



Ministry of  
Forests, Lands, Natural  
Resource Operations  
and Rural Development

# South Coast SAR Update

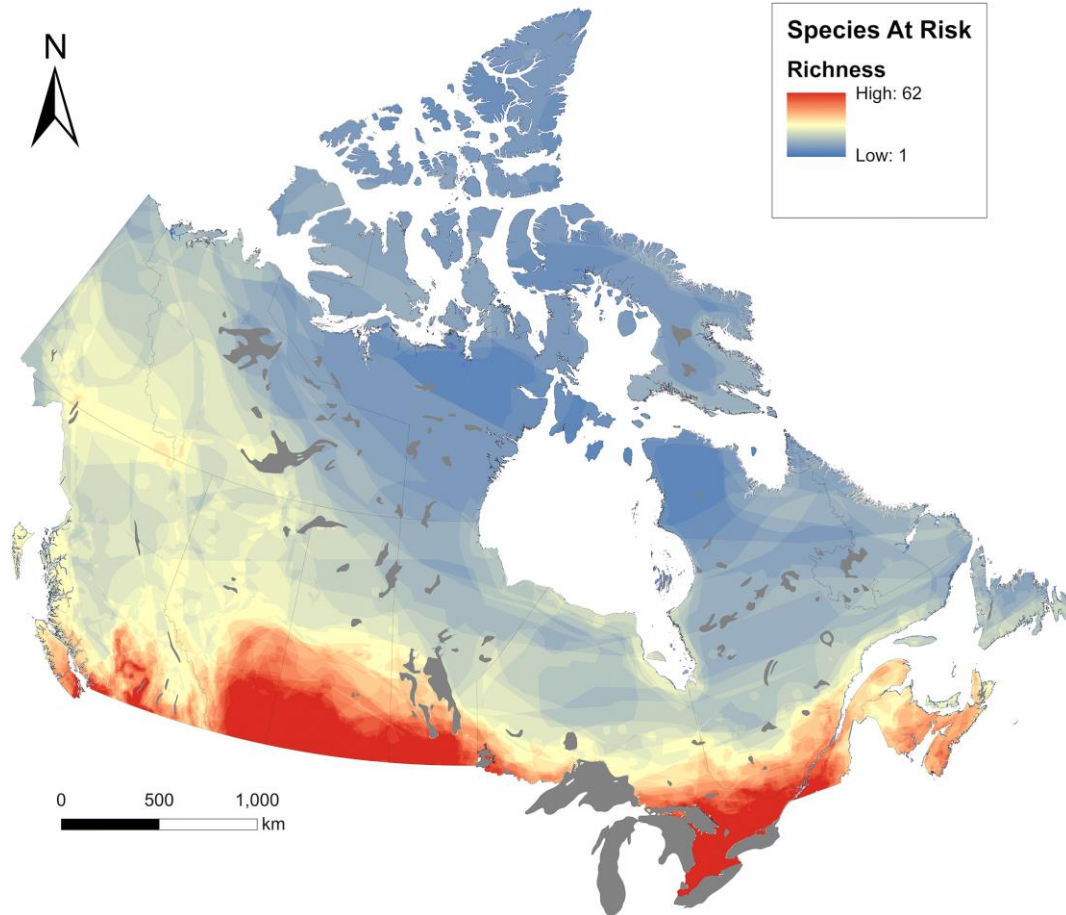
Bill Harrower

South Conservation Conservation Program

Conservation Connections

28 September 2021

# Number SAR overwhelming



Coristine et al 2018 FACETS

### FROGS & TOADS OF BC

Does the frog have...

- many tough warts and a light-coloured line down its back?

**Western Toad**  
*Bufo boreas*

- Lives in forest or mountain areas like forests.
- Swarms of frog tadpoles migrate in the spring.

**NO**

- prominent adhesive toepads on the front feet and a bandit-like eye mask?

**Pacific Chorus Frog**  
*Pseudacris regilla*

- Lives in open areas, even urban environments.
- Vocal frog whose colour changes from brown to bright green.

