



IDENTIFICATION

Department	Position Title	
Environment and Climate Change	Wildlife Biologist - Cumulative Effects	
Position Number	Community	Division/Region
23-11365	Yellowknife	Wildlife Management

PURPOSE OF THE POSITION

The Wildlife Biologist - Cumulative Effects is a senior position and is the Wildlife Division's primary authority and expert on cumulative effects assessments in the Northwest Territories (NWT). The incumbent provides expert advice to senior management, renewable resource co-management boards and regulatory and monitoring agencies on cumulative effects issues related to wildlife and wildlife habitat throughout the NWT and how these impacts can be managed through land use planning, fire management, the environmental assessment and review process, and the use of northern tools like the Protected Areas Strategy.

The incumbent works in collaboration with other Departmental staff, environmental agencies, regulatory agencies, industry, wildlife co-management boards, research centers and communities to develop research and monitoring programs needed to assess, monitor and mitigate the impacts of cumulative effects on wildlife and wildlife habitat throughout the NWT so that wildlife populations remain sustainable.

The incumbent also provides expert advice to other departments within the Government of the Northwest Territories (GNWT) on cumulative effects assessment and is the departmental link to national and international wildlife management organizations and initiatives related to cumulative effects assessment.

SCOPE

The Wildlife Biologist - Cumulative Effects is located in Yellowknife, NWT (headquarters) and reports to the Manager, Wildlife Research and Management.



Using scientific, local and traditional knowledge, the incumbent works collaboratively with regional and headquarters staff, federal and GNWT departments, other environmental agencies, regulatory agencies, industry, wildlife co-management boards, universities, research centers and communities to understand and address the cumulative effects of natural and anthropogenic activities on wildlife and wildlife habitat. Research and monitoring activities lead by the incumbent will be used to identify effective indicator species, methodologies and thresholds for assessing and managing cumulative effects in the NWT.

The incumbent works with other divisions and departments with responsibility for cumulative effects assessment. This includes working collaboratively to manage cumulative effects through land use planning activities, the use of northern tools like the Protected Areas Strategy, mitigation of anthropogenic activities through the environmental assessment and review process and the use of best management practices. The incumbent is also responsible for assessing how climate change will affect the future management of wildlife and wildlife habitat in the NWT.

Advice provided by the incumbent will be used by senior management, renewable resource co-management boards and regulatory and monitoring agencies to make decisions and/or recommendations on how to monitor, manage, and mitigate cumulative effects on wildlife and wildlife habitat in the NWT using tools like land use plans, protected areas strategy, and best management practices. Advice will be used by regulatory agencies in determining whether a development activity will be permitted to proceed and under what terms and conditions. Poor advice could result in development activities proceeding in a way that results in long-term damage to the environment.

The incumbent will ensure a consistent message is communicated to industry and regulators by the GNWT regarding cumulative effects on wildlife and habitat during review of land use permit and license applications.

These activities contribute to the implementation of GNWT Sustainable Development Policy, which recognizes that "environmental conservation is essential or long-term economic prosperity" and the GNWT's goals of an environment that will sustain present and future generations and ensuring responsible stewardship through the NWT land and resource management regime.

The incumbent has an annual budget of \$30,000 but may oversee larger individual projects. The incumbent will supervise casual staff and summer students and administer contracts and contribution agreements.



RESPONSIBILITIES

1. Provide expert advice to senior management by assessing cumulative effects and developing tools to manage impacts of natural and anthropogenic activities on wildlife and wildlife habitat.

- Develop appropriate indicator species, techniques/methods (including sampling protocols, survey designs, and field and modeling approaches), and thresholds for cumulative effects assessment for wildlife and wildlife habitat in the NWT.
- Develop best management practices to minimize cumulative effects of human and natural disturbance on wildlife or wildlife habitat.
- Make recommendations on how to resolve wildlife conservation and management problems related to cumulative effects by planning the initiation, expansion or termination of studies.
- Review scientific literature and maintain professional level of expertise and contacts to keep informed of developments in the field of specialization.
- Review local and traditional knowledge that relates to cumulative effects.
- Attend local, national, and international conferences and meetings as required to present research and monitoring results.
- Write and publish progress reports, briefing materials, file and manuscript reports, and peer-reviewed journal publications.
- Prepare public information on cumulative effects related to wildlife and wildlife habitat.

2. In partnership with headquarters and regional staff, other agencies, research centers, universities, industry, and communities, ensure that approaches to monitoring, management and mitigation of cumulative effects have a sound scientific basis and is technically compatible and comparable across the NWT.

- Participate in cumulative effects assessments within the environmental assessment and review process (i.e., review assessments, attend technical and public hearings, participate in working groups related to cumulative effects assessments, etc.)
- Participate in the development and review of land use plans (e.g., provide technical input, attend workshops, etc.).
- With partners, develop, and if GNWT-led, implement large scale and standardized research and monitoring programs to assess and mitigate cumulative effects on wildlife and wildlife habitat.
- Make recommendations to partners on the evaluation and management of cumulative effects using landscape simulation models, land use planning tools, mitigation techniques for industry like best management practices, and northern tools like the Protected Areas Strategy.
- Make recommendations to partners on the structure and direction of the Cumulative Impacts Monitoring Program (CIMP) and evaluate proposals seeking CIMP funding.



3. Make recommendations to regulatory authorities on wildlife and wildlife habitat research, monitoring and management studies related to cumulative effects assessments to ensure objectives, techniques and interpretation and application of results are sound. Recommendations will affect whether activities are authorized to proceed and what terms and conditions are applied.

