

# Ring of Fire Regional Assessment Working Group

**ECCC's Mandate, Expertise and  
Programs and Initiatives**

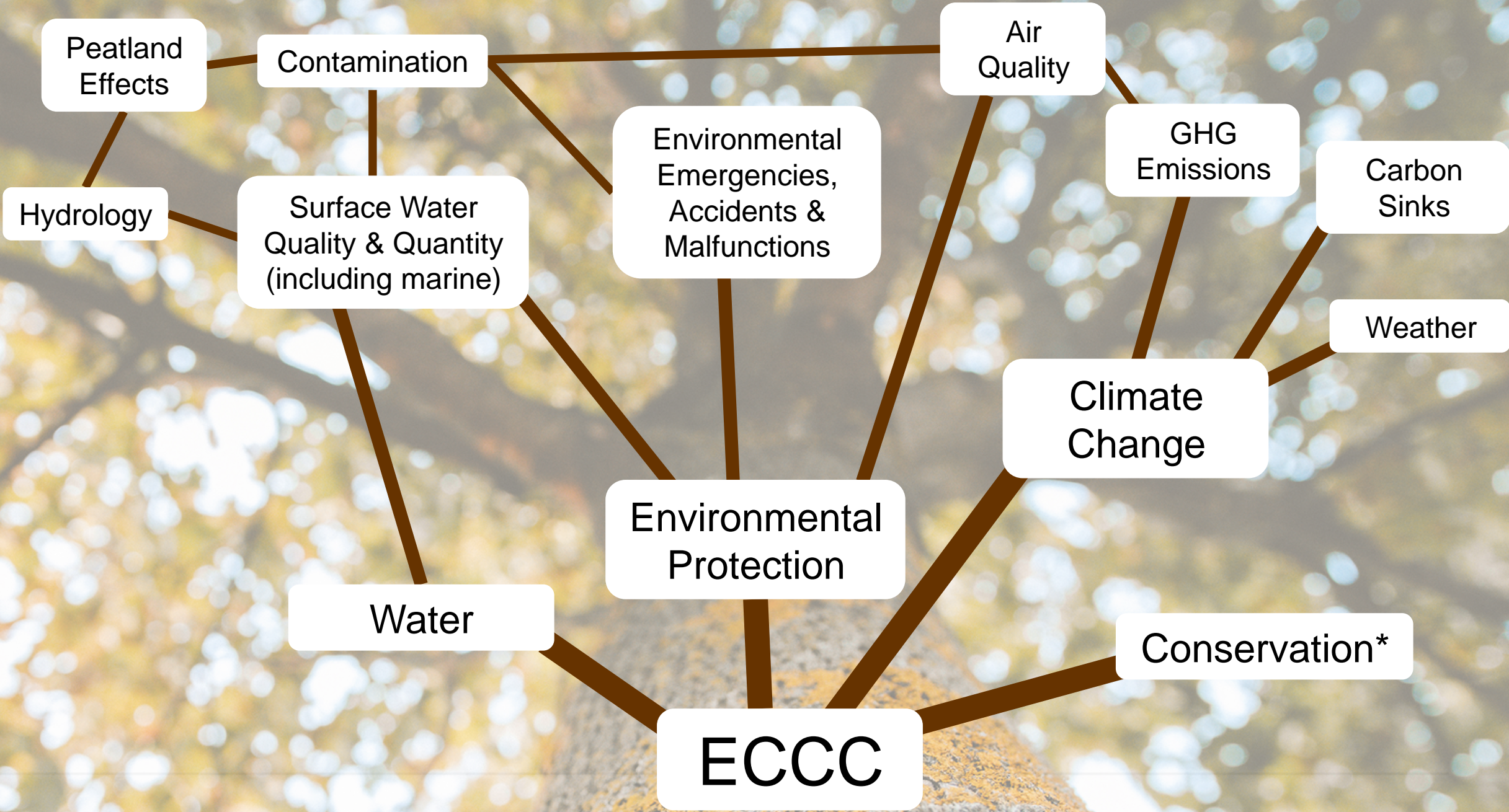
**June 4, 2025**



# Introduction to ECCC

- Lead federal department for a wide range of environmental issues
- Protecting and conserving our natural heritage and environment
- Predicting weather and environmental conditions
- Preventing and managing pollution to water, air, and soil
- Promoting clean growth and ensuring a clean, safe, and sustainable environment for present and future generations
- Provide science-based environmental information and services for informed decision making

