Job Class Profile:

Environmental Scientist

Pay Level:

CG-41

Point Band:

950-993

						Accountability		Development	Environmental	
		Interpersonal				& Decision		and	Working	Total
Factor	Knowledge	Skills	Physical Effort	Concentration	Complexity	Making	Impact	Leadership	Conditions	Points
Rating	7	6	2	5	6	6	6	1	3	
Points	327	100	13	24	180	130	124	21	32	951

JOB SUMMARY

The Environmental Scientist performs professional scientific work relating to protection of the environment and administering provisions of relevant legislation. Work involves the performance of professional environmental work in directing environmental assessments, performing scientific surveys, reviewing studies/reports and making recommendations, providing expert advice and participating in research and analysis activities on suspected pollution problems May specialize in a particular scientific field such as aquatic, terrestrial, chemistry, toxicology, atmospheric or water science.

Key and Periodic Activities:

- Provides technical guidance and support to industry and other government departments on concerns and issues dealing with a variety of environmental pollution issues.
- Reviews federal legislation and provides comments on any potential impact on the environment.
- Researches and develops environmental guidelines and assists in the evaluation and development of policies and regulations.
- Ensures the administration and enforcement of applicable environmental planning and legislation; investigates potential violations of various acts and regulations. Prepares reports on findings and recommends and implements appropriate courses of action.
- Directs various monitoring projects on activities affecting the environment within the particular area of specialization; designs and conducts research projects and studies to evaluate the impacts of resource development and activities on air, soil, water and/or groundwater quality and quantity; develops management plans, system and quality studies and other scientific and technical projects.

Depending on area of specialty, specific tasks and activities may include the following:

- Directs environmental assessments of proposed resource development or constructions projects; assists in the review of project proposals against established criteria and makes recommendations on the need for formal environmental assessments; reviews and evaluates environmental assessment study proposals and makes recommendations on terms of reference for such studies.
- Performs water quality monitoring including site selection, site documentation, data management, and network design; cleans and calibrates scientific instruments; troubleshoots; installs/removes instruments; interprets data, etc.; gathers a collection of water samples from

Key and Periodic Activities:

- various drinking water supply areas, testing and monitoring for safety.
- Writes a variety of documents and reports to determine the issuance of Certificate of Approvals, as well as the writing of quality reports and development plans.
- Liaises with federal and provincial government departments and municipalities on industry related concerns.
- Participates in partnership development and management between various organizations.
- Employees in this class may be required to mediate, coordinate and facilitate resource management and land use conflicts.
- Represents the department on a variety of committees.

SKILL

Knowledge

General and Specific Knowledge:

- Requires specific technical knowledge in such fields as hydrology, hydraulics, engineering design, modeling, statistical analysis, environmental acts and regulations and environmental site assessment protocols
- Current knowledge of trends and new developments and research in the field
- Specific knowledge relating to the development and design of new policies and programs

Formal Education and/or Certification(s):

— Minimum: Undergraduate Degree – Environmental Science or related discipline

Years of Experience:

— Minimum: 4 to 6 years of experience

Competencies:

- Strong research skills
- Written and verbal communications skills

Interpersonal Skills

- A range of interpersonal skills include listening and asking questions with other employees, dealing with clients and/or public concerns relating to development proposals, providing technical advice and guidance to industry representatives, promoting ideas, and dealing with upset or angry people (such as clients waiting for status of development proposals and or training certification).
- Communication occurs with employees/peers, supervisor/manager, employees within and outside the department, representatives from other agencies and general public.
- Most significant contacts are: Employees/peers (to discuss issues, concerns and/or provide feedback); Supervisor/Manager (to obtain support and direction for program areas);
 Representatives from other agencies (to discuss environmental issues).

EFFORT

Physical Effort

- The demands of the job do not result in considerable fatigue, requiring periods of rest.
- Lifting or moving objects over 50 lbs such as coolers of water samples occasionally occurs for
 positions specializing in water resources.
- Typically sit at a computer and perform analysis of data and write reports for extended periods
 of time and while driving.
- Fine finger and precision work occurs when performing data analysis and report writing.
- Occasionally required to use hand tools that require accurate control and steadiness, such as when calibrating scientific instruments.

Concentration

- Visual concentration includes staring at a computer screen to read and analyze data and when collecting samples for testing. When working in the field, there is a requirement to be cognizant of your surroundings to ensure safety.
- Sense of smell can determine if there are certain contaminants on land or water.
- Time pressures are experienced when assessing applications and issuing permits within set timeframes.
- Exact results and precision as well as higher than normal level of attentiveness are required when labeling samples to ensure correct and consistent information is recorded and when reviewing project proposals and making recommendations of need for formal environmental assessment.

Complexity

- Tasks are typically different/unrelated and require the use of a broad range of skills and a diversity of knowledge as positions in this class can specialize in a variety of areas. Activities range from directing environmental assessments to participating in research.
- Certain challenges/problems/issues require a site visit to define the situation and make a determination of type of solution required. This can range from water quality issues, land uses and/or hazardous waste issues. Others, however, tend to require creative problem definition and solution development, depending on the extent and type of issue.
- Required to keep abreast of trends and developments in environmental science, such as new technologies, systems and assessment techniques.
- Reference material available includes legislation and regulations, guidelines, advice from colleagues and information from other jurisdictions.

RESPONSIBILITY

Accountability and Decision-Making

- Can issue certain Certificates of Approval for such things as transportation of hazardous waste. They may also release data to clients, communities and partners requiring a high degree of discretion and judgement. Small scale purchases can also be made.
- May need formal approval for major purchasing of equipment and final approval for development permits. Work results are in the form of recommendations for approval/rejection.
- Provides advice/recommendations on development proposals.
- Acts independently and must exercise a high degree of discretion and judgement when

receiving a complaint and determining its validity and level of response needed.

 Review federal legislation and provide comments on any potential impact on the environment; researches and develops environmental guidelines; and assists in the evaluation and development of policies and regulations.

Impact

- Impacts are felt internally within the immediate work area/department/government as well as externally with clients/general public. Resources affected mainly include information, finances, facilities, health, safety and corporate image. The Department of Environment provides the regulatory framework and related documents for guidance to stakeholders in the event of non-compliance with environmental standards such as release of contaminants, hazardous waste into soil or water.
- The consequences of a mistake or error can impact the public as it could cause exposure to hazardous chemicals or contaminated drinking water, etc.
- The risk or consequences of an error in sampling of water quality, as it is tested by laboratory staff and protocols are in place to mitigate errors. Positive impacts work has is the confidence of the public knowing that a variety of monitoring and assessments are conducted to ensure environmental standards are being upheld.

Development and Leadership of Others

- There is no supervision of staff.
- Provides advice and/or guidance, direction and provide feedback to other employees or students.

WORKING CONDITIONS

Environmental Working Conditions

- Safety equipment is not typically required; however, precautions are necessary for positions specializing in water science as it involves conducting water sampling. As such, it is necessary to wear personal flotation devices and possess rescue equipment such as throw ropes when performing such activities. Sampling conducted during the winter season requires the use of ice cleats. To access the water source it sometimes requires walking on woods roads with rough terrain.
- There is limited likelihood for injuries or illnesses resulting from hazards given that all safety
 precautions are adhered to.
- Travel is required when conducting field tests or when visiting sites to assess development proposals.
- Occasionally there is exposure to adverse weather conditions and working on wet or slippery surfaces. In some instances, may be required to work alone in isolated locations.