



IDENTIFICATION

Department	Position Title	
Environment and Climate Change	Air Quality Program Manager	
Position Number	Community	Division/Region
23-3435	Yellowknife	Environmental Protection and Waste Management/ HQ

PURPOSE OF THE POSITION

The Air Quality Program Manager is responsible for managing the Government of the Northwest Territories' (GNWT's) Air Quality Program and for leading work related to air quality strategies and programs under the authority of the *Environmental Protection Act* which defines and ensures achievement of the Department's air quality management objectives and protection of air quality in the Northwest Territories (NWT).

SCOPE

Based in Yellowknife and reporting to the Manager, Environmental Protection (Manager), the Air Quality Program Manager is responsible and accountable for developing, implementing, and coordinating air quality management strategies, programs, guidelines, and legislation/regulations throughout the NWT. The position is responsible for overseeing and managing the efficient operation of monitoring networks run by the GNWT in cooperation with Environment and Climate Change Canada (ECCC). The position ensures the collection of high-quality data at capture rates in accordance with national standards and binding agreements for the application in air quality policy making, commitments to multiple federal programs, and use by industry, researchers and the public. The position is also responsible for leading the implementation of Canada's collaborative Air Quality Management System in the NWT. The position supervises the Air Quality Monitoring Specialist (Specialist) and hires contractors and casuals to assist with air quality work. The position oversees a monitoring network with a capital value of over one million dollars and is responsible for managing the operations and maintenance budget as well as capital funds for the Air Quality Program.

The Department of Environment and Climate Change (ECC) is mandated to promote and support the sustainable use and development of natural resources and to protect, conserve and enhance the NWT environment for the social and economic benefit of all NWT residents. Natural resources include both renewable and non-renewable resources. To achieve this



mandate, ECC promotes sustainable development of renewable resources in a diverse environment, and the sustainable use and conscientious protection of NWT land, water, and resources, as they are integral to the economic, cultural and social fabric of life in the NWT. ECC is committed to ensuring an inheritance of a healthy environment for future generations and works to balance traditional lifestyles with a modern economy.

The Department promotes management that recognizes the interconnectedness of activities. Collaboration, coordination, cooperation and communication are expected to occur at all levels in the organization. The Department is committed to working in partnership with other GNWT departments to achieve government-wide objectives.

Under the mandate of the *NWT Environmental Protection Act* (EPA), the Environmental Protection Section (Section) provides advice and assistance to departmental field staff, other departments, outside agencies, industry and the public and has a direct effect on the department and government's ability to deliver effective environmental protection programs and maintain its credibility. The section is also the lead for developing environmental protection guidelines. Program delivery has a direct impact on the use of public and industry resources.

The Air Quality Program is one of the programs within the Environment Protection Section and its purpose is to ensure that air quality is consistently monitored and reported to reduce risk to people and the environment. The Air Quality Program operates five monitoring stations located in Yellowknife, Inuvik, Fort Smith, Fort Simpson, and Norman Wells, in partnership with ECCC under the National Air Pollution Surveillance (NAPS) program - a joint federal, provincial and territorial monitoring network. Each station is equipped with state-of-the-art instruments that continuously monitor various air quality parameters and meteorological conditions. The data collected undergoes stringent quality assurance and quality control protocols and must meet a minimum data completeness criterion of 75% to ensure efficient instrument operation, timely repairs, and limit data loss. If these criteria are not met, the data is considered invalid and non-reportable. Collected data is used to provide real-time air quality information and Air Quality Health Index (AQHI) to the public as well as to publish annual air quality reports. Additionally, the Air Quality Program participates in the Canadian Air and Precipitation Monitoring (CAPMoN) program with two stations in the NWT - one at the Wood Buffalo National Park and another at the Snare Rapids hydro facility. Moreover, the Air Quality Program runs a third network of small air quality sensors in collaboration with ECCC. There are over 40 sensors across the NWT that fill gap in data in communities that do not have NAPS monitoring stations. These sensors share real-time air quality information to public through an online map and provide data used by the Department of Health and Social Services (DHSS) and ECCC to issue air quality advisories during smoke events in wildfire season.

The Air Quality Program Manager is required to work concurrently on multiple projects and initiatives of varying sizes and complexity with competing deadlines. The position is



responsible for fostering and maintaining positive stakeholder relationships through working with GNWT Departments, other provincial/territorial departments, federal government departments, Indigenous governments and Indigenous organizations, communities, and academic institutions and regulatory authorities. This position is the GNWT member of Canadian Council of Ministers of the Environment's (CCME) Air Management Committee (AMC).