ECCC Photo on the shared territory of the Anishinaabe, Cree, and Oji-Cree Nations



**ECCC**

**Water**

**Environmental Protection**

**Climate Change**

**Conservation\***

**Surface Water Quality & Quantity (including marine)**

**Environmental Emergencies, Accidents & Malfunctions**

**Climate Change**

**Air Quality**

**GHG Emissions**

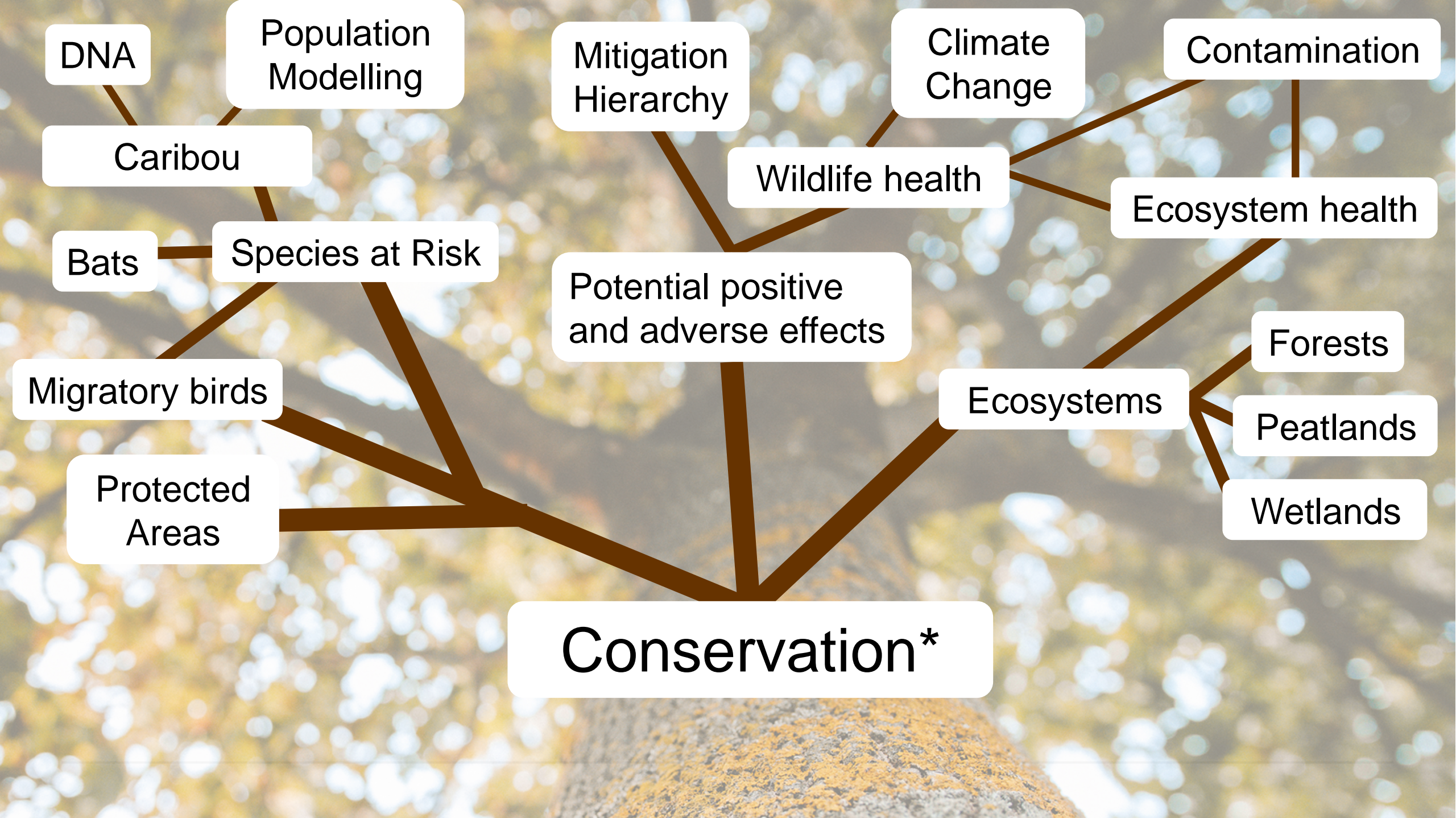
**Carbon Sinks**

**Weather**

**Contamination**

**Hydrology**

**Peatland