



# Today's Agenda:

- 1. Intro to the Beaver Hills Watershed  
and the Beaver Hills Watershed Stewardship Society (BHWSS)**
- 2. Plight of the mainbody lakes in the moraine**
- 3. BHWSS Community Science opportunities**
- 4. Next steps**
- 5. Questions & Open Discussion**

## **Beaver Hills Watershed Stewardship Society (BHWSS)**

is grassroots organization dedicated to the protection, enhancement, and restoration of freshwater ecosystems in the Beaver Hills.

### **Our Mission:**

**Educate, Advocate and Collaborate  
with Stakeholders on Initiatives that  
Help Conserve and Restore Watershed  
Health in the Beaver Hills.**

### **Our Vision:**

**A Healthy and Thriving Beaver Hills  
Watershed for Present and Future  
Generations.**



# Our Story

- Our first community meeting was on **February 2023**, after years of research on local lakes by Mike Boyd and Ken Quackenbush.
- The society was made official in **July 2023**.
- Membership is 200 people, primarily from the Beaver Hills area. Focus so far has been on engagement.



*Maggie's Hill | photo: The Beaver Hills Biosphere*





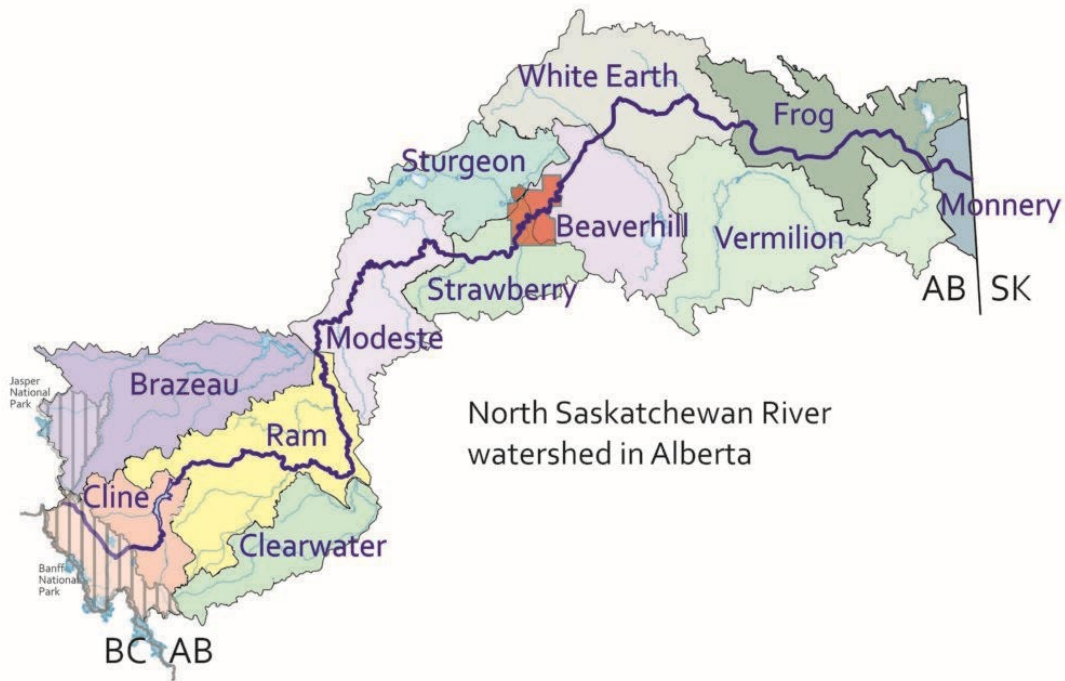
*Cooking Lake (central staging area) | photo: The Beaver Hills Biosphere*