**NO**

- skin ridges down either side of its back and no visible ear drum?

**Northern Red-legged Frog**  
*Rana aurora*

- Mostly found in mountainous areas like parks and forests.
- Known for its long legs with red undersides.

**NO**

- eyes set back on the head and facing upward?

**Oregon Spotted Frog**  
*Rana boylei*

- Lives in wet areas year-round.
- Common frog in Canada.
- Only confuses with the less-suspect frog but lacks skin ridges on its back.

**NO**

### OWLS OF BC'S SOUTH COAST

Does the owl have...

- a large thick body yellow eyes and big long ear tufts?

**Great Horned Owl**  
*Bubo virginianus*

- Hoots a low but resounding "hoo-hNOD-hoo-hoo."
- Found in forests and open farmland.
- Nests in stick nests and open stags.

**NO**

- brown and white striped plumage and can be heard calling in the daytime?

**Barred Owl**  
*Strix varia*

- All forest owl that can also nest in parks and urban areas.
- Not typically shy around humans.

**NO**

- a heart-shaped face and white and brown speckled body?

**Barn Owl**  
*Tyto alba*

- Often found nesting or roosting in large wooden barns, riding arenas and old stags.
- Call is an atypical screech and high pitched tweets.

**NO**

Species At Risk Found year-round Usually found in the winter months & few

### COMMON LAND SNAILS OF BC'S SOUTH COAST

Does the snail have...

- no central pit on its underside distinct dark spiral bands (sometimes missing or faint) and a purplish brown apertural lip (outer edge of the shell opening)?

**Grovesnail**  
*Cepaea nemoralis*

- Shell has wide range of colours such as brown, orange or yellow.
- Non-native snail originally from Europe.
- Non-native species commonly found in gardens and more urban areas.

**NO**

- a deep central pit on its underside a usually chestnut-brown shell (sometimes straw-yellow with faint banding) and a distinct banding pattern, with dark brown bands below each whorl and a yellow band near the bottom of the shell?

**Pacific Sideband**  
*Maradonia fidelis*

- Largest land snail in BC.
- Lives in deciduous, coniferous or mixed forests, but can also be found in grassy areas.
- Can be found as high as 7 metres up trees.

**NO**

- a deep central pit on its underside a brown or yellow-brown shell with a sometimes bleached appearance and a thick, white and flared apertural lip?

**Oregon Forestsnail**  
*Allogona montana*

- Only found in the Lower Mainland and Fraser Valley.
- Lives in moist lower elevation deciduous forests with dominant logleaf maple trees.
- Often found in patches of stinging nettle.

The Pacific Sideband's body is a deep pink, dark orange or burgundy colour, while the Oregon Forestsnail is light tan.

<http://www.sccp.ca/species-and-habitat>

# Big threats overwhelming



Resource Extraction



Urbanization



Agriculture



Recreation

# Limited First Nations involvement



# FLNRORD focus on the big three....



Spotted Owl



Marbled Murrelet



Northern Goshawk

Also: Oregon Spotted Frog, Mt Goat, Grizzly Bear, Wolverine, Western Screech Owl, Sturgeon, Steelhead

# CoViST

Conservation of Species, Ecosystems, and Indigenous Values in S'ólh Téméxw



FLNRORD Joanna Burgar, Agnieszka Sztaba, Bill Harrower and Josh Malt  
Karen Bradey, Keri Ardell, Kevin Webber, Colin Green, Deanna Rach, Lisa  
Davidson,

STSA



S'ólh Téméxw  
Stewardship  
Alliance

MENU



**S'ólh téméxw te íkw'elò.  
Xyólhmet te mekw' stám ít  
kwelát.** 

(This is our land. We have to take care of  
everything that belongs to us.)