The Air Quality Program Manager is the primary air quality technical expert in the department and works with other specialists in the Division and Department to provide effective and timely technical review of development proposals and development operations, including presentations and rebuttals at technical and quasi-judicial hearings. The incumbent frequently represents the Department in national, intergovernmental, industry and public forums, ensuring alignment with national objectives, while recognizing local issues. The Air Quality Program Manager is appointed as an Inspector pursuant to the EPA and provides expert scientific and technical advice and assistance to a wide variety of stakeholders including all levels of government, Indigenous governments and Indigenous organizations, industry and the public.

RESPONSIBILITIES

1. Plans, designs, coordinates, implements and evaluates air quality management strategies and programs to achieve the Department's air quality management objectives and protection of air quality in the NWT.

- Identifies and prioritizes air pollution issues and their potential impacts on air quality in the NWT.
- Recommends, develops, and executes the Department's air quality strategy and programs, including legislative and regulatory development, in accordance with departmental priorities.
- Designs, implements, manages and evaluates regulatory and monitoring programs for the protection and enhancement of air quality within the NWT.
- Reviews and analyzes environmental assessments, licenses and permits, plans, proposals and studies submitted by proponents and consultants regarding construction and operation of facilities which emit air pollutants and makes recommendations to ensure compliance with territorial air quality objectives, applicable air quality standards, and best environmental and operating practices.
- Prepares, presents, and defends analyses at quasi-judicial hearings held by land and water boards and environmental assessment boards, following consultation with legal counsel and other ECC divisions, and audits operational air quality management plans to satisfy GNWT regulatory commitments.
- Leads the drafting of regulations, drafts standards, guidelines and codes of practice regarding air quality for adoption under the *Environmental Protection Act*.
- Prepares reports, letters and other executive documents (option papers, decision papers, Ministerial briefing notes) to support new legislative and policies related to air quality.



- Co-ordinates the Department's air quality management strategies and programs with federal government programs (e.g., Canadian Council of Ministers of the Environment (CCME) process for development and review of Canadian Ambient Air Quality Standards; CCME's Air Quality Management System) to ensure GNWT programs meet national standards. Leads the implementation of the CCME's air quality initiatives (e.g., Air Quality Management System) in the NWT.
- Provides expert, scientific and technical advice and recommendations to representatives of the Department, development proponents, municipal, territorial and federal agencies, Indigenous governments and Indigenous organizations and the public to resolve problems regarding air quality management.
- Represents the GNWT on interdepartmental and intergovernmental committees and working groups (e.g., CCME's Air Management Committee and working groups; Environment and Climate Change Canada's committees and working groups) ensuring northern air quality concerns and priorities are reflected in GNWT, national and international programs and initiatives.

2. Oversees and manages the development and implementation of programs to monitor ambient air quality and point-source air pollution problems in the Northwest Territories to provide information for assessment, reporting, and research.

- Manages the efficient operation of the GNWT's air quality monitoring network, including its data acquisition system, database, and website to ensure valid and timely data collection in compliance with national operational and QA/QC standards.
- Oversees and manages the delivery, maintenance and enhancement of sensor-based air quality monitoring (e.g. Purple Air sensors) across the NWT in partnership with federal, territorial and community stakeholders to provide real-time air quality information at the community level.
- Co-ordinates the implementation and operation of other cooperative air quality monitoring systems and networks (e.g., Canadian Air and Precipitation Monitoring Network, National Air Pollution Surveillance Network) with federal, territorial and other parties to maintain and create partnerships, ensure efficient use of resources and avoid duplication of activities.
- Evaluates and, where necessary, recommends and implements changes to the design, operation and maintenance of the air quality monitoring programs to ensure continuing effectiveness and efficient use of resources.
- Plans and produces annual work plans and submits proposals internally or to partner programs for capital funding and network modifications.
- Conducts, reviews and approves statistical analysis of air quality data collected through the monitoring programs for trend analysis and reporting including annual air quality reports for the GNWT Air Monitoring Network, and other data publications.
- Prepares, reviews and approves reports for senior management and the public.
- Develops, executes and manages contracts and contractors for outsourced technical



requirements to satisfy goals and objectives of the air quality program.

