

Job Class Profile: Regional Water & Wastewater Systems Specialist**Pay Level: CG-32 Point Band: 704-717**

Factor	Knowledge	Interpersonal Skills	Physical Effort	Concentration	Complexity	Accountability & Decision Making	Impact	Development and Leadership	Environmental Working Conditions	Total Points
Rating	5	5	3	5	4	4	4	1	4	
Points	233	83	19	24	120	87	83	21	43	713

JOB SUMMARY

The Regional Water & Wastewater Systems Specialist performs specialized and technical engineering work for the design, construction, monitoring and operation of municipal water and wastewater infrastructure in an assigned region of the province.

Key and Periodic Activities

- Identifies and assesses the specific needs of municipalities in terms of water and wastewater servicing by carrying out field inspections, sanitary surveys, public complaints investigations and sampling programs in order to adequately rank Municipal Capital Works funding requests.
- Evaluates, ranks and recommends Municipal Capital Works funding requests through a comprehensive process involving senior officials of various government departments. Participates in the evaluation and recommendation of alternative water and wastewater servicing and treatment technologies in order to provide cost effective systems for municipalities.
- Assesses proposed water and wastewater projects for Federal, Provincial and Municipal governments and private proponents through pre-design consultation and review of engineering drawings and specifications, verifying design calculations, fee collection, site visits, liaising with engineering consultants and/or proponents to ensure conformity with required standards and codes.
- Prepares Certificates of Approval for the Minister's signature using standards and project specific conditions to ensure that the proposed work will conform to environmental standards and requirements. Ensures the stipulations of such certificates are being adhered to through site inspections and liaising with the appropriate parties.
- Participates in the delivery of municipal water and wastewater systems operators training by organizing courses and seminars using existing departmental training programs and manuals. Delivers exams for the certification of municipal water and wastewater systems operators in their respective fields.
- Maintains up-to-date inventory of regulatory approvals, capital work projects, boil water orders, water and wastewater systems and sewage outfalls through computerized database development and updates. Provides baseline and trend data on the status and progress of municipal infrastructure, effectiveness and efficiency of water and wastewater treatment

Key and Periodic Activities

- facilities, functioning of sewage outfalls and data required for future planning.
- Represents the department at municipal, interdepartmental and public meetings to provide and explain information with respect to divisional requirements.
- Responds to public complaints concerning municipal water and wastewater problems by carrying out site investigations/inspections, liaising with staff of other departments, municipal officials and owners. Recommends corrective action.
- Initiates legal action by preparing Consent to Prosecute and Stopping Orders for Minister's signature in consultation with the Department of Justice in order to address environmental violations.
- Identifies, plans, coordinates, conducts and evaluates data collection programs on inland and salt water bodies using specialized instruments and monitoring techniques; prepares written reports on findings for the Manager.
- Undertakes the monitoring of water and wastewater treatment plans and sewage outfalls in each region through the collection of data from onsite sampling, testing and monitoring to evaluate the performance of the treatment plant or outfall; prepares written reports on findings.
- Provides technical engineering advice to the Regional Government Services Centre by assisting them in the review of engineering drawings for proposed large on-site sewage disposal systems and supplying information as it relates to water and wastewater works.
- Participates in the preparation of technical interpretive reports and the development of policy guidelines.

SKILL

Knowledge

General and Specific Knowledge:

- Water and wastewater treatment systems
- Civil engineering design
- New and emerging water and wastewater technology
- Municipal Capital Works Funding

Formal Education and/or Certification(s):

- Minimum: 3 Year Specialized Post-Secondary Diploma in Civil Engineering Technology or Environmental Engineering Technology

Years of Experience:

- Minimum: 4 -5 years

Competencies:

- Analytical skills
- Organizational skills
- Investigative techniques
- Assessment skills
- Presentation skills

- Written and verbal communication skills.