<https://thetsa.ca/>

# What are we doing together?

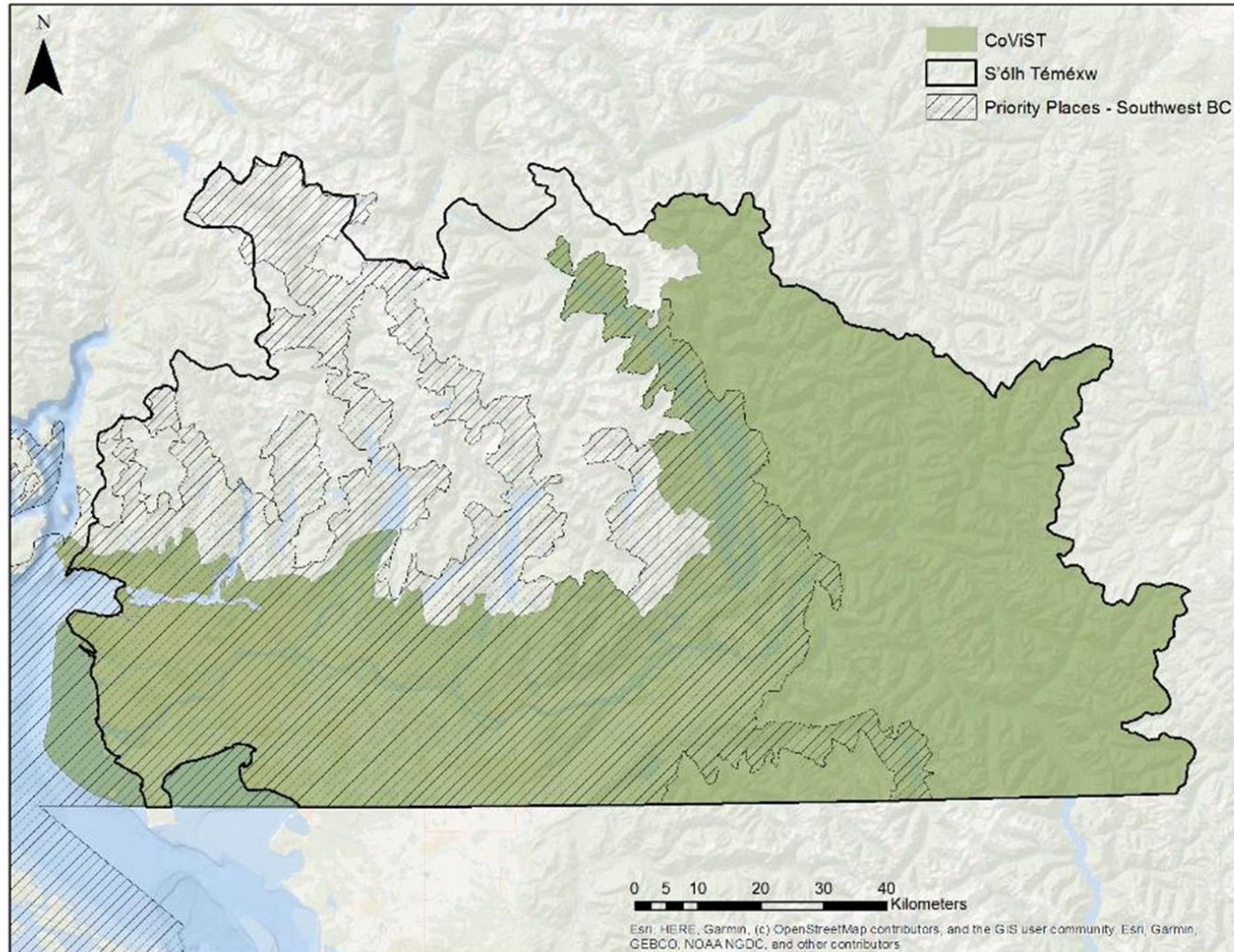
- ▶ Building a partnership and working with stakeholders
  - ▶ What indigenous values are at risk?
  - ▶ How do indigenous values and SAR co-occur?
- ▶ Examining regional impacts
  - ▶ Can we identify priorities areas?
  - ▶ Is there connectivity?
- ▶ Tracking how we are doing
  - ▶ Where are we now, where are we going?
  - ▶ Who needs to know?
- ▶ Predict
  - ▶ Are we working in all the right places?
  - ▶ Where should we go in future?



