

Water Resources Engineer

Competition Number	#134-791	Job Code	1132
Posting Date	October 12, 2022	Closing Date	February 3, 2023
Job Status	Permanent Full-Time		

The **City of Kitchener** is a vibrant and dynamic city of approximately 240,000, in the heart of southwestern Ontario. As the largest municipality in Waterloo Region, Kitchener continues to be poised for development and growth, enhancing its reputation as a leader in city-building and innovation, with nationally recognized strategies to build its neighbourhoods, its digital infrastructure and its diverse economy.

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Position Overview:

Under the direction of the Manager, Environmental Compliance and Utility Performance (Sanitary and Stormwater), the Water Resources Engineer will provide engineering and planning support functions to the Sanitary and Stormwater Utility contributing to a supportive and innovative work environment.

The primary responsibility of this position is for the review, analysis, and preparation of technical comments on development applications and capital projects as it relates to the regulatory compliance, approvals and enforcement of the conditions with the Consolidated Linear Infrastructure (CLI) Environmental Compliance Approvals (ECA) for both Sanitary and Stormwater issued to the City of Kitchener by the Province of Ontario. Additionally, this position will provide engineering services on behalf of the Sanitary and Stormwater Utilities Division to the public, outside agencies, and other City divisions, including, but not limited to, project management of sanitary and stormwater monitoring projects, the design of capital works (e.g. low impact development, green infrastructure implementation, sewers, stormwater management facilities/parks/trails, watercourses, hydraulic and hydrological modelling), and the implementation of standard operating and maintenance procedures and compliance reporting for the CLI-ECA.

Responsibilities:

- Review and analyze proposed wastewater and stormwater infrastructure for development applications and City-led projects to ensure municipal design standards are applied and environmental compliance with the City's CLI-ECA.
- Provide technical summaries and reports to management regarding the status of proposed developer and City infrastructure with recommendations, advice or direction on approvals and/or modifications to the wastewater and stormwater systems.
- Participate in the development of, and lead the management, including all reporting elements, of a system-wide ECA for the City, authorized by the Ministry of Environment, Conservation, and Parks (MECP).

- Ability to analyze and compile all monitoring data, drawings, work order maintenance reports, asset information and geographical information system database required for reporting to the MECP.
- Evaluate and review environmental engineering reports, assessments and studies including wastewater and stormwater management strategies submitted in support of development applications to adhere to City policies and CLI-ECA regulatory requirements.
- Reviews preliminary and detailed designs for complex / sensitive development applications and internally resourced municipal capital projects including low impact development, underground infrastructure (storm and sanitary), sewage pumping stations, watercourse, stormwater management facilities and green infrastructure as applicable to the City's CLI-ECA requirements.
- Lead, manage and direct multi-disciplinary project teams comprised of internal and external engineering professionals as it relates to special project studies (i.e. annual stormwater management and monitoring, subwatershed, environmental implementation, etc.) and ensure projects are completed and delivered on-time, within scope and within budget.
- Subject matter expert in long term planning studies including but not limited to: Watershed/Subwatershed Studies, Master Plans, Hydrologic and Hydraulic Modeling Studies dealing with stormwater and wastewater infrastructure, and water resource and environmental issues.
- Assumes professional responsibility related to green infrastructure feasibility and conceptual design reports through the application of professional seal and signature, which may include final drawings, specifications, plans and other applicable documentation.
- Analyze and evaluate the existing City-wide InfoWorks ICM model for both planned and unplanned infrastructure (sanitary and storm) as well as operate other hydrology/ hydraulic models as required for development applications and internal capital projects.
- Contributes to the maintenance of the sanitary and storm hydraulic models and assists in developing solutions to meet certain design criteria for new and replacement infrastructure related to CLI-ECA requirements.
- Lead in the development of a strategic O&M planning framework to optimize sanitary and stormwater infrastructure lifecycles while reducing maintenance activities and costs
- Liaises with and proactively develops relationships with internal and external stakeholders, including area municipalities and government agencies, to facilitate the delivery of services and resolve environmental issues.
- Supports the collection and reporting of data and information for the National Water and Wastewater Benchmarking Initiative.
- Lead in the development and management of best management practices, LID design standards, technical standards, specifications, drawings and guidelines for wastewater and stormwater projects, policies and programs to ensure compliance with the CLI-ECA for the City's Municipal Sewage Collection System and Stormwater Management System.
- Represents the City on external and internal stakeholder working groups and committees and communicates with area municipalities on standards, guidelines and specifications as they relate to low impact development and green infrastructure implementation.
- Fosters and develops a culture of continuous learning and development of others in alignment with core values and leadership traits.
- Performs other related duties as assigned.

