

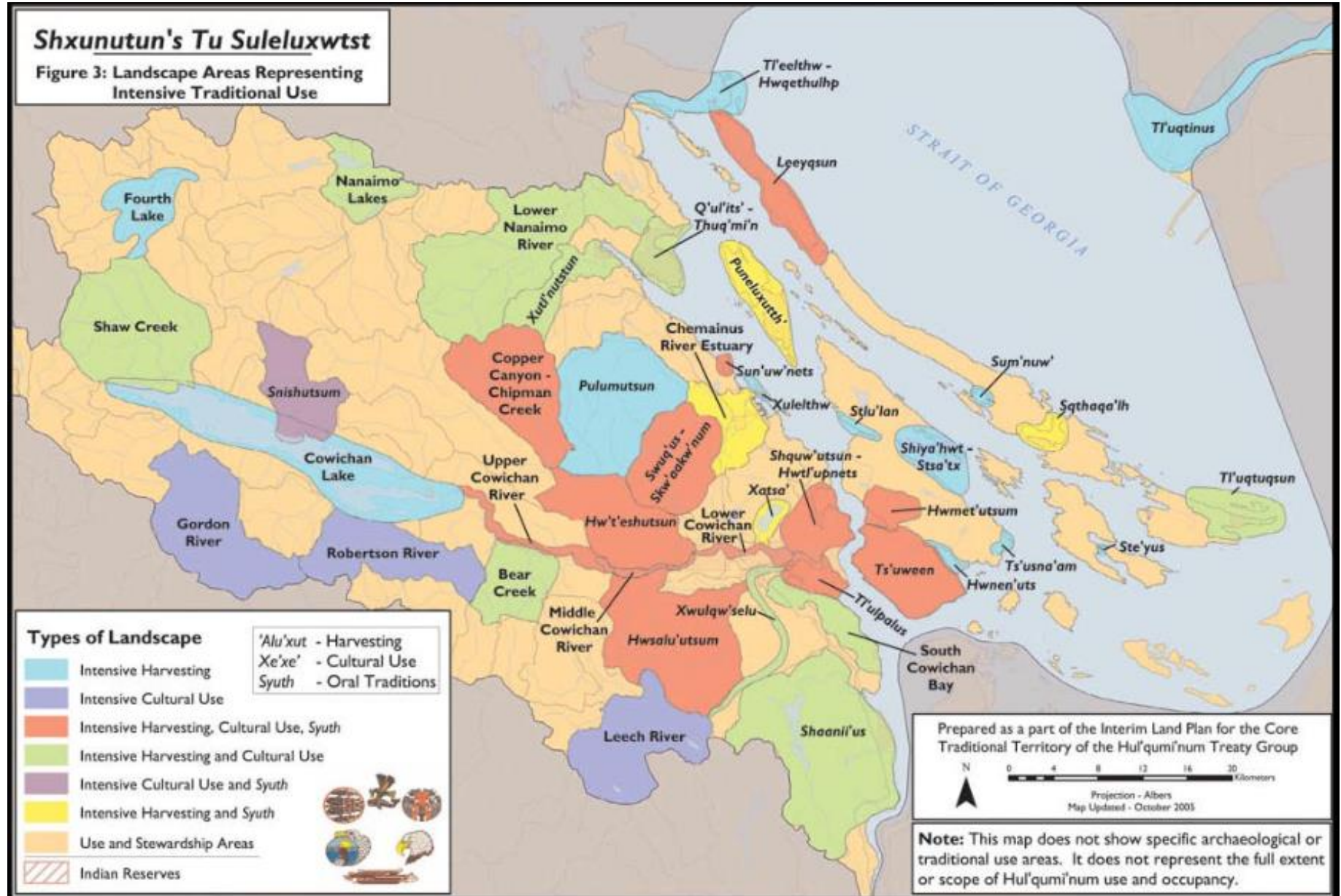


Koksilah Ecosystem-Based Assessment : Ecological Character & Condition

Presentation to
Cowichan Watershed Board
July 29, 2019

Emily Doyle-Yamaguchi, FIT
Heather Pritchard, RPF

Quw'utsun' Traditional Territory





Water levels in the Koksilah River dropped to a critical point last summer. (Citizen file)

Guest column: The Koksilah River is a canary in the coal mine

River flows dropped so low officials preparing to issue Critical Environmental Flow Protection Order

Sep. 25, 2018 3:02 p.m. / [COLUMNISTS](#) / [OPINION](#)

Who commissioned this watershed assessment and why?