Fringed Myotis, Jose G. Martinez-Fornseca



# Where are we working together?



# Building Multi-value objectives (SBOT)

- ▶ Stewardship Based Objectives Tools (SBOTs) allow us to set objectives
- ▶ Requires:
  - ▶ Baselines - where are we now
  - ▶ Vision - knowing where your going
- ▶ Developing



American Bittern, John Reynolds

# Building Multi-value objectives (SBOT)

[DRAFT] SBOT - Northern Goshawk, laingi subspecies

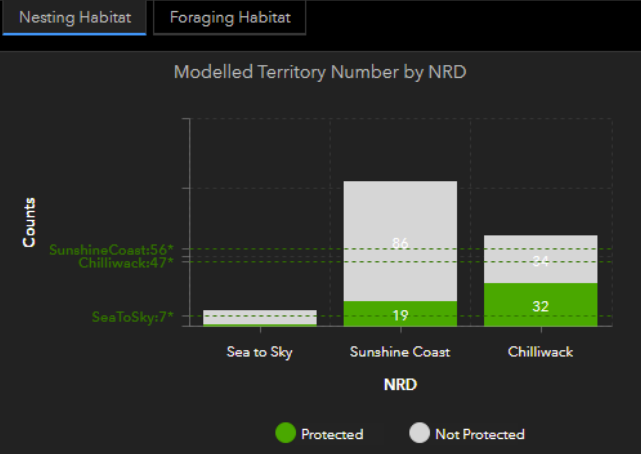
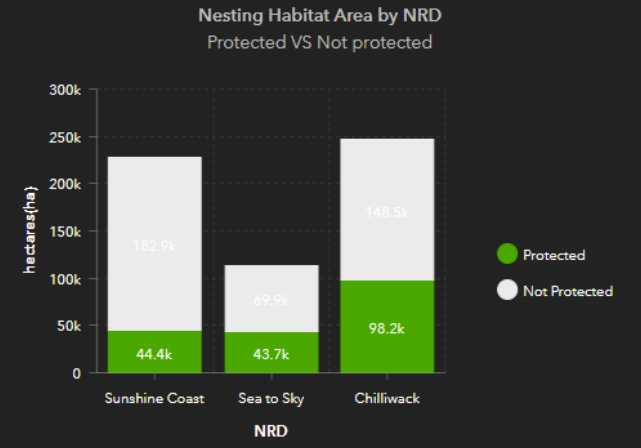
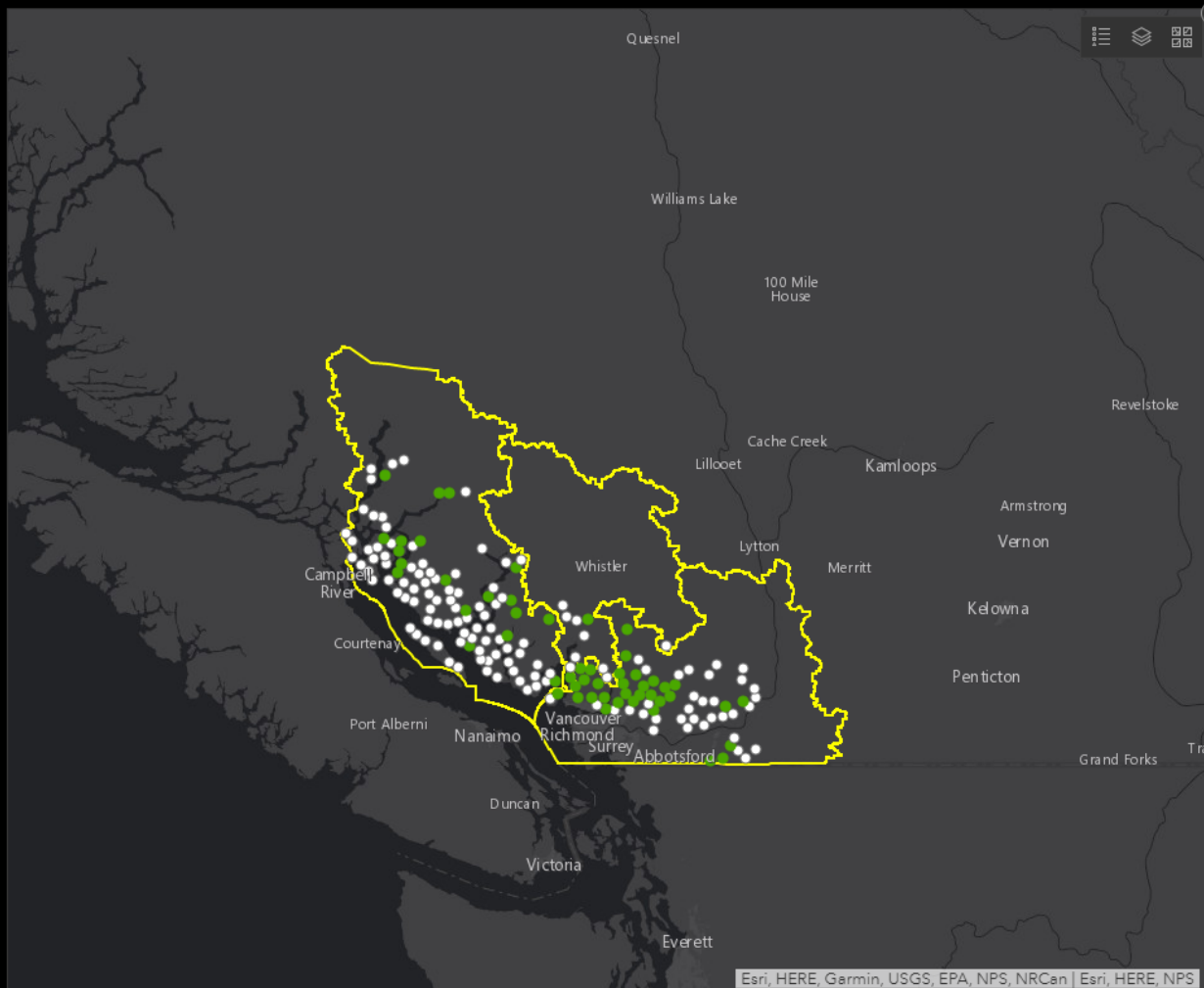
Version 1.0 Last Updated Jan 8, 2019