## Major Watersheds of Alberta



*adapted from Wetlands: Webbed Feet Not Required  
Government of Alberta 2011*

# The North Saskatchewan River Watershed

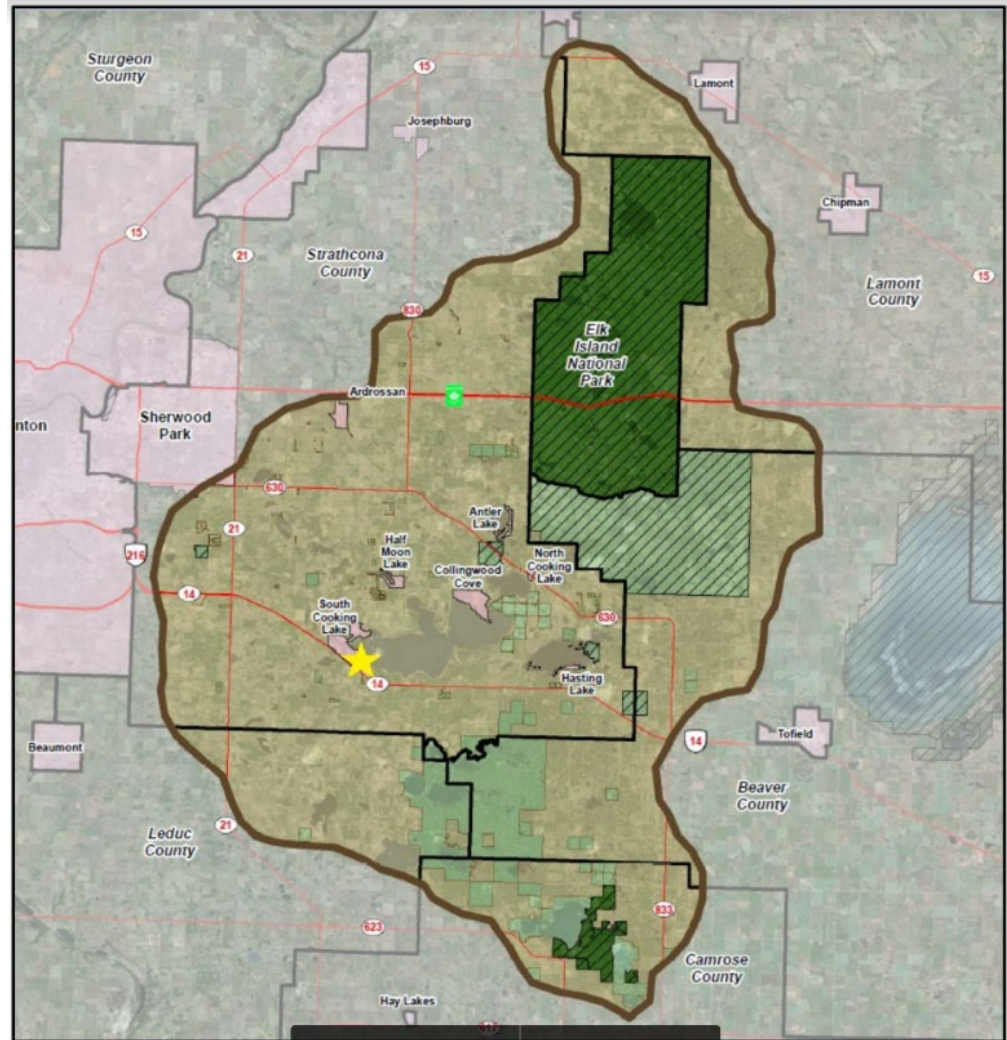






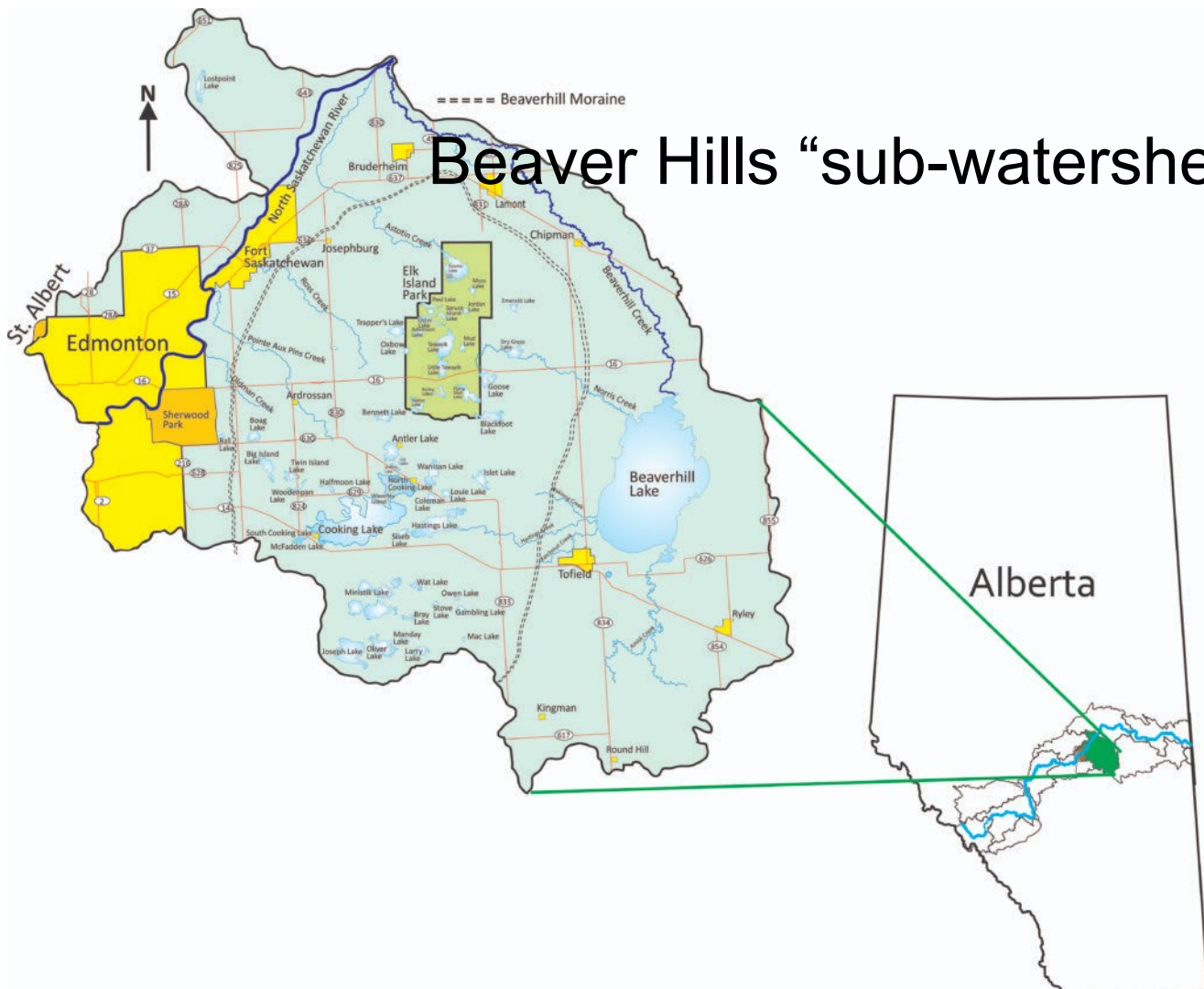
# Beaver Hills BIOSPHERE

UNESCO designation  
in 2016



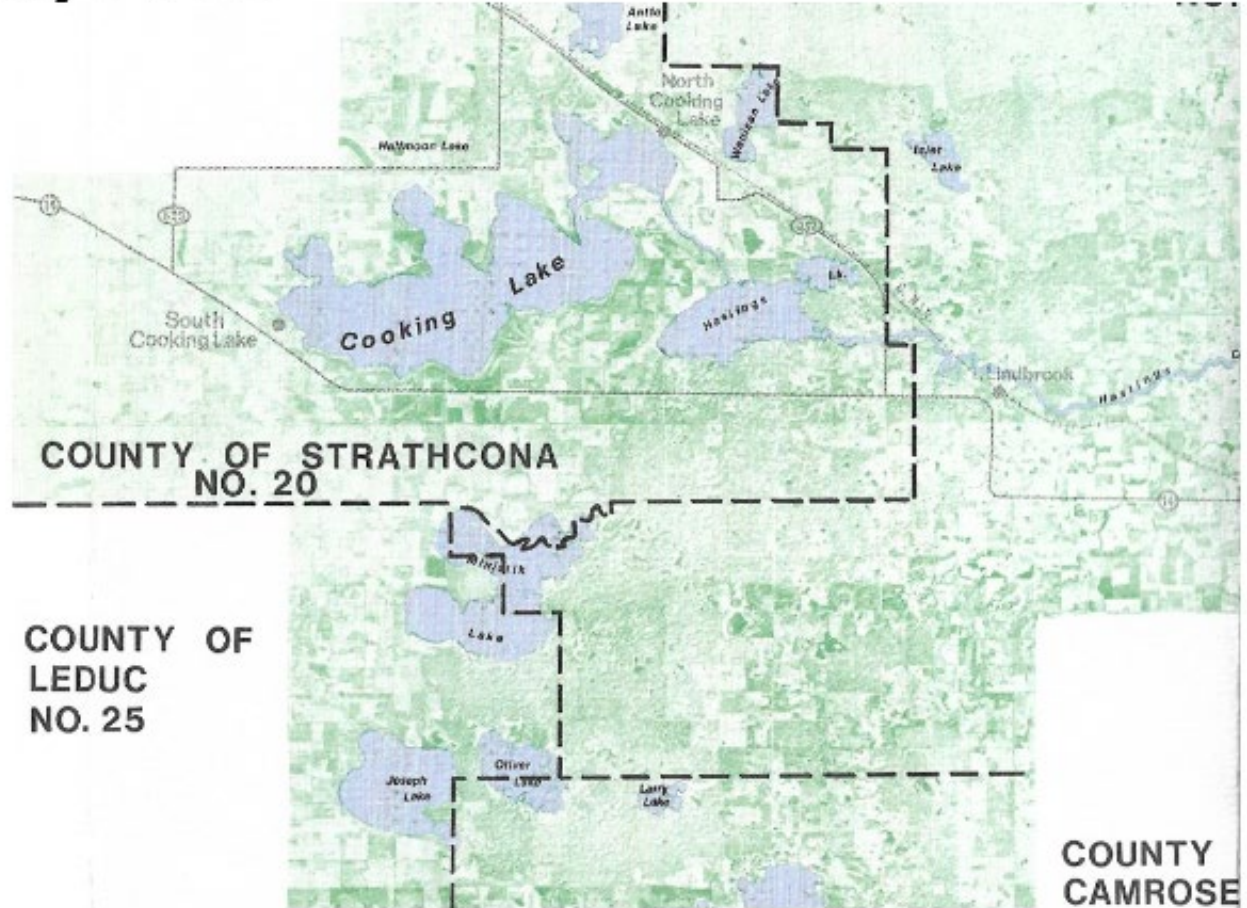


# Beaver Hills “sub-watershed”



# Study Area

Our initial focus is on the **four major lakes within Strathcona County** (Cooking Lake, Hastings Lake, Half Moon Lake, Ministic Lake), then work towards corrective action within the larger Beaverhill watershed.



# South Cooking Lake

Viewed from SCL Park looking east

Elevation 733.630m (flow to Hastings + 3.6m)





# Hastings Lake at Kawtikh boat launch

Elevation 733.64m (outfall to Hastings creek +1.8m)







# Goals and Initiatives:

- **Promoting Watershed Stewardship** (private and public)