- Community-driven
- ***Water concerns***
- Led by Cowichan Station Area Association
- Local government land use planning
- Information for community

Financially supported by:

- Real Estate Foundation of BC
- Shawnigan Basin Society
- CVRD Area Director contributions: B, E, D, C
- Sidney Anglers
- HUB Film Club
- Private donors

Character



Carving of the Cowichan ancestor Syalutsa by Stzuminus artist John Marston, a student of Simon Charlie.



Quw'utsun' canoes near Sh-hwuykwselu Busy Place Creek



Character

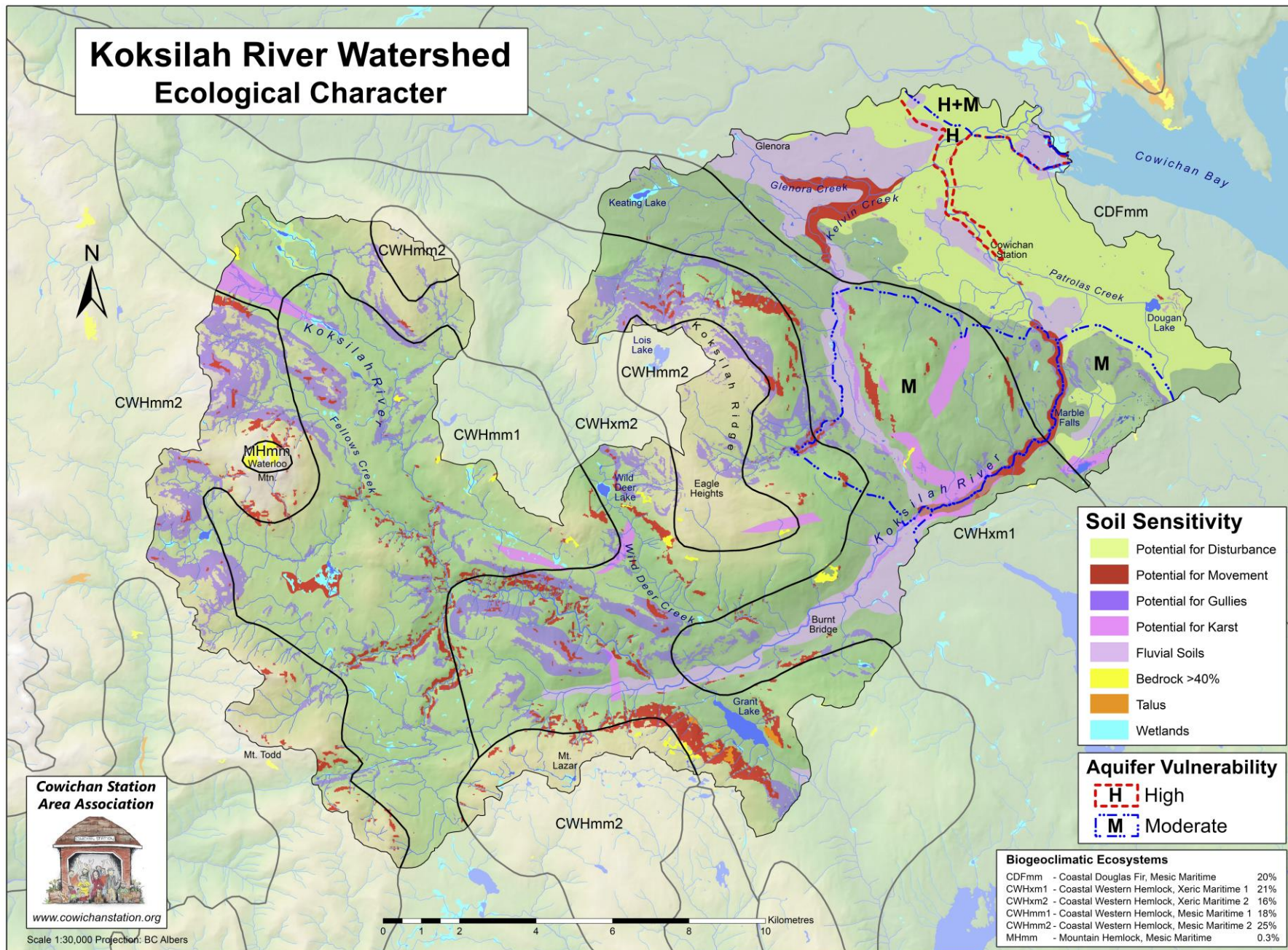
- Traditional land stewardship
- Natural disturbances
- Climate
- Hydrology
- Soils
- Terrain
- Wildlife
- Plants
- Fish