Overview **Dashboard** Assessment Tool

Select one of the Natural Resource Districts (NRDs) listed below to update the charts and gauges and identify the selected district(s) on the map:

- Sunshine Coast Natural Resource District
- Sea to Sky Natural Resource District
- Chilliwack Natural Resource District



Overall **Individual** Area

**53 Protected Territories**

Indicator **More Info**

# FLNRORD Engagement

## Key groups:

- ▶ Land managers
- ▶ Non-STSA First Nations
- ▶ Species experts

## Input land managers

- ▶ Held workshop (Spring 2021)

## Engaging non-STSA First Nations

- ▶ Underway before year end

## Species Experts

- ▶ Coming attraction in 2022



Oregon Forest Snail, John Reynolds



# Systematic Conservation Planning

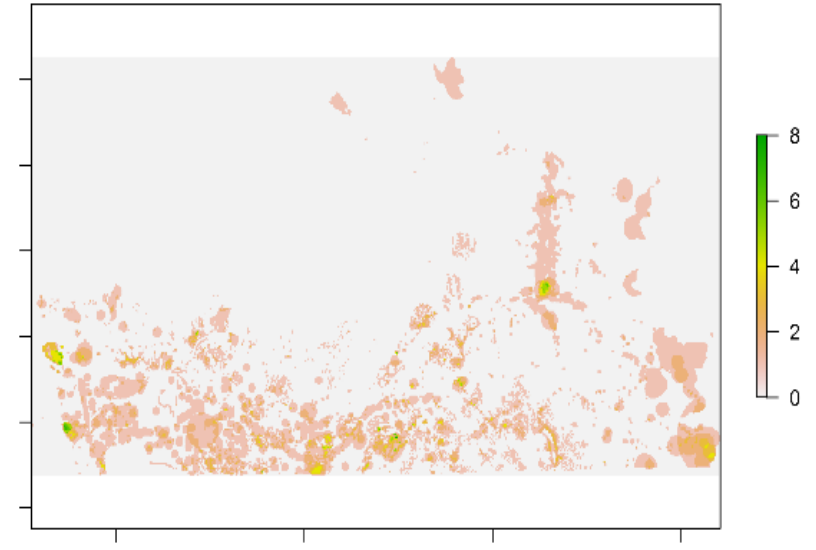
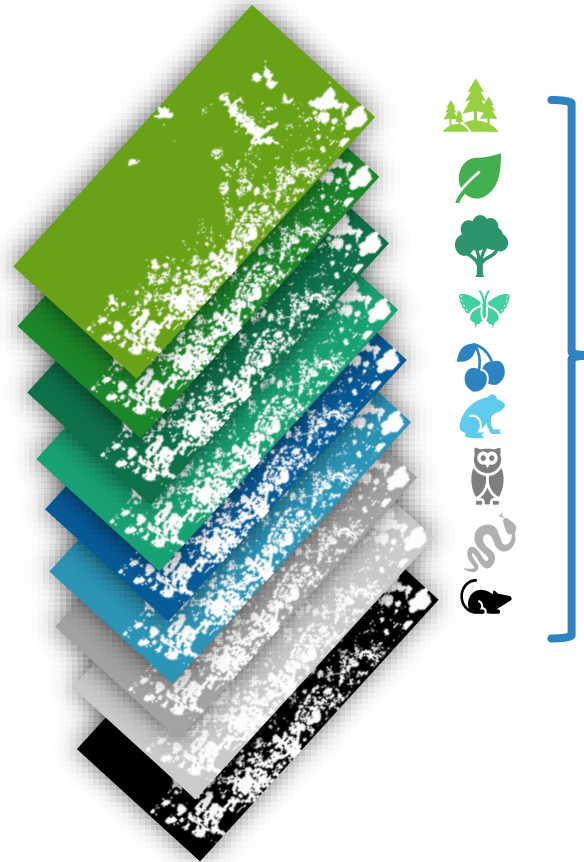
Quantify species, ecosystems, and indigenous values spatially

