**IDENTIFICATION**

| **Department** | **Position Title** | |
|---|---|---|
| Environment and Climate Change | Wildlife Climate Change Adaptation Ecologist | |
| **Position Number** | **Community** | **Division/Region** |
| 23-16084 | Yellowknife | Wildlife Management |

## PURPOSE OF THE POSITION

The Wildlife Climate Change Adaptation Ecologist acts as the divisional authoritative expert on matters related to climate change and impacts to wildlife and wildlife habitat. The position develops, conducts, and interprets research and management actions related to climate change and wildlife and wildlife habitat in the NWT, and assists with integrating projected climate change impacts into all existing and future wildlife/habitat actions, strategies, and plans. The Wildlife Climate Change Adaptation Ecologist is responsible for planning and conducting monitoring, research, and management with an aim to improving our understanding of and mitigating the effects of climate change on wildlife and habitat. The position provides expert advice related to climate change and ecological/species shifts, as required, to the NWT Pests, Pathogens, and Invasive Species Council and the division. The position is solely responsible for the completion and regular periodic updates of an overall *Wildlife Climate Change Adaptation Plan* for the NWT. The position also provides advice on matters related to climate change, impacts to wildlife/habitat, and related management actions to divisional biologists, managers, senior managers, co-management partners, and other divisions/regions, and acts as the departmental representative on national/international wildlife-related climate change or invasive species organizations and initiatives.

## SCOPE

The Wildlife Climate Change Adaptation Ecologist is located in Yellowknife and reports to the Manager, Research and Management, in the Wildlife and Fish Division.

The Wildlife Climate Change Adaptation Ecologist supervises contract, term, and casual staff (as required), controls an annual O/M budget of approximately $300,000, and may control an annual budget of up to $3,000,000 including partnership funds.

The incumbent independently develops, conducts, and implements monitoring, research, adaptation plans, and management plans related to climate change and wildlife/habitat, including decisions on research methods, ensuring participation of appropriate organizations/individuals (including regional staff, wildlife co-management boards, and Indigenous government organizations), and developing research partnerships outside the GNWT. This effort ensures that the implementation of all wildlife plans/strategies reflects the vulnerability of wildlife/habitat to climate change. Additionally, the incumbent will provide expert advice, as required, to the NWT Pests, Pathogens and Invasive Species Council and the division on matters related to ecosystem changes and species distribution shifts associated with climate change.

Competent decisions related to climate change adaptation are required to ensure data collection is relevant, cost-effective, well-substantiated, and suitable for application in wildlife management decisions. Good decisions are critical to facilitate the effective co-management of wildlife, support habitat conservation, maintain ecosystem functions and services, and preserve the resiliency of wildlife in the NWT.

## RESPONSIBILITIES

1. **Assess and, as possible, manage indirect effects of climate change on important species (e.g., harvested species, species at risk, and keystone, umbrella, indicator, and engineer species). Conduct monitoring to track species and ecosystem components as they adapt or change with climate change, and implement integrated surveillance systems to support predictions of species and ecosystem changes.**
    - Building on the NWT Climate Change Adaptation Strategy and Framework, the GNWT Knowledge Agenda, and the climate change vulnerability assessment, identify priority climate change information/knowledge gaps and provide recommendations on addressing those gaps.
    - Assess indirect effects of climate change on wildlife and ecosystems (such as phenology, behaviour, habitat, food webs, distribution changes, etc.) and conduct monitoring to track species, habitat, and ecosystem components and functions as they change and adapt to climate change.
    - Using established methodology, build and complete the phase 1 (species at risk) and phase 2 (remaining species) wildlife climate change vulnerability assessment.
    - Assess, recommend, and as feasible, implement, methods for managing climate change impacts to wildlife, habitat, and ecosystems.
    - Lead and participate in research and field work related to wildlife, habitat, and ecosystems, and the responses of these systems to climate change.
    - Develop partnerships with other agencies, including co-management boards, governments, universities, industry, and others, to conduct wildlife, habitat, and ecosystem-related climate change research to ensure that conservation and management policies, advice, and recommendations have a sound basis in Indigenous and community knowledge and/or scientific knowledge.
    - Implement integrated surveillance systems to support predictions of species and ecosystem changes.

