

# CLEAN RESOURCES

ENVIRONMENTAL INNOVATION

LAND AND BIODIVERSITY

## FUNDING DETAILS

### Alberta Biodiversity Conservation (ABC) Chair Program, Phase 2

The ABC Chair program, Phase 2 consists of a 5-year plan to address a set of complementary themes related to biodiversity conservation and management in the oil sands region of Alberta. Research will focus on: (1) songbirds and bats via acoustic assessments; (2) wildlife (caribou) and its habitat; and (3) plant responses (phenology, fitness and structure) to in situ oil sands; as well as (4) an overall risk assessment for terrestrial biodiversity to landscape and climate change.

A number of elements will examine the synergistic effects of footprints and climate. This is important as it helps guide what is feasible for long-term conservation and restoration in the oil sands region in the presence of climate change and thereby assist with planning, mitigation, and restoration activities.



## ALBERTA BIODIVERSITY CONSERVATION PROGRAM



**RECIPIENT:**  
**Dr. Scott Nielsen,**  
**University of**  
**Alberta**



**PARTNERS:**  
**COSIA, NSERC**



**TOTAL BUDGET:**  
**\$3,250,000**



**AI FUNDING:**  
**\$500,000**



**PROJECT DATES:**  
**MAY 2022 –**  
**APR 2027**



**PROJECT TRL:**  
**Start: NA**  
**End: N/A**

### APPLICATION

The project will continue advancement of scientific knowledge and tools for managing impacts of oil sands development on the natural environment. Studies will focus on bird, bat and plant taxa and populations of threatened species that are of special concern to the province.

# ALBERTA INNOVATES CLEAN RESOURCES

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### LAND AND BIODIVERSITY

## PROJECT GOALS

- Improve environmental outcomes in the oil sands region by advancing scientific understanding of biodiversity responses to development, land management (e.g. restoration) and a changing climate.
- Further the development and application of environmental monitoring and planning tools (e.g. models and geospatial web interfaces) in support of this objective from the oil sands lease to regional scales.
- Create a Resist-Accept-Direct (RAD) framework for the region where the decision-making process weighs trade-offs among resisting ecological changes, accepting change without intervention, or attempting to direct change to some desired future conditions
- Disseminate results to the scientific community, government, regional stakeholders and broader public.

## BENEFITS TO ALBERTA

- The project will train 39 graduate and undergraduate students and post-docs, many of whom will be candidates for future employment in the oil sands industry, academia and government.
- Knowledge generated will lead to improved environmental outcomes through informed policies and regulatory decision-making. This will in turn support valued land uses, including recreation (e.g. hunting, fishing, etc.) and traditional practices of indigenous communities.
- The work will facilitate coordination of environmental efforts and management between academia, government, and industry.



28 Papers



3 Policies



39 Students, Post-docs  
and Technicians  
Trained

## CURRENT STATUS

**MAR 2023**

The project was initiated in May 2022 and activities are underway, including student recruitment, model development and field studies.