



## IDENTIFICATION

Department	Position Title	
Environment and Climate Change	Regulatory and Science Advisor	
Position Number	Community	Division/Region
23-14287	Yellowknife	Regulatory and Permitting /HQ

## PURPOSE OF THE POSITION

The Regulatory and Science Advisor (Advisor) is responsible for the evaluation of water license applications and resource development proposals for compliance with legislation and regulations such as *the Waters Act* and Regulations, *Mackenzie Valley Resource Management Act*). The Advisor provides guidance and consulting advice to proponents, Indigenous governments and Indigenous organizations and other stakeholders on technical, engineering and policy issues related to water management in the Northwest Territories (NWT), and provides results from additional research/study of project-related influences on water management according to specific developmental components or environmental assessment in the Northwest Territories (NWT).

## SCOPE

Located in Yellowknife and reporting to the Manager, Water Regulatory (Manager), the Regulatory and Science Advisor participates in the regulatory screening and assessment of project related effects for water license applications through formal consultation processes stakeholders. This position recommends the need for action including exemptions, further review, mitigation measures, etc., identifies the need for regulatory changes and develops guidelines and policy amendments for review by the Manager and senior Departmental staff and identifies inter-jurisdictional issues with potential impact on existing legislation and water-related policy areas such as sustainable/renewal development and trans-boundary effects.

The Regulatory and Science Advisor has a role in maintaining the departmental spill response program including the NWT Spills Agreement and representing the department on the spill response committee.

The Regulatory and Science Advisor has responsibility for tracking security deposits for



licensing and reporting on their disposition. The work involves participating in the environmental assessment (EA) process for water license applications and mining/resource development projects proposed by industry, under a range of federal and territorial legislation (e.g., *the Northwest Territories Waters Act, Arctic Waters Pollution Prevention Act, Canadian Environmental Assessment Act*), and providing formal recommendations to governments and resource management boards. The screening of water licenses and development proposals involves the detailed assessment of potential impacts of all industry project phases from inception to commissioning and decommissioning, and affects the planning and implementation of mining, oil and gas exploration and development in the Territory.

The Advisor provides professional and technical expertise to senior management, industry, other departments, First Nations, and communities with respect to: the screening of development proposals; the conduct of comprehensive studies; the assessment of potential threats and recommended mitigation measures; and identifying further engineering, hydrological or environmental studies.

The Advisor, as the responsible scientific authority, participates in the environmental assessment process through the start-up, assessment, decision, and follow-up phases. At each stage of the EA process, the incumbent develops detailed scientific information for project proponents (or their consultants), for federal and territorial agencies, and the public. In addition, the incumbent represents the department through participation in public review panels and forums established under the appropriate legislation. The work includes professional accountability for evaluating the proposed projects' environmental impacts on land and/or water resources, including the effects of malfunctions or accidents which may occur and their potential cumulative effects; and for proposing feasible mitigation measures.

On an ongoing basis, the work involves providing authoritative advice on broad resource management and related environmental issues to departmental managers, industry, Indigenous governments and Indigenous organizations and community groups. In addition, the incumbent provides technical advice as the department's representative on panels, working groups and committees. The work involves scheduling, organizing, directing, and monitoring project teams, ensuring that financial and human resources are managed appropriately, and contributing to budget and operational planning exercises.

## **RESPONSIBILITIES**

1. Designs, implements, and leads multi-disciplinary scientific and technical assessments to screen development proposals to identify direct/indirect impacts, cumulative effects and mitigating measures.



2. Provides professional advice and consulting expertise to industry and Land and Water Boards at all phases of mining or development projects; provides a technical and policy related reviews of proponents' reports and submissions and represents the department on Board-established technical committees, at technical meetings and more formal technical sessions for major projects/developments.
3. Conducts departmental reviews and prepares departmental submissions that outline concerns, issues and recommendations for Land and Water Boards' consideration in designing a water license or approving plans or submissions as required by the water license.
4. Leads, supervises, and coordinates the work of project teams; identifies and recommends the need for external expert review as necessary.
5. Budgets for, drafts and manages contracts for external consultants or other support for the technical review work.
6. Monitors water resource issues and identifies the requirements for the development and/or revision of policy, guidelines, and legislation governing wafer protection. Aides in the development and preparation of required policy and guidelines.
7. Provides additional research/study to address project-specific issues, developmental components, or influences affecting water management and/or environmental assessment in the Northwest Territories.
8. Establishes and ensures the organization and maintenance of databases for water licensing and license submissions.
9. Has a role in the departmental spill response program; acts as departmental representative, or delegate, on the inter-agency/intergovernmental spill response committee, as required.
10. Provides information and education about water license requirements, research programs, and other environmental initiatives to the public and other government agencies via written correspondence, technical sessions, and public presentations.
11. Prepares project-specific security deposit estimates and tracks security deposit requirements for water licenses, ensuring that the departmental security deposit policy is followed in a timely and responsible manner.
12. Review and provide recommendations on project descriptions and water use license applications for a range of mining, oil, gas, exploration, and development projects. This involves interpreting, analyzing, presenting, and applying often complex legislation and making resource management decisions throughout the regulatory process.

