



## IDENTIFICATION

Department	Position Title	
Environment and Climate Change	Senior Climate Change Scientist	
Position Number	Community	Division/Region
23-16454	Yellowknife	Climate Change, Cumulative Impacts and Knowledge/ HQ

## PURPOSE OF THE POSITION

The Senior Climate Change Scientist (Senior Scientist) is responsible for ensuring knowledge of climate, climate change science, and climate impacts are available to inform decision making in the Northwest Territories (NWT).

## SCOPE

Located in Yellowknife and reporting to the Manager, Climate Change (Manager), the Senior Climate Change Scientist leads and manages a team of staff, contractors, and working groups to develop, implement and coordinate territorial strategies, policies, programs and projects that support climate change and climate knowledge goals and objectives. The Senior Scientist is considered the Government of Northwest Territories (GNWT) technical authority on climate and climate change science.

The Department of Environment and Climate Change (ECC) works to promote and support the sustainable use and development of natural resources and to protect, conserve and enhance the Northwest Territories (NWT) environment for the social and economic benefit of all residents.

The Climate Change, Cumulative Impacts and Knowledge Division (Division) coordinates climate change action for the Government of Northwest Territories, leads the implementation of the government's Knowledge Agenda, and fulfills ECC's regulatory obligation to monitor and report on cumulative environmental impacts.

The Senior Scientist leads developing, implementing and assessing the Climate and Climate Change Knowledge Framework (Framework). The Framework outlines a plan to address climate change related information, data, and research needs to inform NWT climate change decision making. The Framework is guided by the 2030 NWT Climate Change Strategic Framework (CCSF) and its corresponding Action Plan (Action Plan) as well as the Knowledge Agenda: Northern Research for Northern Priorities.

The Senior Scientist is responsible for leading the coordination, development and implementation of resources and activities for acquiring, analyzing and sharing climate and climate change data and research. The Senior Scientist will be responsible for managing a team which will undertake the following: inform NWT climate data network planning, inventory and enhance climate and climate change data and data products to inform climate change; provide climate change technical advice on regulatory processes such as environmental impact assessments; research, climate projections, indices, indicators and modeling; and improve the awareness and accessibility of climate change knowledge, research, information, results and products. The position provides technical expertise in climate monitoring, modeling, analysis and interpretation of climate data for the NWT to better inform decision making and policy.

This position manages, facilitates, leads, guides, and supports:

- The establishment, implementation, maintenance and promotion of climate and climate change information management systems.
- Analysis of climate data and modeling.
- The generation and determination of climate and climate change trends, indices and indicators.
- Tracking and synthesizing information on climate change impacts and research.
- The use of scientific and methodological expertise to manage the implementation of community, regional, and infrastructure hazard mapping and risk assessments.
- Coordination and enhancement of climate monitoring programs and the NWT climate monitoring network
- Territorial and corporate greenhouse gas emission tracking and reporting.
- The dissemination of climate and climate change knowledge and information to decision makers at all levels.

The Senior Scientist maintains qualifications in professional, technical and administrative areas by attending and completing seminars, training and other professional development opportunities as assigned and keeps up to date on advances in climate and climate change science including:

- Climate monitoring and quality control of climate data,
- Technological (infrastructure and green infrastructure) adaptation measures,
- Climate change decision making processes and protocols,
- Climate modelling and future climate projections and Intergovernmental Panel on Climate Change Scientific Assessments,
- Sources and sinks of carbon in the NWT,
- Best practices and technologies for climate change hazard mapping.

The Senior Scientist ensures that climate knowledge work is undertaken collaboratively by coordinating, engaging and building partnerships with internal (e.g., GNWT departments and ECC divisions) and external partners and stakeholders (e.g., Indigenous, community, territorial, provincial and federal governments, industry, environmental and non-government

organizations, academia and the public).