Effects**



**Conservation\***

**Species at Risk**

**DNA**

**Population Modelling**

**Caribou**

**Bats**

**Migratory birds**

**Protected Areas**

**Potential positive and adverse effects**

**Wildlife health**

**Mitigation Hierarchy**

**Climate Change**

**Ecosystem health**

**Contamination**

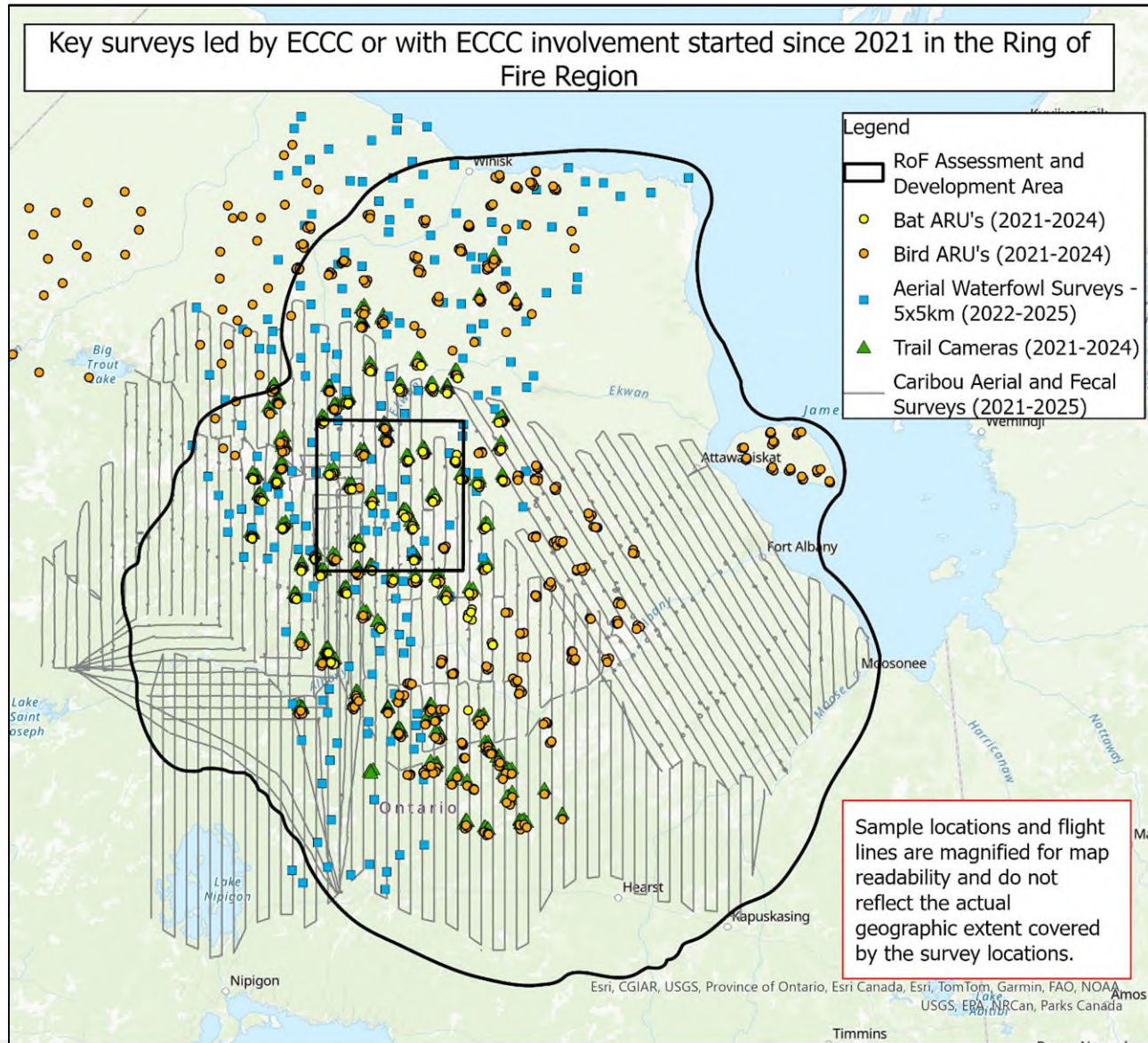
**Ecosystems**

**Forests**

**Peatlands**

**Wetlands**

# Recent wildlife surveys in the ROF Area