2. **Provide expert advice to the division and partners to ensure that climate change scenarios and system vulnerabilities are reflected in all wildlife, habitat, and ecosystem plans/strategies produced by the division, and communicate those vulnerabilities and plans/strategies to partners.**
   - Identify emerging issues/challenges in wildlife/habitat climate change adaptation in the NWT and recommend approaches to address them.
   - Consider regulatory amendments (seasons, conditions, and areas) to the Wildlife Act depending on changes in species distribution and other changes (i.e., in response to pressures/risks posed by emerging and potentially invasive species).
   - Plan for the enhanced resiliency of wildlife, habitat, and ecosystems by assessing the impact of climate change on identified management, recovery, and mitigation measures.
   - Provide expert advice to other divisions, outside agencies, and communities on climate change adaptation related to wildlife, habitat, and ecosystems.
   - Meet with co-management boards, Indigenous government organizations, and governments to provide technical briefings as needed.
   - Meet with industry, other governments, academics, consultants and private individuals to discuss issues and proposed studies.

3. **Ensure wildlife, habitat, and ecosystem integrity are maintained, insofar as is possible, by implementing and updating, on an ongoing basis, a *Wildlife Climate Change Adaptation Plan* for the NWT.**
   - Based on work already completed or underway, including, in particular, a Wildlife Climate Change Adaptation Plan for the NWT, organize a cooperative approach to implementation of this adaptation plan, including use of adaptive management approaches, performance indicators, and thresholds for management interventions/actions.
   - Using the adaptation plan as guidance, aid in the development and implementation of all future wildlife, habitat, and ecosystem strategies/plans produced by the division in order to ensure they appropriately consider the impacts of climate change on the species, habitat, ecosystem, and/or management approaches in question.

4. **Provide expert guidance on climate change and associated species/ecosystem shifts to the NWT Pests, Pathogens and Invasive Species Council (the Council), as required.**
   - Provide expert advice on climate change and the current and projected responses of wildlife, habitat, and ecosystems to climate change to the Council, as required.
   - If requested by the Council, assist in the development of strategies to prevent, as well as adapt to, alien and invasive wildlife, fish, marine mammal, arthropod, and plant species.
   - If requested by the Council, help develop public communication and outreach products related to pests, pathogens, and invasive species.

## WORKING CONDITIONS

### Physical Demands

Majority of work takes place in an office environment. Some field work is required, which includes hiking and driving long stretches, loading and unloading vehicles, and boating in outboard boats and canoes.

### Environmental Conditions

Working outside can lead to exposure to extreme temperature, infection from zoonotic diseases (eg. hantavirus), and the danger of physical injury from wildlife.

### Sensory Demands

No unusual demands.

### Mental Demands

Position is regularly required to travel for field sessions and committee work in or outside the NWT, which can disrupt family life. Field session include living in isolated camps with lack of privacy and access to medical facilities.

Public presentations and complex data analysis can cause mental stress.

## KNOWLEDGE, SKILLS AND ABILITIES

- Sound knowledge of wildlife, conservation, ecosystem, and adaptive management, in particular related to climate change effects and wildlife, habitat, and ecosystem responses to climate change.
- Familiarity with climate change/ecosystem/species modelling.
- Ability to communicate knowledge in an understandable manner through written and oral presentations to a wide variety of audiences, to clearly explain and discuss conservation issues.
- Exceptional written and oral communication skills and attention to detail.
- Strong organizational skills and knowledge of office procedures.
- Strong computer processing skills (proficiency in Microsoft Word, Excel and PowerPoint).
- Ability to manage projects, contract/term/casual staff, and budgets.
- Ability to understand, appreciate and act upon cross-cultural differences, especially as they relate to the management of natural resources.
- Ability to work cooperatively and diplomatically with multi-stakeholder groups or resource users.
- Ability to work independently and without close supervision in a co-operative

environment both within the department and external to the department.
- 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:**

A graduate degree (MSc) or higher in a natural science discipline like biology, wildlife management, environmental studies, environmental sciences, or resource management, supplemented with four years of experience directly related to the job duties and knowledge required.

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