

# Cascadia



PARTNER  
FORUM





**Formed by practitioners in Washington and British Columbia's Cascade mountains in the summer-fall of 2012.**

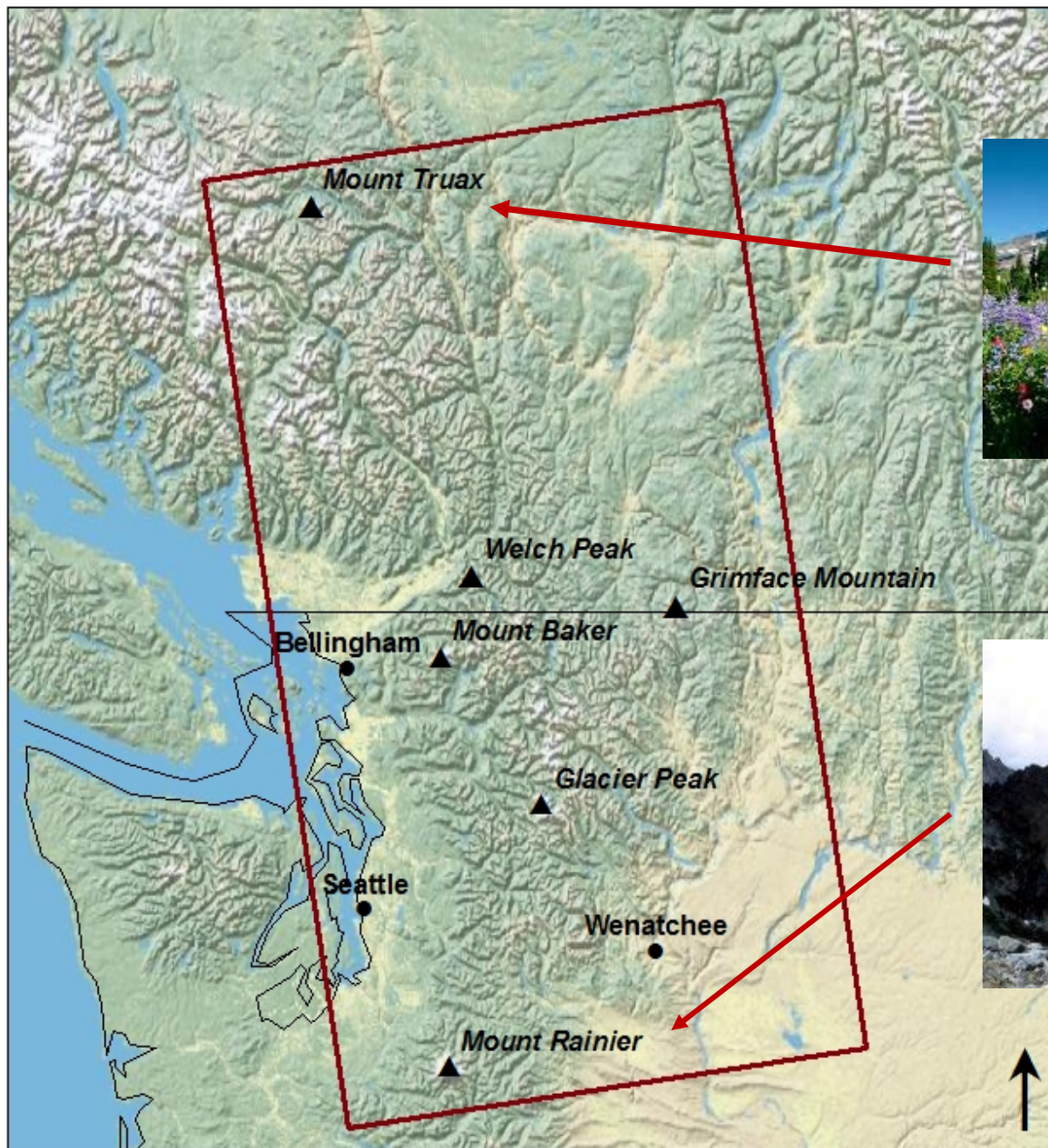




The Cascadia Partner Forum **fosters a network** of natural resource practitioners working with the Great Northern and North Pacific Landscape Conservation Cooperatives **to build the adaptive capacity of the landscape and species living within it.**

1. To identify and prioritize science and management needs and resources to increase adaptive capacity in the Cascadia landscape;
2. Highlight successes and challenges in implementation of adaptation actions;
3. Facilitate communication to share ideas and expand implementation of adaptive actions including identification of new approaches;
4. Draw attention to this unique landscape.