- Develop standard terms and conditions for land use permits and applications and/or closure plans to reduce cumulative impacts of anthropogenic and natural activities on wildlife or wildlife habitat.
- Review and make recommendations related to wildlife management and monitoring plans related to cumulative effects assessment.
- Represent the GNWT's position regarding cumulative effects on wildlife and wildlife habitat during the review of license and permit applications and environmental assessment process.
- Liaise with regulatory agencies on projects and issues related to cumulative effects.

4. Provide expert advice on how to assess and minimize the cumulative effects of natural and anthropogenic activities on wildlife and wildlife habitat to other divisions, departments, agencies, monitoring agencies, land and water boards and wildlife co-management boards.

- Review and provide technical input on local and regional board reports and proposals related to-cumulative effects to make sure information is sound and up to date.
- Advise recovery teams for species at risk where major threats relate to cumulative effects (including climate change) or where habitat necessary for the persistence of the species must be maintained.
- Evaluate and interpret results of cumulative effects studies by industry and other agencies and determine the applicability of information, techniques, and practices of such studies to related programs.
- Liaise with land and water boards, renewable resources boards, government agencies, environmental consultants, project proponents and industry representatives on projects and issues related to cumulative effects.
- Represent the Division in intra or intergovernmental meetings, committees, and working groups.

5. Work with headquarters and regional staff (including the GNWT Science Agenda Committee), other agencies, research centers, universities, industry, and communities to develop and implement a collaborative circumpolar research and monitoring program that assesses and addresses the cumulative effects of natural and anthropogenic activities on northern wildlife and wildlife habitat.

- With partners, develop and implement a long term research and monitoring program for the Tundra Ecosystem Research Station (TERS) to evaluate the cumulative impacts of



climate change, anthropogenic activity and natural activities on wildlife and wildlife habitat in the NWT.

- Work with other Northern Research Operators to develop a research agenda and monitoring program that addresses cumulative effects across the circumpolar north and seeks funding for programs conducted at northern research centers.
- Provide technical support for research and monitoring programs conducted at TERS but led by collaborating researchers including agency biologists and university graduate students (e.g., reviewing proposals).
- Build long term capacity for GNWT by developing science-based education programs for youth attending Tundra Science Camp.

6. Administer program activities to provide support to the Director of Wildlife and the Deputy Minister and to ensure financial accountability.

- Develop program and review program deliverables and work plan with Manager, Wildlife Research and Management.
- Manage program budget and expenditures associated with projects and studies associated with this position, including preparing and documenting annual estimates and forecasts for program requirements (e.g., contractors and staff).
- Manage annual expenditures in amounts ranging up to \$100,000.
- Develop and administer contracts and contribution agreements in support of program.
- Seek funding partners where appropriate.
- Interview, select, and supervise permanent or term technician employees, casuals, and summer students.
- Supervise the Overall Manager and On-site Camp Managers of TERS (two seasonal positions).

WORKING CONDITIONS

Physical Demands

The incumbent is subject to physical fatigue caused by long or extended hours during periods of high work volume under critical deadlines.

Environmental Conditions

The incumbent is subject to extended periods of work while seated at a computer. The incumbent will also be required to travel to remote sites and meetings in and out of the territory six to eight times per year for 1-2 weeks each per trip. Work at remote sites includes conducting and participating in field work associated with cumulative effects (e.g., Tundra Ecosystem Research Station), involving possible exposure to hazardous weather conditions, elevated noise levels and travel in light aircraft, boats, four-wheeled drive vehicles, etc.



Sensory Demands

The incumbent is highly involved in the exchange of information (seeing and hearing). There is an ongoing requirement for exacting sensory attention for prolonged periods.

Mental Demands

During the preparation of specific submissions, publications, or presentations or when requested to provide advice on specific issues related to cumulative effects, the incumbent will be subject to noticeable pressures from external deadlines, ensuring accuracy, workload, and dealing with members of the division and department who may not share the incumbent's priorities. Job duties will require working extended hours with a high level of concentration. Job demands will often be stressful, as the incumbent will often be required to provide accurate and robust recommendations to senior managers on short notice.

KNOWLEDGE, SKILLS AND ABILITIES

- Proven experience working with multi-stakeholder groups, industry, universities, other agencies, Aboriginal groups, and other resource users.
- Ability to work independently and without close supervision in a cooperative environment both within the department and external to the department.
- Proven analytical and research skills.
- Knowledge of cumulative effects assessment, integrated landscape management, environmental assessment, land management processes, and mitigation techniques used to minimize impacts of anthropogenic and natural activities on wildlife and wildlife habitat.
- Knowledge of concepts of wildlife population dynamics and wildlife habitat management, including study design, field and quantitative techniques.
- Proven ability to design large scale research and monitoring programs with standardized protocols.
- Demonstrated understanding of the use of modeling tools used in cumulative effects assessment and land use planning (e.g., ALCES, TELSA, SLEDS\$, MarXan). This includes how to parameterize and interpret models and appropriately apply model results.
- Strong writing and editorial skills and excellent command of the English language.
- Proficiency with Microsoft Office, GIS, spreadsheet, and databases programs.
- Strong organizational skills and attention to detail.
- Strong oral communication skills and a proven ability to express ideas.
- Ability to exhibit sound judgment.
- Proven experience supervising and motivating staff.
- Proven ability to estimate program costs and administer budget.
- 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:

The knowledge and skills associated with this position are generally acquired through completion of, at minimum, a M.Sc. in one of the natural science disciplines - biology, wildlife biology, ecology, wildlife management, environmental studies, environmental science or resource management. In addition, a minimum of three years of work experience with multi-stakeholder groups and in cumulative effects assessment, integrated landscape management, environmental assessment, land use management, and/or wildlife habitat management is required. These skills, knowledge, and abilities are required to undertake analytical functions and have technical expertise to fulfill the responsibilities associated with this position.

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