Koksilah River Watershed Ecological Character

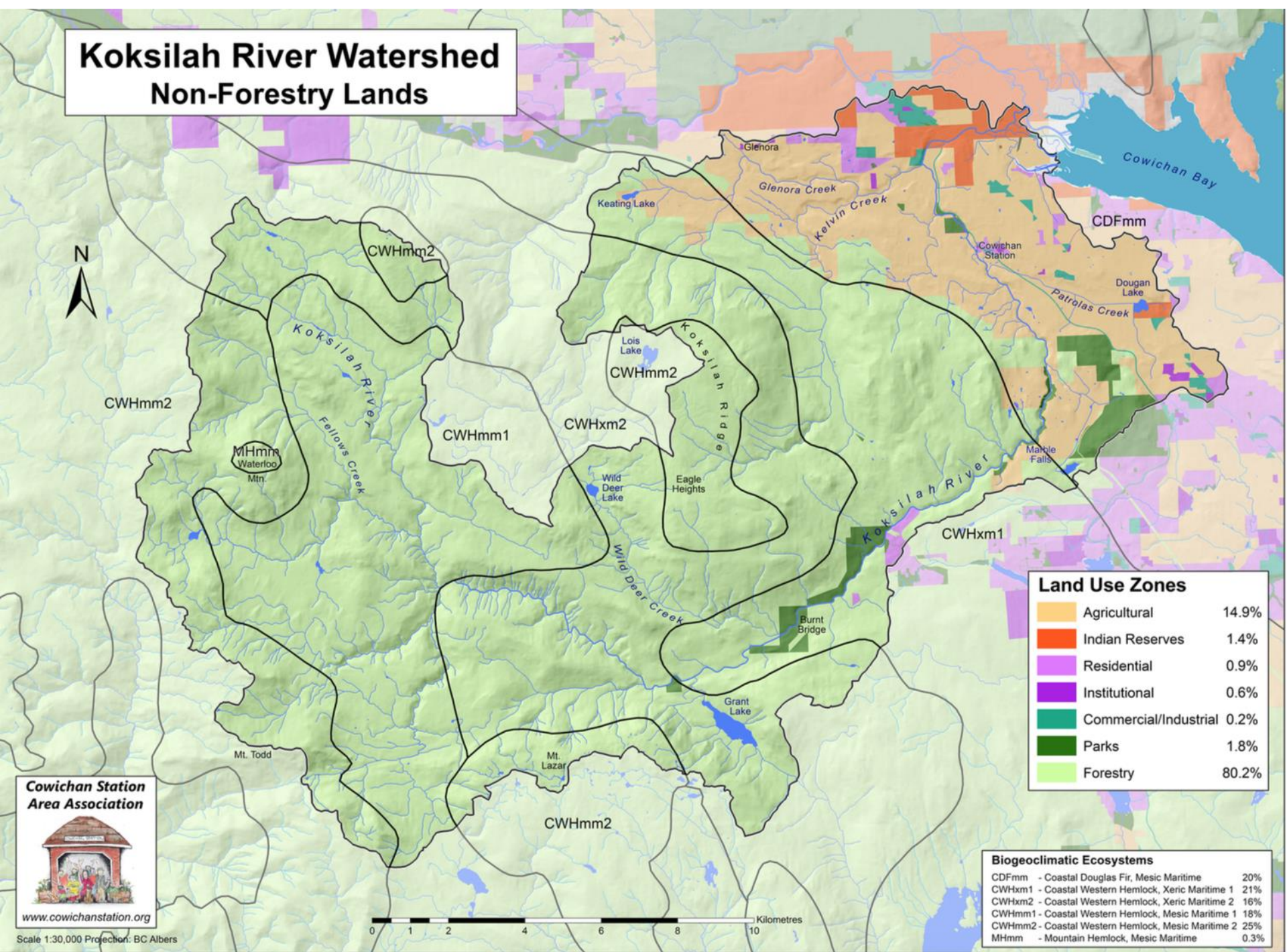




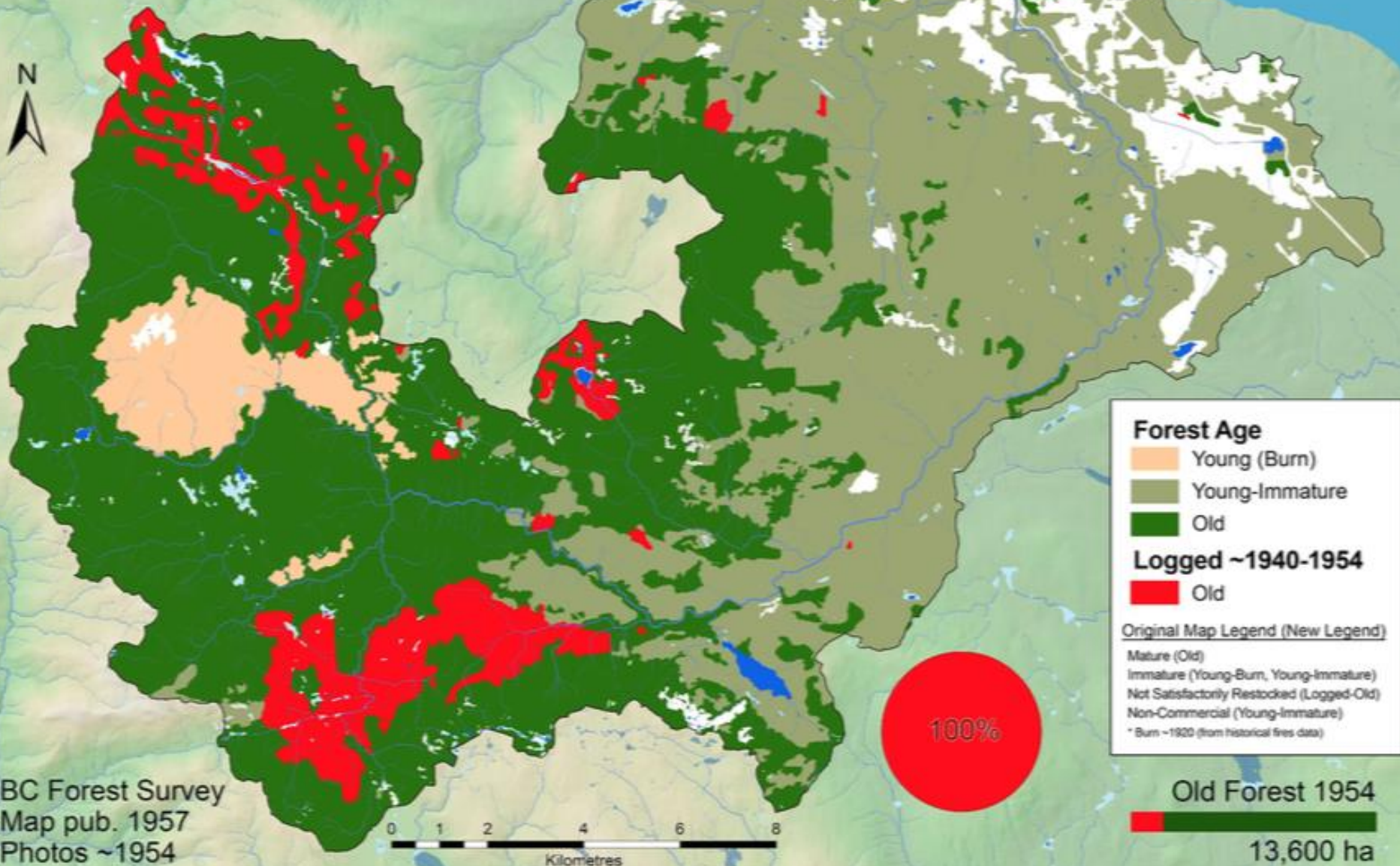
Settler Influences

- Communities
- Logging
- Farming
- Water extraction
- Estuary development
- Roads
- ...