3. Promotes high standards of air quality in the North to maintain and raise awareness of air quality issues.

- Designs and coordinates education and awareness programs; prepares communication strategies and public information materials; participates in public meetings; liaises with the media and special interest groups (e.g., Ecology North, Greenpeace, Canadian Environmental Network).
- Co-ordinates the provision of information on air quality management and monitoring initiatives and programs with other divisions, departments, governments, Indigenous organizations, industry and the public.
- Identifies and delivers public education courses and seminars on air quality management and issues.
- Advises on potential environmental risks and provides mitigation recommendations.
- Initiates meetings, conferences and workshops to advance co-ordination of departmental activities including initiatives related to air quality monitoring in the NWT.
- Represents the GNWT at forums, meetings and other public venues.

4. Supervises Air Quality Monitoring Specialist and Air Quality contractors and casuals, and manages the budget for the Air Quality Program to contribute to overall fiscal stability for ECC and GNWT.

- Supervises, guides and supports the day-to-day performance of the Air Quality staff and contractors.
- Prepares job descriptions and initiates and completes staff hiring as needed.
- Initiates and completes annual performance evaluations of the Air Quality staff.
- Adjusts workloads and priorities as needed to ensure that the Air Quality team is meeting its mandate and divisional, departmental and GNWT objectives.
- Ensures that they have the training and professional development needed to complete their jobs.
- Provides staff with ongoing and regular feedback including holding regular team meetings and one-on-one meetings when needed.
- Recommends disciplinary actions as required.
- Develops and implements program work plans, goals and objectives.
- Assists in the preparation and planning of air quality program O&M budgets.
- Reviews and updates monthly variance reports for the air quality program for approval.
- Develops and manages the execution of air quality program capital projects.
- Manages the expenditure of approved Air Quality Program budgets and makes adjustments in expenditures as required.
- Oversees and manages capitals asset inventory including scientific instruments, and structures.



5. **Maintains professional qualifications in technical and administrative areas by attending and completing seminars, formal training courses and other professional development opportunities.**

WORKING CONDITIONS

Physical Demands

No unusual demands.

Environmental Conditions

During investigations in industrial sites, there is potential exposure to open excavations, hazardous conditions and unknowns on a monthly basis for 2 to 4 hours. Weather can be inclement.

On project sites, there is exposure to dust, dirt, toxins and chemicals, and fumes. The incumbent will be required to understand and use appropriate personal protective equipment (PPE) to prevent injury or contamination to skin, clothing, eyes and lungs.

Sensory Demands

No unusual sensory demands.

Mental Demands

The position delivers public presentations 3-4 times per year, which can be stressful when discussing new policies, strategies or programs with industry, interest groups or the public, particularly on technical or politically sensitive matters.

KNOWLEDGE, SKILLS AND ABILITIES

- Knowledge of air quality, atmospheric chemistry, assessment and modeling standards and techniques, monitoring and sampling technologies, industrial and sector-specific emissions issues, inventory and abatement strategies and technologies, air quality management practices, and northern air quality issues.
- Understanding of scientific theories and principles related to air quality management.
- Knowledge of environmental review and assessment processes and environmental federal and territorial legislation, regulations and guidelines applicable to the NWT.
- Knowledge and understanding of legislative processes including the preparation or interpretation of legislation, regulations, decision papers and legal interpretations.
- Knowledge of techniques, principles and practices of contract and project management.
- Research and analytical skills, with the ability to assess and make sound decisions with respect to environmental protection issues.
- Leadership and interpersonal skills to effectively manage teams.



- Organizational and time management skills, including the ability to plan, coordinate, and prioritize multiple and divergent activities, and meet deadlines.
- Communications skills (written and oral) and interpersonal skills to effectively interact with other government agencies, industry, municipalities, Indigenous organizations and the public.
- Proficiency in use of word processing, database and spreadsheet programs (e.g. Microsoft Office Suite).
- Ability to build and maintain a good working relationship with colleagues throughout the GNWT, and with partners of other governments and organizations.
- Ability to analyze, evaluate and interpret a wide range of information including legislation, policies, provincial/territorial/federal and departmental initiatives.
- Knowledge of the political, social, economic and cultural context of the North.
- Ability to work both as a team member and independently with minimal supervision.
- Ability to effectively represent the Department and its position accurately and professionally.
- 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 bachelor's degree from an accredited university in environmental science, environmental engineering, or other relevant degree, with at least four (4) years of related experience, one (1) year of which in a supervisory role.

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