Requirements:

- Must be reliable with good attitude and employment record.

- Bachelor's degree in Civil, Water Resources or Environmental Engineering (or equivalent)
- 4-7 years of related experience
- Registration as a licensed Professional Engineer (P.Eng.) with the Professional Engineers of Ontario (PEO).
- Demonstrated progressive experience in Class 3 & 4 Wastewater Systems.
- Must have experience in project management / coordinating projects through the design phase, design / preparation / interpretation of engineering plan and profile drawings; cost estimating and infrastructure management; surveying, design and inspection procedures, infrastructure systems with solid understanding of technical terms related to Civil and Water Resources Engineering, design and construction methods and practices.
- Project management certification or other relevant professional certification is an asset (e.g. PMP, six sigma, etc.)
- Strong working knowledge of the Ontario Water Resources Act, which governs the CLI-ECA, as well as supporting legislation that governs the field of municipal engineering such as the Environmental Protection Act, Municipal Act, Drainage Act, Occupational Health and Safety Act.
- Must have the ability to interact with various individuals including engineers, contractors, consultants, members of senior management, non-government not-for-profit organizations, council and the public, with matters arising from rehabilitation or reconstruction projects including potential environmental impacts through the use of exceptional communication (written and oral) and problem-solving skills.
- Strong understanding of hydrology and hydraulic models (InfoWorks ICM, InfoSWMM, PCSWMM, LID TTT, PCSWM, SWMHYMO, MIDUS, HEC RAS, etc.) with the underlying principles, physical and hydraulic processes and of best practices in model development, calibration and verification.
- Strong knowledge of Microsoft Office 365, AMANDA, SAP, OnPoint and CityWorks.
- Demonstrated experience using Autodesk software applications (i.e. Civil 3D).
- Demonstrated experience in the design and construction of stormwater infrastructure including SWM facilities, green infrastructure/low impact development, and storm sewers as well as municipal wastewater (sanitary) infrastructure including sewage pumping stations.
- Must be technically competent in water quality and quantity control specifically as it relates to urban stormwater management, and familiar with the evolution toward adaptive and innovative approaches in stormwater management.
- Must have knowledge of current legislation and the application of Green Infrastructure, ETV standards, LID, water quality monitoring programs, and sediment management.
- Must have proven analytical, problem solving, and strong mathematical skills required to perform technical and scientific calculations.
- Excellent interpersonal, customer relations, project/time management, organizational, analytical, written and oral communication, and problem-solving skills
- Valid Ontario driver's license.

The City of Kitchener is committed to an equity-driven, inclusive, accessible, and barrier-free recruitment and selection process, and to ensuring our workforce reflects the full diversity of the community we serve. We welcome applications from Indigenous, Black, racialized and 2SLGBTQ+ persons, as well as other equity deserving groups.

We will accommodate the needs of applicants under the Human Rights Code and Accessibility for Ontarians with Disabilities Act (AODA) throughout all stages of the recruitment and selection process. Please contact Human Resources at recruitment@kitchener.ca, or 519-741-2200 ext. 7261 to make your needs known, so that we can support your full and equal participation throughout the hiring process.

We appreciate the interest of all applicants. Only candidates whose skills, experience and qualifications meet the requirements of the position will be contacted.

Please note that as per Human Resources Policy HUM-HIR-110, "Employment of Relatives of Staff Members and Elected Officials":

"The immediate relatives of staff of the Human Resources Division, all Directors, General Managers, or the Chief Administrative Officer and Elected Officials shall not be employed by the City in any capacity. The immediate relatives of all other Management personnel shall not be employed where such employment would be:

- 1. within the same Department in the case of permanent full-time, temporary full-time and part-time classifications.*
- 2. within the same Division in the case of students."*

Department	Infrastructure Services	Division	Sanitary and Stormwater Utilities
Union Affiliation	CUPE 791	Number of Positions	1
Hours of Work			
Location			
Initial Location	Kitchener Operations Facility	City	Kitchener
Compensation			
Salary Range	\$92,944 - \$116,181	Grade/Band	11 (Under review)