Koksilah River Watershed Non-Forestry Lands

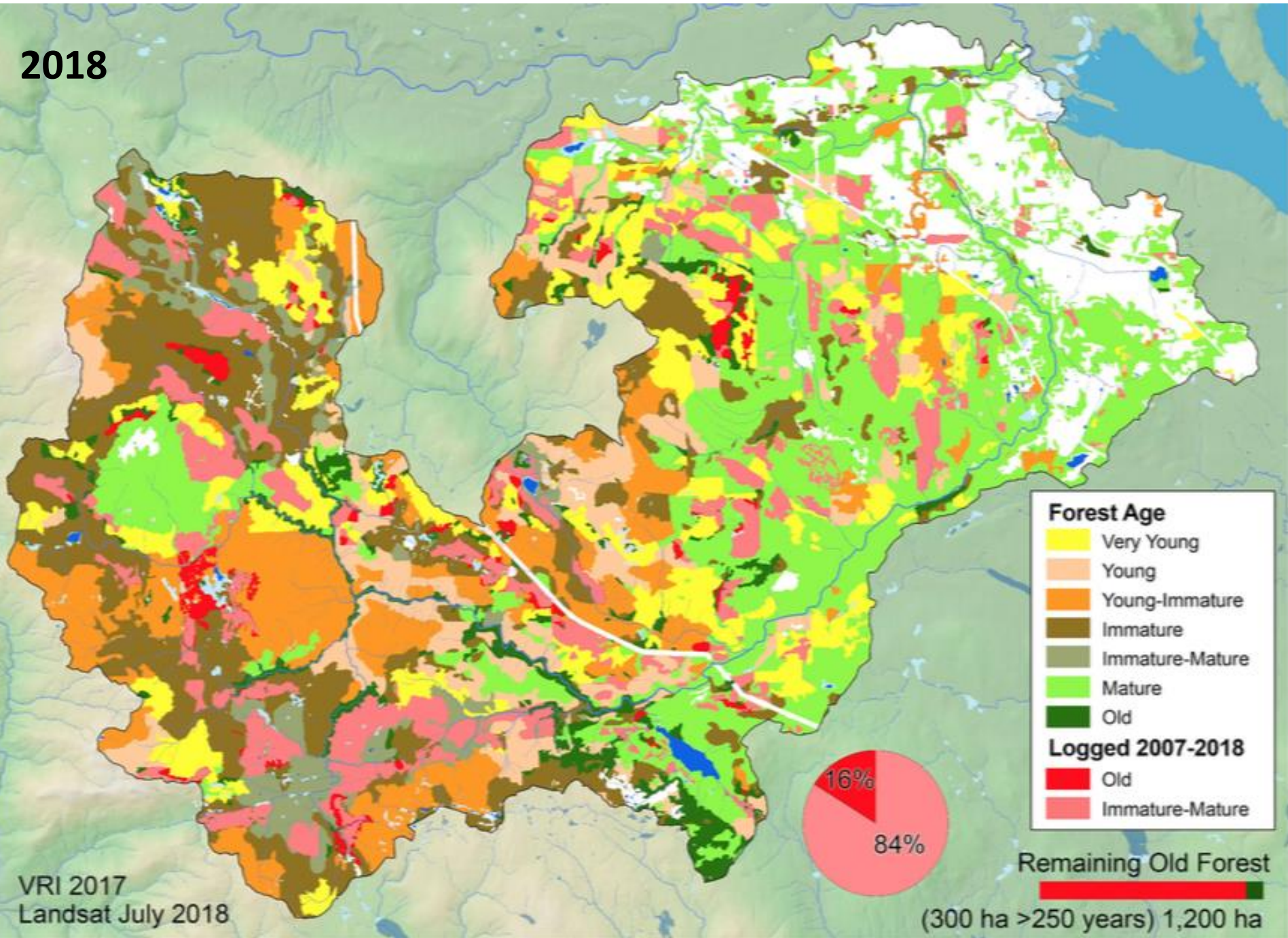


1954

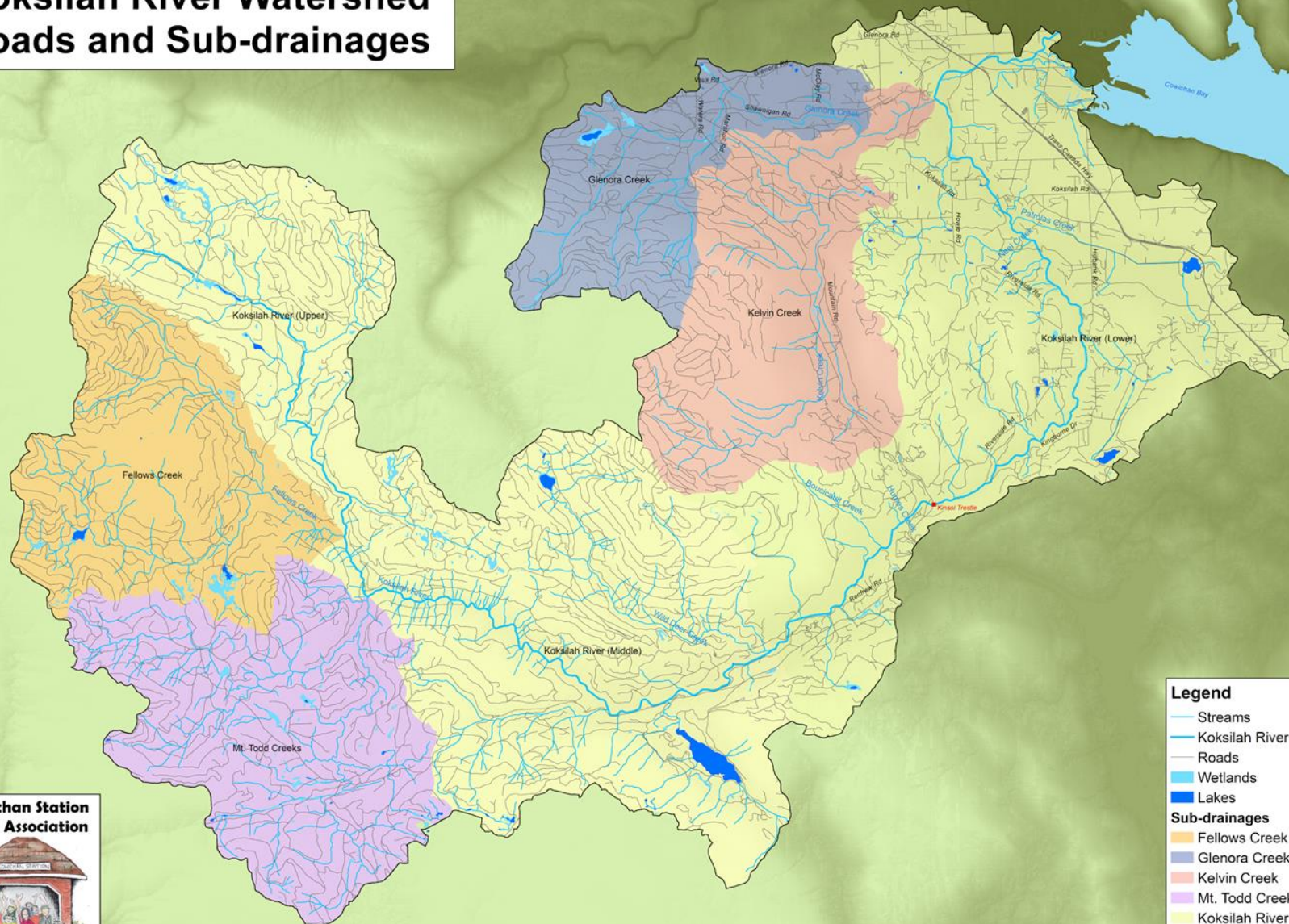


BC Forest Survey
Map pub. 1957
Photos ~1954

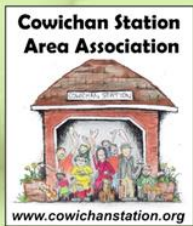
2018



Koksilah River Watershed Roads and Sub-drainages



- Legend**
- Streams
 - Koksilah River
 - Roads
 - Wetlands
 - Lakes
- Sub-drainages**
- Fellows Creek
 - Glenora Creek
 - Kelvin Creek
 - Mt. Todd Creeks
 - Koksilah River (Lower)
 - Koksilah River (Middle)
 - Koksilah River (Upper)



Scale 1:30,000 Projection: BC Albers

0 1 2 4 6 8 10 Kilometers



Condition

- Low flows
- Water quality
- Pollution
- Flooding
- Declining fish populations
- Loss of habitats
- Invasive species
- ...