## Audio recording (ARU) and trail camera surveys



## Aerial surveys



## Information Collected

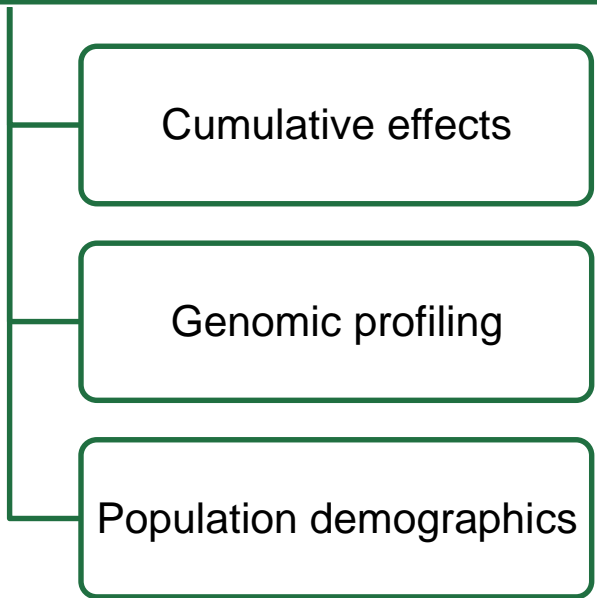
- What species are present and how abundant are they?
- Where are they?
- What habitats are they using?

## Collaboration with Indigenous communities and organizations

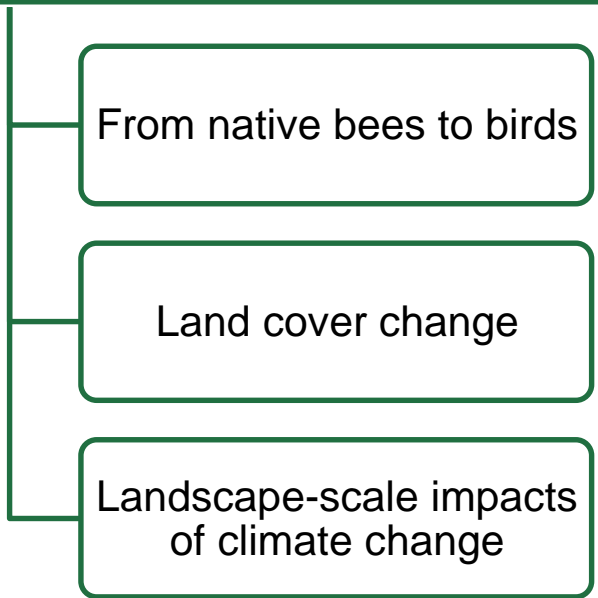
- Providing funding and technical expertise
- Data and results sharing
- Opportunities for further involvement