Interpersonal Skills

- A range of interpersonal skills such as listening, asking questions, providing routine and specialized information is used to identify and assess the specific needs of municipalities in terms of water and wastewater servicing; participates in the delivery of municipal water and wastewater systems operators training; represents the department at municipal, interdepartmental and public meetings to provide and explain information with respect to divisional requirements; responds to public complaints and provides technical engineering advice to various individuals.
- Communications occur with employees within the immediate work area/department/government, municipal, provincial or federal government representatives, departmental executives and general public.
- Most significant contacts are with Water Resources Management Engineer or Director (to review assigned work through periodic meetings and reports); municipal and other government officials (to discuss specific needs); Departmental Committee Members (represents department on committee which ranks and prioritizes municipal funding requests and makes recommendations on related spending).

EFFORT

Physical Effort

- The demands of the job do not result in considerable fatigue, requiring periods of rest.
- The use of hand tools, such as chlorine residual test kits, is regularly required resulting from the performance of inspections at various sites, treatment plants, etc. Standing and walking occurs for the majority of time when conducting site visits.
- As work involves travel throughout the province, driving is also a regular requirement.
- Occasionally, the use of fine finger/precision work to write reports and update databases occurs.

Concentration

- **Visual concentration** is required when carrying out field inspections, conducting sanitary surveys, reviewing engineering drawings and specifications to ensure conformity with required standards and codes.
- **Auditory concentration** is required to listen to public complaints, to liaise with engineering consultants and to provide and explain information related to water and wastewater systems.
- Activities such as delivering training; maintaining up-to-date inventory of regulatory approvals; capital work projects; boil water orders; and collection of data from onsite sampling, testing and monitoring to evaluate performance of treatment plans or outfalls can be **repetitious and require alertness**.
- **Time pressures and deadlines** are experienced as a result of administrative responsibility for the review and approval of new municipal water and wastewater infrastructure linked with capital works funding.
- Work activities involving the use of specialized instruments for data collection and the use of a computer to prepare reports and related correspondence requires **eye/hand coordination**.

- Performing design calculations, reviewing engineering drawings, preparing Certificates of Approval, and delivering exams for the certification of municipal water and wastewater systems operators require **exact results and precision**.

Complexity

- Tasks range from repetitive/well defined to different and unrelated requiring the use of a broad range of skills and a diversity of knowledge. Such activities consist of specialized, technical engineering work; identification of needs and assessment of municipal capital works funding requests; technical inspections, surveys and operator (hands-on) training.
- Required to keep abreast of trends and developments to facilitate participation in the evaluation and recommendation of alternative water and wastewater servicing and treatment technologies in order to provide cost effective systems for municipalities.
- Some challenges/problems/issues that may arise include non-compliance with environmental stipulations outlined in Certificates of Approval.
- Reference material available includes legislation, regulations, standards and codes, departmental policies and procedures.

RESPONSIBILITY

Accountability and Decision-Making

- Function with minimal supervision with work assigned in terms of objectives, scope and deliverables as outlined in the annual divisional work plan.
- Provides technical engineering advice to operators by reviewing engineering drawings for proposed large on-site sewage disposal systems and providing training and delivering exams for certification.
- Work is reviewed by the Water Resources Management Engineer or Director through reports and periodic meetings.

Impact

- Impacts are felt internally within the immediate work area/department/government as well as externally, particularly with the general public.
- Resources affected include processes and systems (assessment of applications for infrastructure funding); equipment (municipal water & wastewater systems), information (reports and recommendations), finances (cost of equipment), facilities (municipal water & wastewater systems), other – operators (inspections, monitoring, training); health and safety (supply of clean drinking water) and corporate image.
- The consequences of a mistake or error can impact municipal water and wastewater systems and the supply and safety of drinking water to the public.

Development and Leadership of Others

- Not responsible for the supervision of staff.
- There is no requirement to provide on-the-job advice and guidance.

WORKING CONDITIONS

Environmental Working Conditions

- Safety equipment and/or precautions such as hard hat, boots, vest, as well as OHS (WHMIS) training are required.
- There is limited likelihood for injuries or illnesses resulting from hazards given that all health and safety requirements are followed.
- Travel is required on a regular basis to perform inspections and monitor water quality.
- Occasionally exposed to unusual/distracting noise, dirt, dust, glare, fumes, limited ventilation & lighting, hazardous chemicals (disinfectants, ozone), dangerous heights or depths, wet or slippery surfaces, awkward or confining workspaces, temperature extremes (internal motors in plants), physical dangers (construction sites), heavy machinery and adverse weather conditions.