## **WORKING CONDITIONS**



### **Physical Demands**

No unusual demands.

### **Environmental Conditions**

No unusual demands.

### **Sensory Demands**

No unusual demands.

### **Mental Demands**

Exposure to external clients is stressful due to opposing views. Some situations may involve threats and/or verbal abuse which may cause mental stress. This exposure may occur during site visits, public hearings and meetings and may be of several hours in duration.

Travel is required for the position, sometimes to remote development sites, twice per year for 1-2 days at a time, or to technical meetings, public hearings, or sessions, 4-6 times per year for 2-5 days at time. Travel to southern jurisdictions for workshops, seminars and forums can occur 1-2 times per year, for 3-4 days per trip.

## **KNOWLEDGE, SKILLS, AND ABILITIES**

- Understanding of the engineering and physical sciences affecting land and water resources, and the application of knowledge in a range of physical science disciplines including hydrology, geology, biochemistry, and knowledge of the theories and practices of mining, milling and metallurgy, in order to assess development proposals and license applications for their environmental impact and regulatory compliance.
- Knowledge of methods of physical- chemical properties analysis, scientific information and data analysis and interpretation, environmental compliance assessment, risk assessment, qualitative and quantitative analysis, and research report interpretation, in order to write authoritative reports on environmental assessment, project evaluation, compliance advice or recommendations with respect to regulatory environmental compliance.
- Knowledge of a complex legislative framework including *Waters Act* and Regulations, *Environmental Protection Act* and Regulations, *Territorial Lands Act* and Regulations, *Fisheries Act* and Regulations, *Impact Assessment Act*, *Mackenzie Valley Resource Management Act*, and the *Northwest Territories Public Health Act*.
- Comprehensive knowledge of the theories and practices of natural resource management, to ensure the responsible use of water, to provide for administration of water licenses and to provide sound advice to the Land and/or Water Boards, including environmental auditing, sampling, testing and analyzing water samples; the theories, principles, methods



and practices of reclamation and compensation to provide direction and ensure implementation of compliance with *the Waters Act*.

- Knowledge of environmental engineering related to municipal water treatment, distribution and solid/liquid waste disposal including: geotechnical and dam safety engineering theory and practices; theories, principles and best practices of civil engineering, mathematics and surveying to evaluate construction and "as-builts" of earthworks such as dams and channels and the capabilities of heavy equipment, as well as the impact and types of defects that could occur on earthwork structures at mine sites.
- Knowledge of wild animals, arctic safety and survival (e.g., weather reading; sheltering; finding food; avoiding risks to health such as frost bite, heat stroke, attacks from wild animals), map reading and orientation in isolated mountain terrain and locations, first aid, radio use, aircraft safety (helicopter and fixed wing) handling, care and use of firearms and basic mechanical repairs to equipment needed to survive while conducting site visits in isolated areas as help is impossible to get on short notice.
- Ability to present information at public and private forums and to participate in scientific discussions with other parties at various working group meetings and technical sessions.
- Ability to continually monitor technical and professional developments in the field, research scientific reference material and apply established engineering techniques in evaluating water use projects.
- Ability to commit to actively upholding and consistently practicing personal diversity, inclusion, and cultural awareness, as well as safety and sensitivity approaches in the workplace.

**Typically, the above qualifications would be attained by:**

Completing a master's degree in environmental science or resource management, with at least two (2) years progressive experience in environmental management, planning and/or program delivery, preferably in an NWT setting with both government and private industry.

Equivalent combinations of education and experience will be considered.

**ADDITIONAL REQUIREMENTS**

**Position Security** (check one)

- No criminal records check required.
- Position of Trust – criminal records check required.
- Highly sensitive position – requires verification of identity and a criminal records check.

**French language** (check one if applicable)



- French required (must identify required level below)

Level required for this Designated Position is:

ORAL EXPRESSION AND COMPREHENSION

Basic (B)  Intermediate (I)  Advanced (A)

READING COMPREHENSION:

Basic (B)  Intermediate (I)  Advanced (A)

WRITING SKILLS:

Basic (B)  Intermediate (I)  Advanced (A)

- French preferred

**Indigenous language:** Select language

- Required
- Preferred