# Wildlife & Landscape Projects in the ROF Area

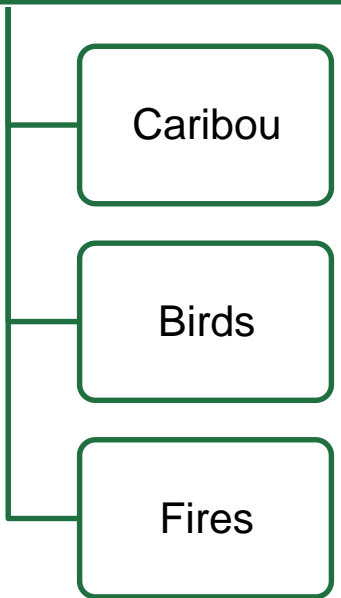
## Genomics-based caribou monitoring



## Integrating microclimate to improve predictions of species distributions



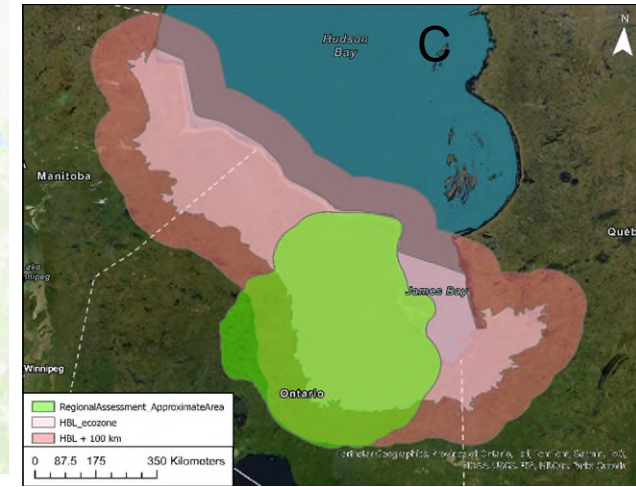
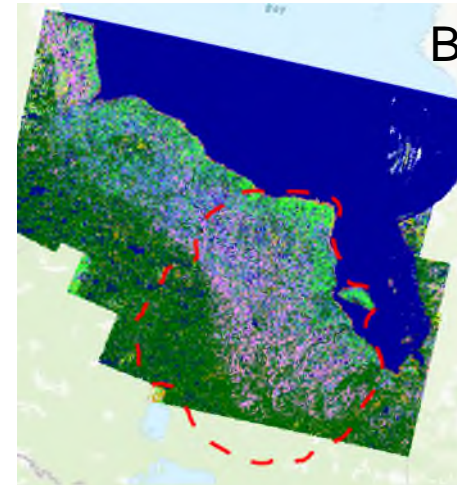
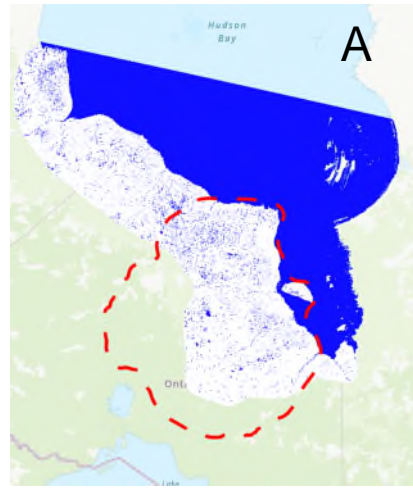
## Cumulative effects of development scenarios and natural disturbance



# Current Work & Datasets - Hudson Bay Lowlands - ROF Area

## Thematic Products

- A. Dynamic Surface Water Product (1985-2021)
- B. Ecosystems
- C. Peatland Carbon & Soil Depth
- D. Biodiversity data



## Data and Imagery

- Satellite - high resolution
- Field Data
  - Variety of field, helicopter & interpreted data from 1976 to present