Condition: Lower Watershed



Condition: Lower Watershed



Condition: Upper Watershed

Water Quantity



- Summer low flow has been in general decline since about 1985 despite a long-term increase in annual precipitation

Factors:

- Changing climate
- Potential land-use factors
 - water withdrawals,
 - road density, and
 - forest management practices
- Highest licensed water demand when the low flows are under the most pressure

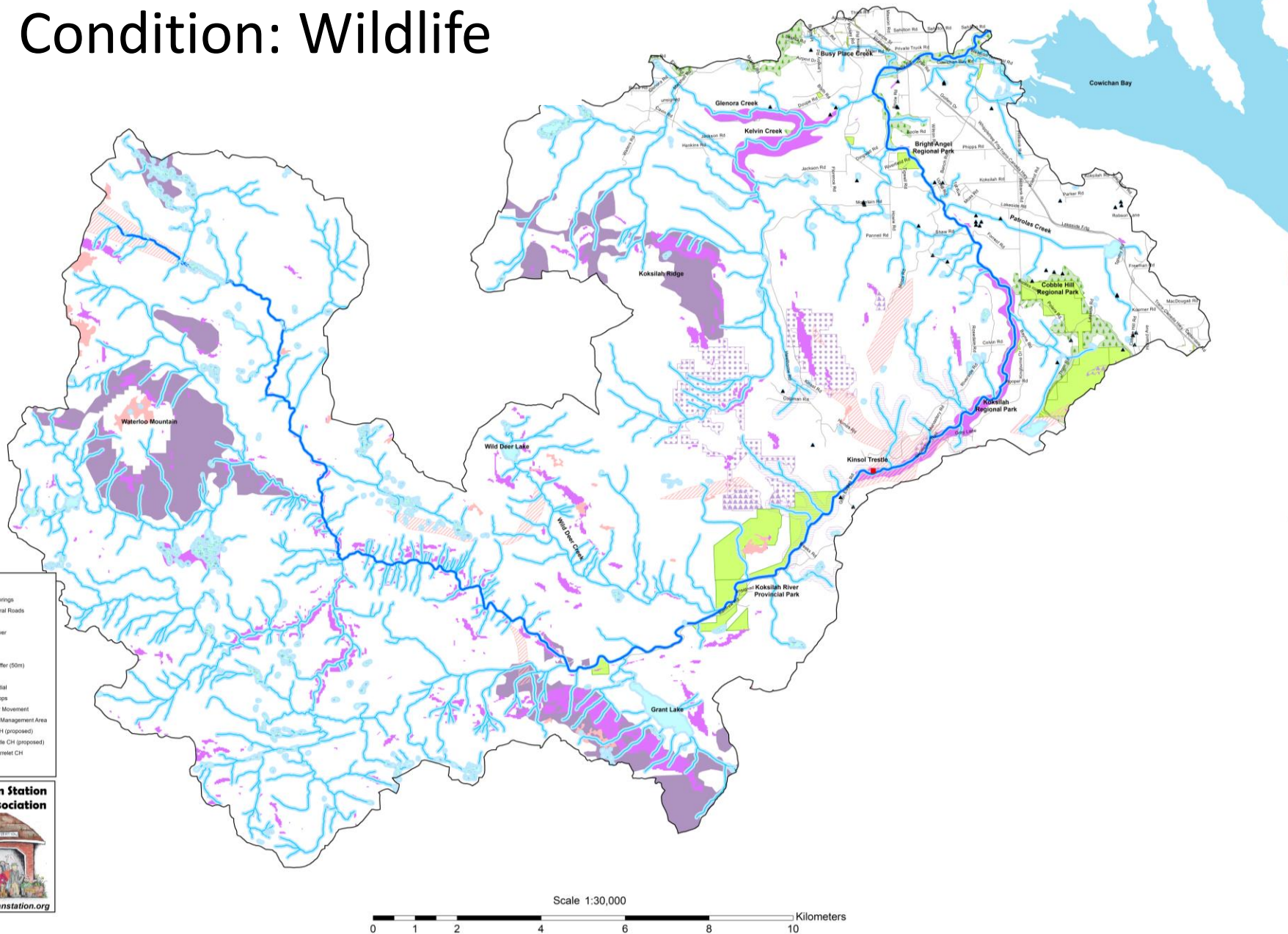
Condition: Wildlife



**Cowichan Station
Area Association**



www.cowichanstation.org



Next steps

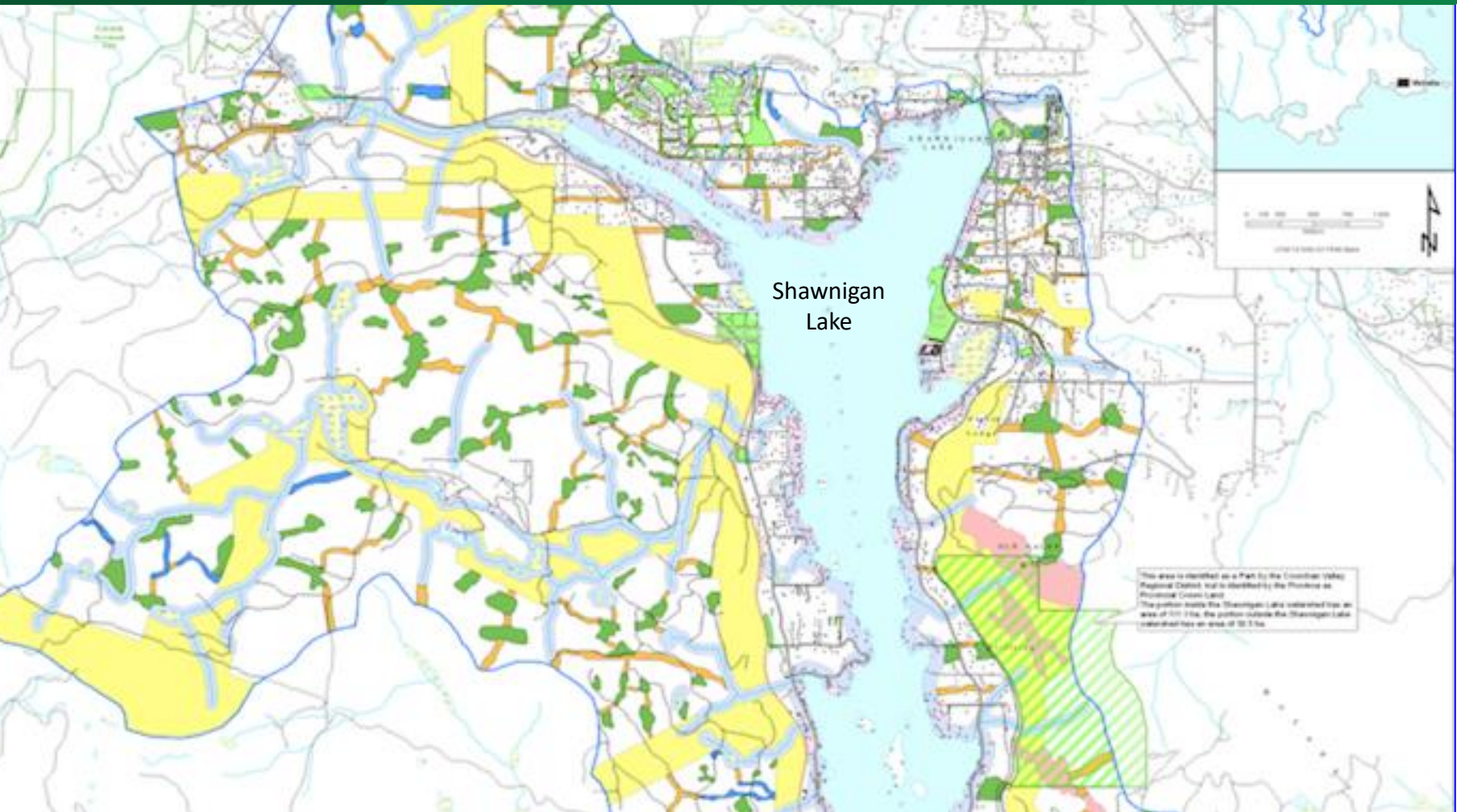


Describe watershed
character and condition

Review findings with
community

Design protected
landscape network

Review design with
community





Questions?