

REPORTS TO: Director of Water Resources Engineering

SUMMARY: A key member of the Mississippi Valley Conservation Authority (MVCA) team; the Water Resources Engineer supports the delivery of capital infrastructure projects related to life-cycle management of MVCA water and erosion control structures, flood forecasting and warning services, regulatory floodplain mapping, environmental assessments, and watershed studies. The Water Resource Engineer also provides technical support to environmental planning by reviewing and making recommendations regarding engineering aspects of planning and Section 28 applications, conducts site inspections, and liaises with a variety of stakeholders.

MAIN RESPONSIBILITIES (This is not an exhaustive list)

- Assist with capital infrastructure projects including dam operations, inspections, repairs, environmental assessments, constructions, and preparation of public safety and emergency preparedness plans for MVCA dams.
- Deliver floodplain modelling and mapping studies, flood risk assessments, watershed hydrology studies, inundation studies, and updating of regulatory limits.
- Assist with the execution of MVCA's flood forecasting and warning program.
- Perform technical reviews for planning applications related to stormwater management and permit applications for development and impacts to wetlands, alteration to shorelines and watercourses, including slope stability assessments, floodplain assessments, hydraulic assessments, and cut and fill calculations.
- Write reports and deliver presentations at public, municipal and Authority meetings.
- Liaise with provincial government staff, other government agencies, municipalities and the general public.
- Conduct site inspections, field surveys, data collection, data processing, and field monitoring.
- Perform work in accordance with the provisions of *Occupational Health and Safety Act* and Regulations and all other corporate/departmental policies and procedures.
- Perform other related duties as assigned by supervisor.

SKILLS, KNOWLEDGE AND ACCREDITATION

EDUCATION/EXPERIENCE:

- University degree in Civil Engineering with a specialization in, or experience with, water resources engineering and water management.
- Designation as a Professional Engineer in the Province of Ontario.
- Five years of progressive related experience.
- Valid Class G Driver's License.
- Experience and formal training combined with demonstrated performance and ability may substitute for stipulated academic/experience requirements.

TECHNICAL KNOWLEDGE/COMPETENCIES

- In depth knowledge of hydrologic and hydraulic calculations and modeling (HEC-HMS, HEC-RAS, PCSWMM, SWMHYMO).
- Experience with watershed modeling and regulatory floodplain mapping.
- Knowledge of water control structure operations, design, and asset management.
- Knowledge of stormwater management design and erosion and sediment control principles.
- Working knowledge of applicable legislation, guidelines and policies, including but not limited to the Conservation Authorities Act, Planning Act, Provincial Policy Statement, Environmental Assessment Act, Lakes and Rivers Improvement Act, Provincial/Federal Dam Safety Guidelines, and the Occupational Health and Safety Act and related Regulations.

DEMONSTRATED ABILITIES/SKILLS

- Strong organizational and project management skills.
- Excellent problem-solving skills, collaborative decision-making and analytical skills.
- Provide excellent service to internal and external clients by focusing efforts on discovering and meeting their needs; strong negotiation and conflict resolution skills.
- Communicate effectively and concisely, both orally and in writing; including effective presentation skills.
- Demonstrated integrity, creativity and enthusiasm in achieving results.
- Demonstrated success in a fast-paced environment.
- Work effectively both independently as well as in a team environment.
- Quickly shift priorities and adapt to changes to meet organizational and department requirements.
- Support and adapt to changes in organizational structure, processes, and service delivery.

EFFORT

- Fatigue resulting from focusing and juggling multiple priorities and deadlines.
- Fatigue resulting from a very high degree of concentrated attention, focused thinking/analysis/interpretation.
- Some physical effort when conducting site inspections – navigating uneven terrain.

WORKING CONDITIONS

- Work is performed primarily in an indoor environment with occasional site exposure.
- Travel is normally within the Mississippi Valley Conservation Authority's territory; however, there may be an occasional requirement for traveling greater distances.
- Occasionally required to extend hours of work to evenings or weekends to meet work demands.
- Occasional meetings with clients and consultants.

LANGUAGE

- English.