network, and ensures system functionality, accuracy, security, and integrity. Maintain back-up computer systems.
- You get to create, maintain, and update SCADA real-time database points. Map points to field devices on RPU's with instrumentation and control staff and consultants.
- You will document/maintain system specifications.
- As an expert, you will review and verify network diagrams, install procedures, failover and disaster recovery procedures, design specifications, implementation checklists, standards, and operational support processes to ensure operational effectiveness and compliance of standards.
- You get to create operating strategy, input/output wiring and programming listings, process instruments, single-line drawings, processes narratives, process

and instrumentation, controller logic, and conversion of descriptions of water and wastewater process operations into executable programs on the system using real-time software. Reviews SCADA control philosophy with management and Design & Construction engineers. Recommend present and future system expansion and upgrade requirements.

- You will develop and implement remote access to networked systems. Determine operating system, field equipment, database location, and links to mobile computers. Develop display formats for information. Recommend acquisition of hardware. Train staff and maintains hardware, and software.
- You will ensure safety of staff, contractors, and the public using water and wastewater facilities. Check for potential hazards and initiates corrective measures. Monitor controls for water, wastewater, and hazardous materials.
- You will organize and administer special programs as required. Conduct site tours, with other staff.
- You get to participate in asset management programs by providing systems data and requirements. Participate in the development, implementation, continuous improvement, and conformance of the drinking water quality management system (DWQMS).
- You will maintain computer software/hardware, networks, equipment, and licensing. Has signing authority and a P-card. Recommend hardware purchases and monitors budget for same. Verify monthly water consumption reports to collect revenues from area municipalities.
- You get to liaise and coordinate with IT regarding networking activities to support disaster recovery and business continuity planning. Determine database back-up requirements and recovery procedures; maintain and monitor standby databases and server backups. Work with other staff to meet recovery needs and ensure alignment for return-to-operation strategy. Maintain system availability, including design and maintenance of failover/clustering capabilities.
- You will obtain/relay information from suppliers, consultants, and contractors. Contacts hardware and software suppliers. Contact telecommunications companies regarding communication systems maintenance. Respond to complaints and data requests from local municipalities and customers.
- Backs up the supervisor.
- Performs related duties as required.

### **Apply Your Experience at the Region of Waterloo:**

- Knowledge and skills are normally acquired through a community college diploma in a related field (e.g., computer science), plus related experience in system design and analysis relative to a water and/or wastewater operations environment.
- Knowledge and skill in computer hardware and software applications (e.g., iFix, VMware), computer languages, programming, process control, automation processes, development tools, and data communication systems.
- Must be certified as an Operator in Training (OIT), or attain within 6 months of hire.

- Knowledge of and ability to comply with policies, procedures, collective agreements, related legislation (e.g., Safe Drinking Water Act, Environmental Protection Act, Ontario Water Resources Act, drinking water quality standards, health and safety), and related standards (e.g., Water Works Association, instrument society, national standards, electrical safety).
- Knowledge of relational database concepts, and architecture and database server processes. Ability to create and manage databases in multi-tiered and client/server environments.
- Analytical, organizational, continuous improvement, and technical skills to analyze, program, diagnose, and resolve system hardware and software issues; work independently; deal with real-time process system issues; react to changing situations in the field; and achieve desired outputs.
- Leadership skills to supervise, train, develop, motivate, and support staff.
- Communication and human relations skills to train and support staff using the system; respond to and resolve software and hardware issues; and participate as an effective team member.
- Ability to read and interpret technical manuals, reports, updates, and correspondence. Ability to write reports for management, use computer languages (e.g., SQL, visual basic), process narratives, and technical drawings.
- Computer skills using software such as Microsoft Office, networking and operating systems, regulatory reporting systems, and real-time process control computer applications.
- Must have a valid Class G driver's license (or G2 with 3 years of driving experience) and acceptable driving record to operate a region-owned vehicle. Ability to travel within and outside Waterloo Region.
- Ability to participate in an official standby/on-call rotation to respond to legislated or time sensitive demands beyond regularly scheduled work hours.
- Ability to support and demonstrate the Region's values.

### **Additional Information:**

### **Compensation:**

In addition to offering a competitive compensation package, we have a strong focus on health and wellness, including fitness facilities and family-focused benefits. The salary of this position ranges between \$84,903.00 - \$106,124.40 per annum (Grade 6 on the Management & Management Support wage scale).

We invite internal Region of Waterloo employees to apply by 11:59 p.m. on November 28, 2023.

Consideration will be given to candidates that are not fully qualified when no fully qualified applicants can be identified.

We thank all applicants in advance; however, we will be corresponding only with those selected for an interview.

The Region of Waterloo is an equal opportunity employer committed to an inclusive, barrier-free recruitment and selection process. At the Region, we respect, encourage, and celebrate our diversity. The Region of Waterloo is committed to providing accommodations throughout the recruitment process. If you require an accommodation, please notify us and we will work with you to meet your needs.

Alternate formats of this document are available upon request. Please contact the Service First Contact Centre at phone number 519-575-4400, or TTY number 519-575-4608 to request an alternate format.