  - Public Education and Awareness
  - “Best Practices”, Shoreline Cleanups, etc.
- **Advocate for Policy Improvements**
- **Collaborate on Projects** that conserve, enhance, and restore Wetlands, Lakes, and other Aquatic Ecosystems (including “species at risk”!)
- **Conduct Research: *understanding the watershed context***
  - Community-based Citizen Science
    - Historical waterways and hydrology
    - Water level and water quality monitoring

# Next Steps

- Mapping the rate of change
- eDNA for species at risk
- Collaborate with similarly focused organizations
- Advocate at the County and Provincial level

# The Changing Landscape

- Changes are directly related to human activity
- Decline in the large-body lakes is the most obvious impact. We have lost 3 of 6 in the Beaver Hills (excluding Beaverhill Lake)
- Loss of wetlands is measurable but more challenging to evaluate in terms of overall health of the ecosystem
- Project to develop a map that shows the watershed as it was in 1920's and in 2020's as an educational tool



# Species at Risk

- We have members of our group who are very interested in studying species at risk in the Beaver Hills. They are well connected with COSEWIC and funding is available.
- The Western Tiger Salamander is of special interest.
- These indicator species also bring interest and public attention



# Multiple Organizations and Special Interests

- There are many organizations, some government and many not, but all with a shared concern for the future of this unique place.
- It is necessary to link a common voice and unified message that Policy Makers can act on.

# Provincial and Municipal Priorities

- Will the loss of an entire sub-basin make it onto an environmental priority list?
- What is required of us to advance a proposal that AENV could support?