Prioritize land parcels based on

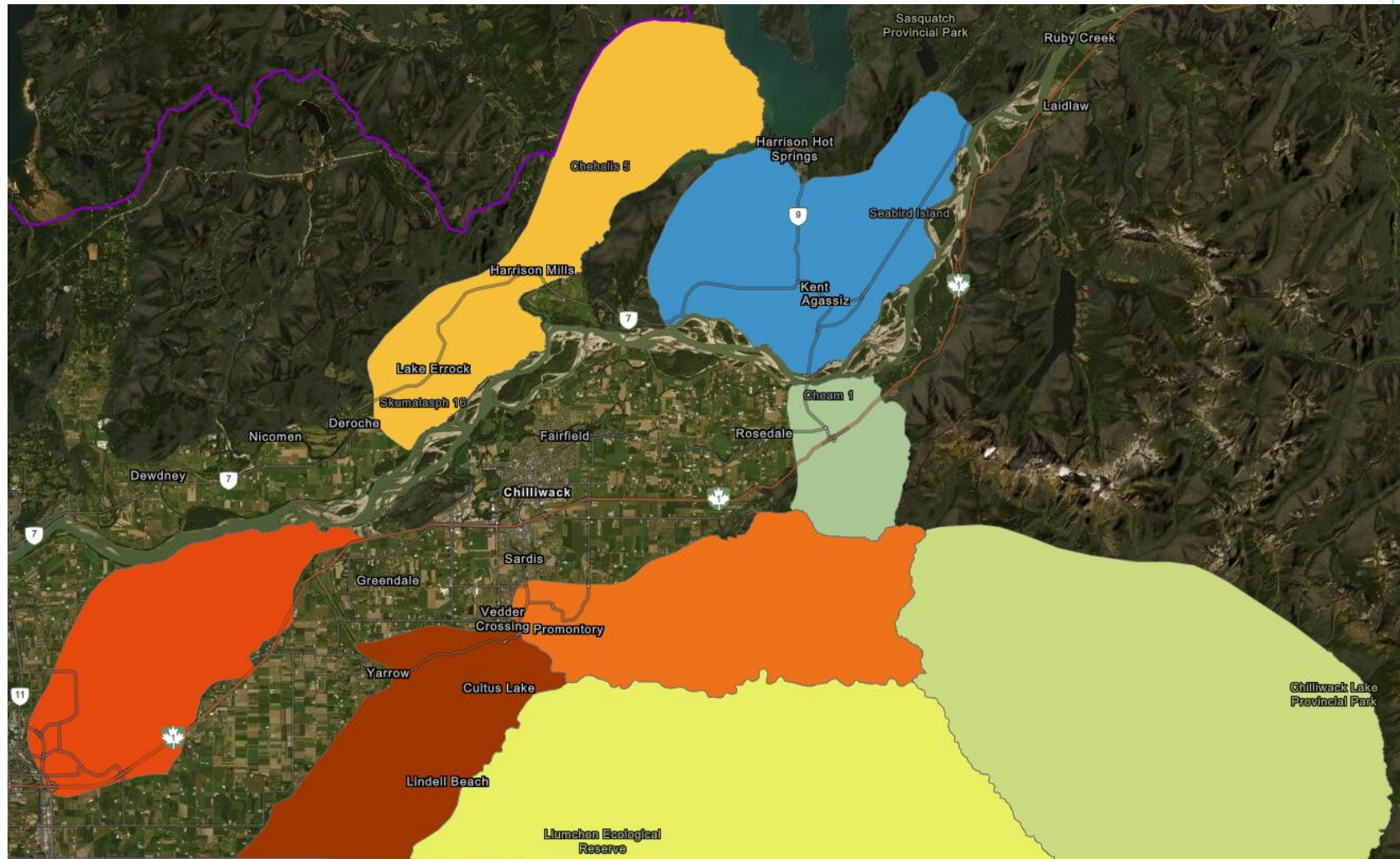
- ▶ Greatest number of species or values
- ▶ Reducing threats
- ▶ Most effective actions (cheapest, best)
- ▶ Build biggest parcels, most connected

Communicate and track

- ▶ Present information with SBOT
- ▶ Track information projects / Progress
- ▶ Make this knowledge available



# Stewardship Based Objectives Tool (SBOT)



# Prediction

- ▶ Predict new or high-value sites with new data (high resolution GIS)
- ▶ Overcome issues with survey effort, missing data.
- ▶ Link species to indigenous values
- ▶ This is still really under development but building.



Phantom Orchid, [calphotos.berkeley.edu](http://calphotos.berkeley.edu)



Gappletail, John Reynolds

# Conclusion

Continue to work with you!

- ▶ Indigenous partners and nations
- ▶ Stakeholders
- ▶ Species experts
- ▶ Federal government