# Additional Highlights

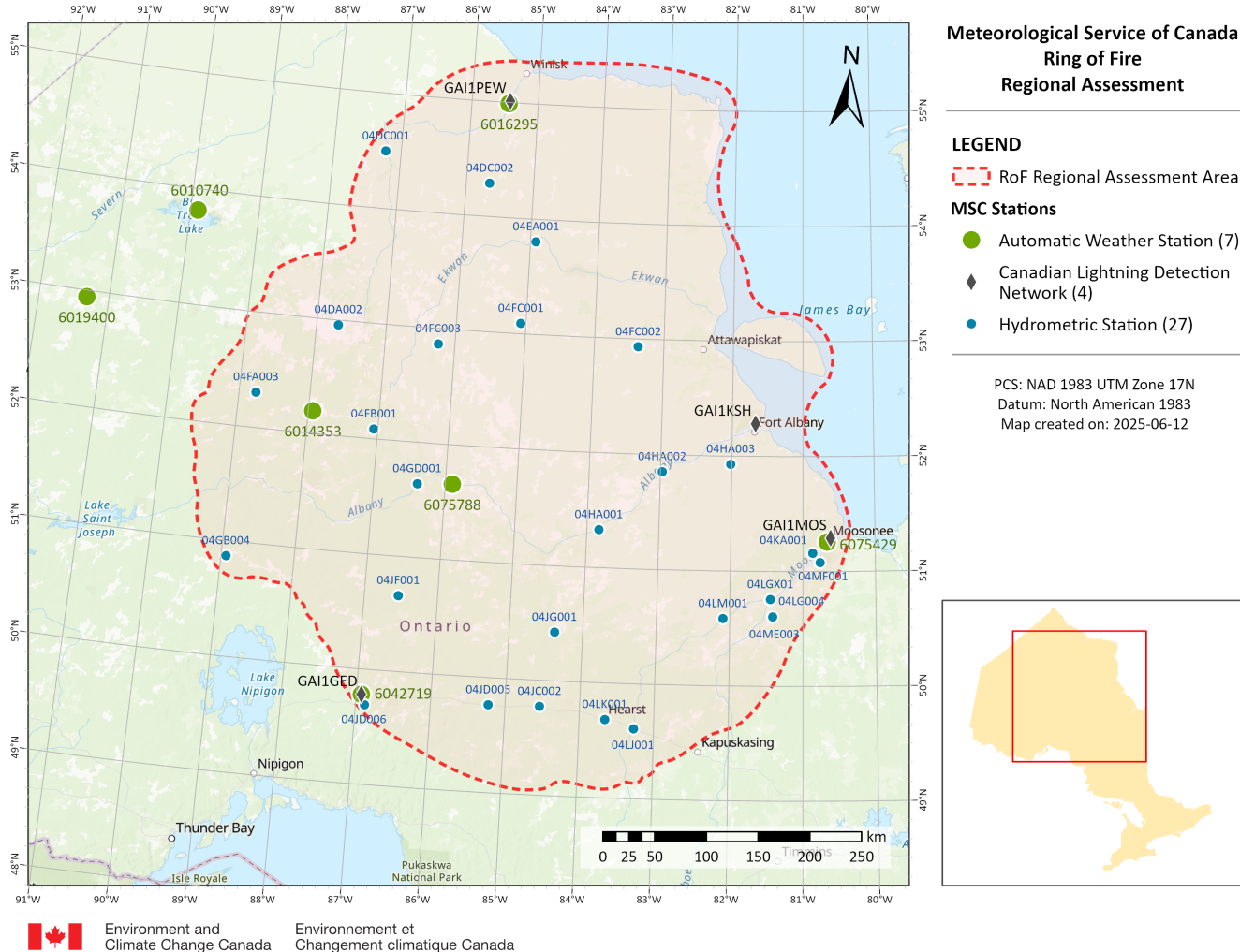
- Over 40 datasets available on wildlife, air, water, and climate
  - Available on the Open Science Data Platform
- ECCC funded >50 projects with Indigenous organizations in the ROF Area since 2007
  - Since 2020, provided >\$1.5 million in funding for biodiversity surveys and other related activities

- Can continue to provide updates on ongoing work & future funding opportunities as they arise

**Questions?**

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**Indigenous Consultation &  
Engagement Coordinator  
ROF Lead, ECCC**

# Other ECCC Data Collection in the ROF Area - Meteorological Data Collection



- Automatic weather stations:
  - Air temperature,
  - Humidity,
  - Precipitation data,
  - Air pressure,
  - Wind speed and direction
- Hydrometric stations:
  - Water level and discharge data
- Lightning detection