

SCADA Specialist

Job Number: 2238

Job Type: Full-Time

Location: 368 Mill Park Dr - Administration Building

Job Category: Other

Number of Positions: 1

Department: SCADA and Operational Technology

Division: Engineering and Environmental Services

Hours of Work: 35 hours. Monday - Friday 8:30 AM - 4:30 PM

Union: Management/Management Support

Grade: Management/Management Support Grade 06

Salary Range: \$91,291.20 - \$114,114.00 annually

Link to Apply: <https://careers.regionofwaterloo.ca/RoW/job/Kitchener-SCADA-Specialist-ON/588634617/>

About Us!

The Region of Waterloo is a thriving, diverse community committed to fostering opportunities for current and future generations. Home to over 674,000 residents and expected to grow to nearly one million by 2051. Guided by our [2023-2027 Strategic Plan](#), “Growing with Care,” we focus on equity, inclusion, and sustainability. Our mission is to provide essential services that enhance the quality of life for all residents, while our core values emphasize caring for people and the land we share. Join us and be part of a team dedicated to making a meaningful difference in our community.

Dish with One Spoon Wampum:

Waterloo Region is part of the Dish with One Spoon wampum, a treaty guiding our commitment to:

- Recognizing our shared humanity and land
- Taking only what we need
- Leaving some for others
- Keeping the dish clean

This agreement underpins our vision, mission, and core values, and reinforces our dedication to meaningful reconciliation and equity.

The Role

Supports Water and Wastewater Services SCADA systems. Works collaboratively with the Ontario Clean Water Agency (OCWA) when supporting the Wastewater SCADA system. Oversees daily operations, maintenance, and upgrades of local SCADA computers, remote processing units, communications frontend processor and system, file server, and SCADA network. Architects,

designs, implements, upgrades, and enhances new and existing servers, storage, backup, wired and wireless infrastructure for SCADA. Works with other divisional staff and staff from Design & Construction to identify, recommend, and implement technology solutions that support project goals for SCADA control.

Duties/Responsibilities

- Supervises 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.
- Analyzes, installs, maintains, and administers operating software, hardware, and communications malfunctions and takes corrective action. Reviews problems with supervisors, instrument technicians, Process/SCADA operators, consultants, contractors, and vendors, as needed.
- Determines hardware and software supplies and equipment requirements, and performs daily checks.
- Responds to operational and communication inquiries, complaints, and emergency calls (24/7). Directs corrective action, notifying staff, local municipalities, contractors, regulatory agencies, and other organizations. Develops and implements operational procedures and programs (with input from others) to meet drinking water and other legislative requirements. Reviews operational standards, and recommends and implements changes. Creates technical specifications and determines system requirements based on needs. Builds and tests for performance, stability, and quality. Modifies system design to take advantage of equipment and resources.
- Develops, implements, and maintains software and hardware to transfer SCADA historical data into information systems. Verifies and confirms data for proper collection and accuracy of data.
- Designs and upgrades SCADA system specifications, graphic displays, historical data, real-time data, and control databases, and ensures compliance with developed standards. Creates and maintains virtual machine interfaces.
- Provides 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. Provides technical support to operations and capital projects. Coordinates activities with instrumentation and control technicians.
- Maintains and configures system computers, servers, local and data network, and ensures system functionality, accuracy, security, and integrity. Maintains back-up computer systems.
- Creates, maintains, and updates SCADA real-time database points. Maps points to field devices on RPUs with instrumentation and control staff and consultants.

- Documents/maintains system specifications.
- Reviews and verifies 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.
- Creates 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. Recommends present and future system expansion and upgrade requirements.
- Develops and implements remote access to networked systems. Determines operating system, field equipment, database location, and links to mobile computers. Develops display formats for information. Recommends acquisition of hardware. Trains staff and maintains hardware, and software.

Additional Duties/Responsibilities

- Ensures safety of staff, contractors, and the public using water and wastewater facilities. Checks for potential hazards and initiates corrective measures. Monitors controls for water, wastewater, and hazardous materials.
- Organizes and administers special programs as required. Conducts site tours, with other staff.
- Participates in asset management programs by providing systems data and requirements. Participates in the development, implementation, continuous improvement, and conformance of the drinking water quality management system (DWQMS).
- Maintains computer software/hardware, networks, equipment, and licensing. Has signing authority and a P-card. Recommends hardware purchases and monitors budget for same. Verifies monthly water consumption reports to collect revenues from area municipalities.
- Liaises and coordinates with IT regarding networking activities to support disaster recovery and business continuity planning. Determines database back-up requirements and recovery procedures; maintains and monitors standby databases and server backups. Works with other staff to meet recovery needs and ensure alignment for return-to-operation strategy. Maintains system availability, including design and maintenance of failover/clustering capabilities.
- Obtains/relays information from suppliers, consultants, and contractors. Contacts hardware and software suppliers. Contacts telecommunications companies regarding communication systems maintenance. Responds to complaints and data requests from local municipalities and customers.
- Backs up the supervisor.
- Performs related duties as required.

Knowledge, Skills, and Abilities

- 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.

The Region of Waterloo is an equal opportunity employer committed to an inclusive, barrier-free recruitment and selection process. The Region of Waterloo invites applications from all qualified individuals. We are strongly committed to employment equity, diversity and inclusion in the workplace and encourage applications from Black, racialized/visible minorities, Indigenous/Aboriginal people, women, persons with disabilities, and 2SLGBTQIA+ persons.

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, TTY number (519-575-4608) to request an alternate format.

Please note: candidates will be provided an update on their application. Please check your spam or junk folder occasionally as some candidates have noticed our emails in those folders (Gmail and Hotmail in particular).

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