

Working Title Surface Water Quality Technologist		Name	
Position Number	Reports to Position No., Class & Level Tech 6	Division, Branch/Unit EMSD/EMOB	Ministry Environment and Parks
Present Classification Technologies 5		Requested Classification	
Dept ID	Program Code	Project Code (if applicable)	

PURPOSE:

Execution of ambient Surface Water Quality monitoring activities within the current Department plan and mandate, resulting in the safe, efficient and accurate gathering of data. Specifically, this position will be involved in the Oil Sands Surface Water Quality Monitoring Program in the Lower Athabasca Region. Some involvement in the data gathering activities of other disciplines will be required, including hydrometric, meteorological, and groundwater. There will also be a requirement for response to environmental emergencies.

RESPONSIBILITIES AND ACTIVITIES:

1. Carry out Surface Water Quality (SWQ) sampling programs using Standard Operating Procedures (SOPs).
 - a. Provide input to SOP development and review, as related to ambient SWQ monitoring activities such as water sampling, biological and sediment collections, and multiprobe deployments.
 - b. Operate, program, maintain and calibrate all required instrumentation, sensors, and dataloggers, both remote and near real-time.
 - c. Prepare bottle sets, Chain of Custody lab documents, preservatives, shipping forms for samples, ensure samples arrive to lab within timelines, as per SOP
 - d. Independently operate specialized vehicles, trailers and equipment, with possible oversight of others in this regard.
 - e. Complete site-level Hazard Assessments and contribute to Safe Work Procedure development.
 - f. Undertake inspection, maintenance and preserve integrity of Surface Water Quality Network stations and related equipment.
2. Undertake Project-Level planning with supervisor and Limnologist/Principle Investigator
 - a. Help provide estimates for resources to complete Work-Plans
 - b. Enter project/activity time in appropriate application to enable tracking of resources spent on projects
 - c. Undertake purchasing processes for both operational and capital items in fulfillment of Work-plans
 - d. Help with establishing SWQ sites and produce Memoranda of Understandings for the sites, registering them through the appropriate licensing agency.
3. Data Validation, processing, entry
 - a. Ensure site codes, Valid Method Variables and other metadata are set up for project
 - b. Enter data into databases, quality controlled and validated for evaluation purposes
 - c. Participate in community of practice to ensure competencies are maintained in data and field skills
4. Environmental Spill Response.
 - a. Ensure network equipment remains functional and calibrated for emergency needs.
 - b. Ensure equipment is cleaned to standards to prevent spread of Aquatic Invasive species.

RESPONSIBILITIES AND ACTIVITIES:

- c. Participate in responses to environmental emergencies (e.g. oil and chemical spills, flooding, aquatic invasive species) on Alberta waters.

SCOPE:

Work is procedure-oriented operating varied equipment (electronic and manual), and involves the use of, and input to, complex SOPs. This position requires the ability to complete activities independently and may involve mentoring junior personnel and oversight of temporary/short-term staff. Relationships extend beyond the Department to governments, academic institutions, NGOs, contractors, and unstructured external partners and public. The ambient data collected has value for long term trends in quantity and quality, industrial users of water bodies, approvals and licensing, impact assessments, and cumulative effects management. The ability to respond to environmental emergencies within a timely manner, over extended periods in remote areas and in adverse conditions, utilizing standard monitoring equipment and skills is paramount. Able to carry out and lead projects of some complexity (i.e., multiple labs, partner relationships, logistics, and instrumentation). Operate, maintain calibrate and program all required instrumentation, with a deep level of understanding of it and other gear, and possess a basic knowledge of limnology. Creative and adaptive abilities are required in carrying out assigned projects within the prescribed SOPs.

KNOWLEDGE, SKILLS & ABILITIES:

- Minimum 2-year college/technical diploma or equivalent.
- Minimum 4 years of related experience.
- Class 5 Operators' Licence (or equivalent). Operate specialized vehicles independently e.g. boats, snow machines, and ATVs.
- Required Safety certifications include: Standard First Aid, Defensive Driver, Collision Avoidance, Trailing, WHMIS, TDG, Marine Emergency Duty / Small Vessel Operator Proficiency training and cold water survival, Wildlife Awareness, Swift Water Rescue, and Ice Safety Technician, taken in first 2 years of employment.
- Outdoors and/or field-oriented; basic survival skills (as appropriate) and ability to perform physically, mentally, and emotionally challenging work in all environmental conditions over extended periods.
- Effective team-working and strong communication skills and abilities.
- Strong organizational and time management/prioritization skills to manage numerous responsibilities and ability to quickly adapt to changing work plans.
- Proficiency with instrumentation software/applications in the Surface Water Quality discipline, and a basic understanding of limnology.
- Operate, maintain and calibrate all required Surface Water Quality instrumentation, sensors and data loggers.
- Ability and enthusiasm to learn new skills and competencies within the Surface Water Quality discipline, with a spirit for innovation and problem solving on the fly.
- Intermediate navigational skills (use of map & compass and/or basic GPS).
- Be able to implement, troubleshoot and provide input to SOPs.
- Intermediate use of MS Office applications.
- Have some knowledge/skill with a variety of hand and power tools.
- Completion of all available position-related training/certification courses within specified timelines.
- Eligibility for professional or technical association membership/designation is preferred.

CONTACTS: The main contacts of this position and the purpose of those contacts.

Peers, supervisor, manager, science professionals, media, contractors, emergency personnel, public, government personnel, other agencies, NGOs.

SUPERVISION EXERCISED: List position numbers, class titles, and working titles of positions directly supervised.

Mentoring and/or oversight of temporary/short-term personnel at the Technologies 1-4 levels. Oversight of peers from other disciplines and tech levels.

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This information is being collected under the authority of Section 10 of the Public Service Act and will be used to allocate positions within a classification plan and to manage the Alberta government human resources program. If you have any questions about the collection of this information, contact the Compensation Manager, 6th Floor, Peace Hills Trust Tower, 10011 - 109 Street, Edmonton, Alberta, T5J 3S8, phone 408-8400 or contact your Ministry Human Resource Office.

Signatures

The signatures below indicate that the incumbent, manager and division director/ADM have read, discussed and agreed that the information accurately reflects the work assigned.

Incumbent

_____	_____	_____
Name	Signature	Date

Manager

_____	_____	_____
Name	Signature	Date

Division Director/ADM

_____	_____	_____
Name	Signature	Date