The Government of Northwest Territories approaches to climate change initiatives are subject to public scrutiny and comments from other parties and are frequently politically charged. The Senior Scientist supports the Department by providing decision-makers with the information required to make sound decisions. This includes briefing Senior Management, the Minister, Ministerial Committees, Standing Committees and Executive Council on climate change. The Senior Scientist provides advice on GNWT interests in pan-territorial, national and international forums on climate and climate change knowledge, while working closely with Indigenous governments and Indigenous organizations, local governments and other partners.

The Senior Scientist frequently represents the GNWT in national, intergovernmental, industry and public forums, ensuring alignment with national objectives, while recognizing local issues.

Work is performed under the general direction of the Manager. The Senior Scientist has a significant amount of latitude provided that the policies, guidelines and interests of the GNWT are complied with. Judgment is required in interactions with partners and stakeholders.

## **RESPONSIBILITIES**

### **1. Provides leadership and oversight in the development, implementation and management of strategies, policies, programs and initiatives related to climate, climate change science, and climate impacts.**

- Provides strategic and expert advice and assistance.
- Reviews, analyzes and evaluates information and documents (i.e., reports, studies, proposals, policies and legislation).
- Provides leadership and works collaboratively with partners and stakeholders to enhance climate change knowledge.
- Responds to inquiries and provides advice.
- Identifies opportunities where traditional knowledge may be used to supplement climate change knowledge.
- Undertakes engagement including with Indigenous Government Organizations and stakeholders to identify climate and climate change knowledge gaps and works with academics, partners and stakeholders to address these needs.
- Provides climate change technical advice on regulatory processes such as environmental impact assessments, including presentations and rebuttals at technical and quasi-judicial hearings.

### **2. Manages the development and coordination of climate and climate change knowledge initiatives, programs for the NWT:**

- Coordinates climate monitoring activities and networks among federal, territorial, industrial, community, and academic partners, ensuring climate monitoring is representative of NWT communities, regions and ecosystems.
- Develops and delivers field and office-based research programs, analyzes and interprets data collected and prepares reports.

- Develops and maintains Information Management Systems to ensure decision makers have access to coordinated, relevant, accurate and current climate data, and climate change information, data and research.
- Develops materials, products and tools, summarizing climate, climate impacts, and climate change information to facilitate knowledge transfer.
- Manages the implementation of climate change hazard mapping to support decision making.
- Provides technical advice to implement regional and site-specific climate change risk assessments.
- Conducts analysis on climate change data, determines climate change trends and develops indices, develops indicators of climate change and prepares reports.
- Supports interdisciplinary climate change research including community-based partnerships.

**3. Provides leadership to develop and support partnerships to enable climate change knowledge priorities.**

- Collaborates with the proposed northern climate services organization and Environment and Climate Change Canada to provide advice, to co-develop climate information products, and to undertake analysis to support decision making.
- Collaborates with Natural Resources Canada on understanding landscape climate change impacts and processes.
- Collaborates with other federal departments undertaking climate change.
- Collaborates with the GNWT Senior Science Advisor, academic partners, and the NWT Cumulative Impacts Monitoring Program.
- Develops and cultivates positive and productive relationships with academic funding councils and associations.
- Sources financial resources from potential funding agencies through partnerships and grants (both core and project funding opportunities).
- Negotiates funding or partnerships with funding agencies.

**4. Cultivates, builds and maintains personal and business relationships with key partners, stakeholders, individuals and associations in Canada and beyond.**

- Represents the GNWT on climate knowledge focused committees with the Canadian Council of Ministers of the Environment, Pan-Territorial meetings, circumpolar organizations, NWT Communities, Indigenous Governments and Organizations and other partners/stakeholders.
- Develops and manages stakeholder relationship plans to ensure that relationships are pro-actively maintained, enhanced and productive.
- Addresses and/or escalates issues that arise, balancing the need for diplomacy and strong relationships with the requirement for meeting stated GNWT objectives.

**5. Manages the human resources, financial and administrative functions of the team to provide effective and efficient services within budgeted frameworks**

- Inform and implement annual work plans that establish short and long-term objectives.