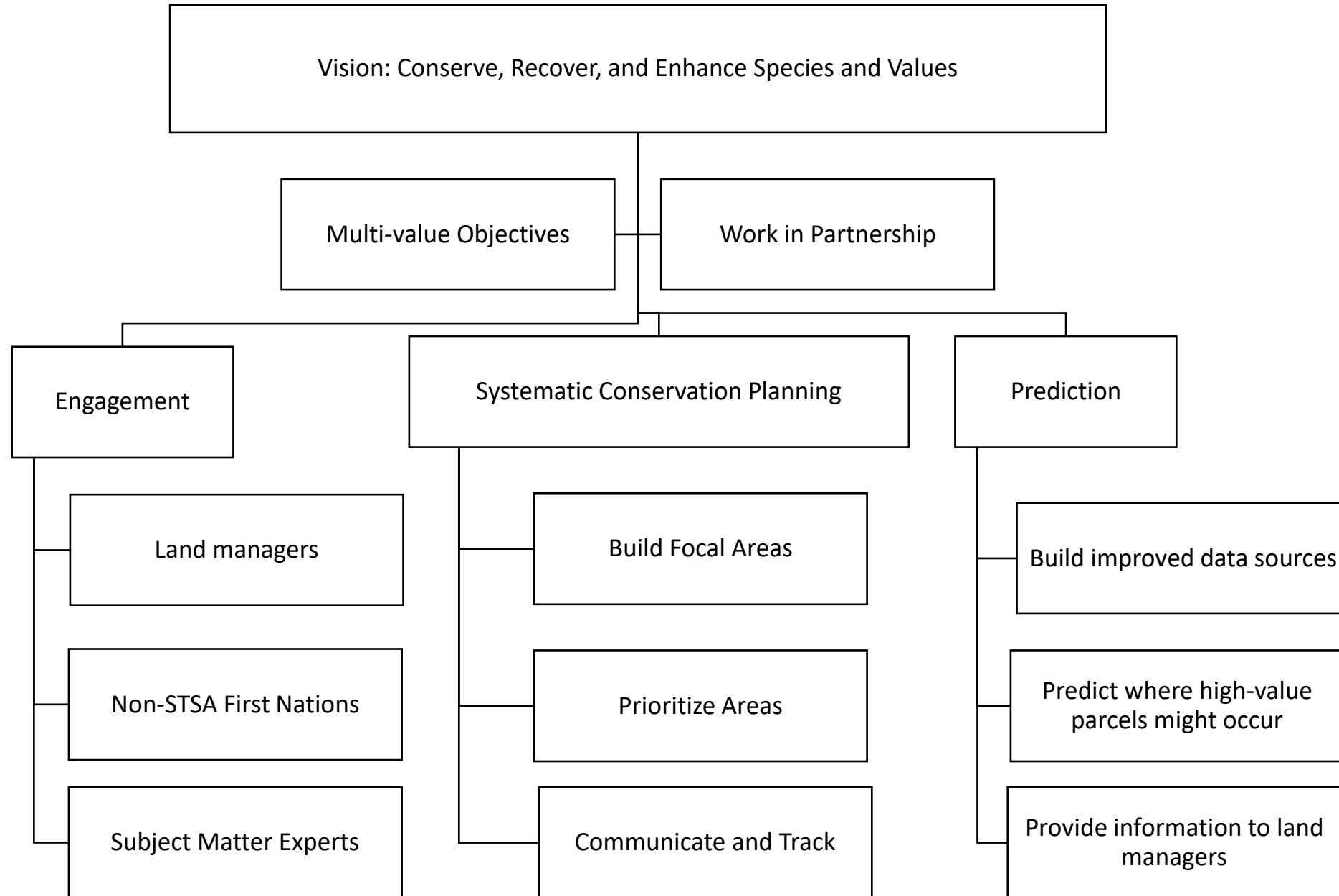
Using the best available evidence to

- ▶ Build new tools
- ▶ Inform decisions
- ▶ Provide this to others

Like you, trying to keep up!









# What species are priorities?

- Northern Goshawk (Implementation Plan)
- Marbled Murrelet (Implementation Plan)
- Spotted Owl (captive breeding/re-introductions)
- Tall Bugbane (propagation/planting)
- Western Screech Owl (habitat restoration)
- Grizzly Bear (cumulative effects assessment)
- Mountain Goat (cumulative effects assessment)
- Phantom Orchid (cumulative effects assessment)
- Roosevelt Elk (cumulative effects assessment)
- Western Painted turtle (captive breeding)
- Oregon Spotted Frog (captive breeding/recovery)
- Coastal Giant Salamander (habitat restoration, inventory, effectiveness monitoring)
- Steelhead (barrier removal, inventory)
- Coastal Tailed frog (cumulative effects assessment)
- Pacific water shrew (inventory)
- Lower Fraser White Sturgeon (inventory, regulations, etc)
- Mountain Goat (inventory, human disturbance, etc)
- Terrestrial Carnivores (Wolverine) (inventory, human disturbance, etc)
- Grizzly Bear (inventory, habitat assessment, etc)