- Manages human resource functions within the team including staffing, direction setting and performance evaluations.
- Oversees contract management, including preparing terms of reference and statements of work to direct contractors.
- Manages the team budget by reviewing, monitoring and maintaining monthly expenditure forms and variance reports.
- Develops objectives and performance indicators for the team including individual staff goals, ensuring they are complimentary to the Division's goals and objectives.
- Provide positive leadership and advice to staff.
- Encourage employee development through performance appraisals, training plans, and professional development opportunities.
- Support objectives of succession planning within the team, unit and the Division.
- Participate as a member of the Section and Divisional teams in planning the short and long-term objectives.

## **WORKING CONDITIONS**

### **Physical Demands**

Physical effort is required to conduct field work for a total of 1-3 weeks a year. This involves travelling over challenging terrain and weather via float planes, helicopters, ATVs, boat, snowmobile or by foot. Considerable physical effort is often required to move heavy equipment, as well as launching and unloading of vehicles, often under extreme weather conditions.

### **Environmental Conditions**

Field work may require travel in small aircraft and driving on winter roads and periodic exposure to adverse weather conditions, biting insects and wildlife. Field work will occur on an as needed basis.

### **Sensory Demands**

The incumbent is subject to long periods of concentrated focus while working with computer programs, reviewing reports and other documents. Alertness is required during field work.

### **Mental Demands**

The incumbent requires tact while dealing with community and non-government organizations and other government agencies. They will be required to present to scientific peers, collaborators, community groups, etc. The incumbent may be periodically required to travel to communities and isolated locations for field work and community meetings.

While in the field, the incumbent is expected to continuously manage scientific and logistical activities to ensure safe work practices and predict and mitigate potentially hazardous situations; manage personality conflicts amongst field staff and manage any potential stress associated with work in isolated areas.

## **KNOWLEDGE, SKILLS AND ABILITIES**

- Knowledge of northern climate change mitigation and adaptation issues, climate change science, climate monitoring, climate models and downscaling.
- Knowledge of financial planning, budgeting and expenditure management.
- Knowledge of Geographic Information Systems (GIS), statistics packages, spreadsheets, databases, presentation and word processing software.
- Knowledge of databases and portals used environmental decision making.
- Knowledge of northern governance, regulatory systems, and indigenous issues.
- Knowledge of federal and territorial climate change programs, research, and approaches.
- Research and analytical skills.
- Project management skills, including experience with project charters, work plans, etc.
- Organizational and time management skills, including the ability to plan, coordinate, prioritize activities, and meet deadlines.
- Communications skills both written and oral, including sharing scientific knowledge and complex processes with non-technical audiences.
- Leadership and interpersonal skills to effectively manage teams and to effectively interact with other levels of government, industry, Indigenous organizations and the public.
- Negotiating and dispute resolution skills to resolve conflicts and differences of opinion.
- Ability to assess and make sound decisions with respect to environmental and climate change issues.
- Ability to speak as a technical expert at public hearings.
- Ability to work effectively both independently and in collaboration with other professionals in a team situation.
- Ability to develop and deliver communications and knowledge transfer products and tools including presentations, digital products such as maps, etc.
- Ability to manage politically sensitive and controversial matters with sensitivity, tact, and diplomacy.
- Ability to think strategically, using experiential judgment as well as the analysis and synthesis of multiple concepts and priorities.
- Ability to take broad direction, setting priorities to maintain strategic initiatives of the unit, coordinating many projects.
- Ability to review work and deliver feedback.
- 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:**

Completion of a graduate or post-graduate degree in climate science or environmental science with a climate focus, with at least four (4) years relevant work experience including two (2) years' supervisory experience, preferably in a climate change area, and/or leading and participating in field-based research programs in a northern setting.

Equivalent combinations of education and experience will be considered.

### **ADDITIONAL REQUIREMENTS**

A valid NWT Class 5 Driver's License (can be obtained post hire)

#### **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