**Legend**

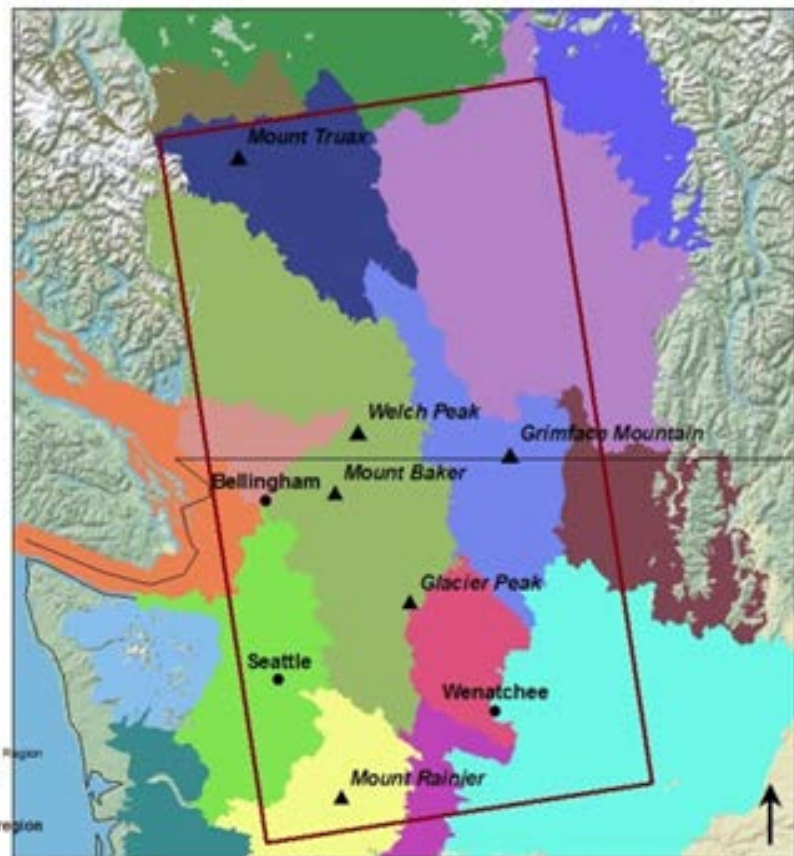
— Cascadia Region

0 75,000 150,000 Meters





## Ecoregions of Cascadia Region



0 75,000 150,000 Meters

Author: Carl  
Feb  
Data

Washington Department of Natural Resources  
(<http://fortress.wa.gov/dnr/lapp1/dataweb/bldn>)  
Washington Department of Ecology  
(<http://www.ecy.wa.gov/databases/wr.html>)  
British Columbia Ministry of Environment  
(<http://www.env.gov.bc.ca/ecology/>)

## Land Ownership of Cascadia Region

### Legend

Cascadia Region

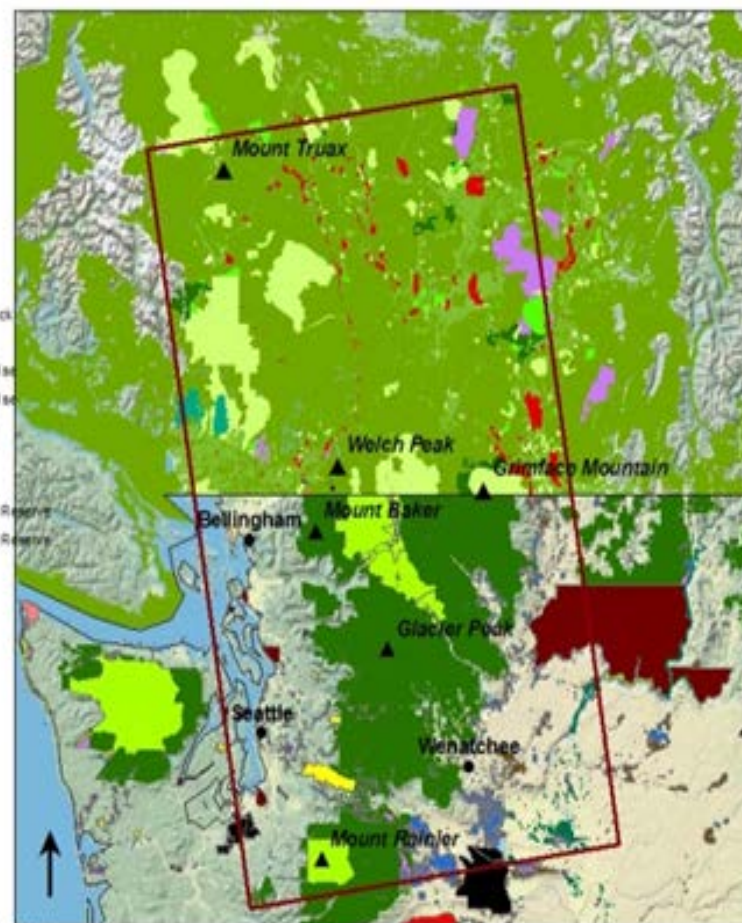
### BC Land Ownership

#### Land Administration

- Private-Crown Grants
- Federal Reserves
- Indian Reserves
- Military Reserves
- Dominion Government Block
- Ecological Reserves
- Crown Reserves - Public Use
- Crown Reserves - Public Use
- Crown Forest Mgmt Unit
- Provincial Park
- Provincial Park
- Forest Service Recreation Reserve
- Forest Service Recreation Reserve
- Active Timber License
- Active Timber License
- Private Land
- Private Land
- Watershed Timber
- Christmas Trees
- Woodlot License
- Community Forest
- Recreation

### Legend

- US Forest Service
- National Parks Service
- US Bureau of Land Management
- US Bureau of Reclamation
- US Dept of Defense
- Washington State Parks and Rec
- Washington State Dept of Fish and Wildlife
- Reservations Tribal Management
- Yakama Nation
- Wakah Tribe
- Lummi Nation
- County Management
- City Management
- Privately Owned



0 75,000 150,000 Meters

Author: Carissa Jackson

February 5, 2013

Data courtesy of:

Washington Department of Natural Resources

(<http://fortress.wa.gov/dnr/lapp1/dataweb/dmdata.html>)

Washington Department of Ecology

(<http://www.ecy.wa.gov/databases/wr.html>)

British Columbia Ministry of Environment

(<http://www.env.gov.bc.ca/ecology/ecoregions/>)



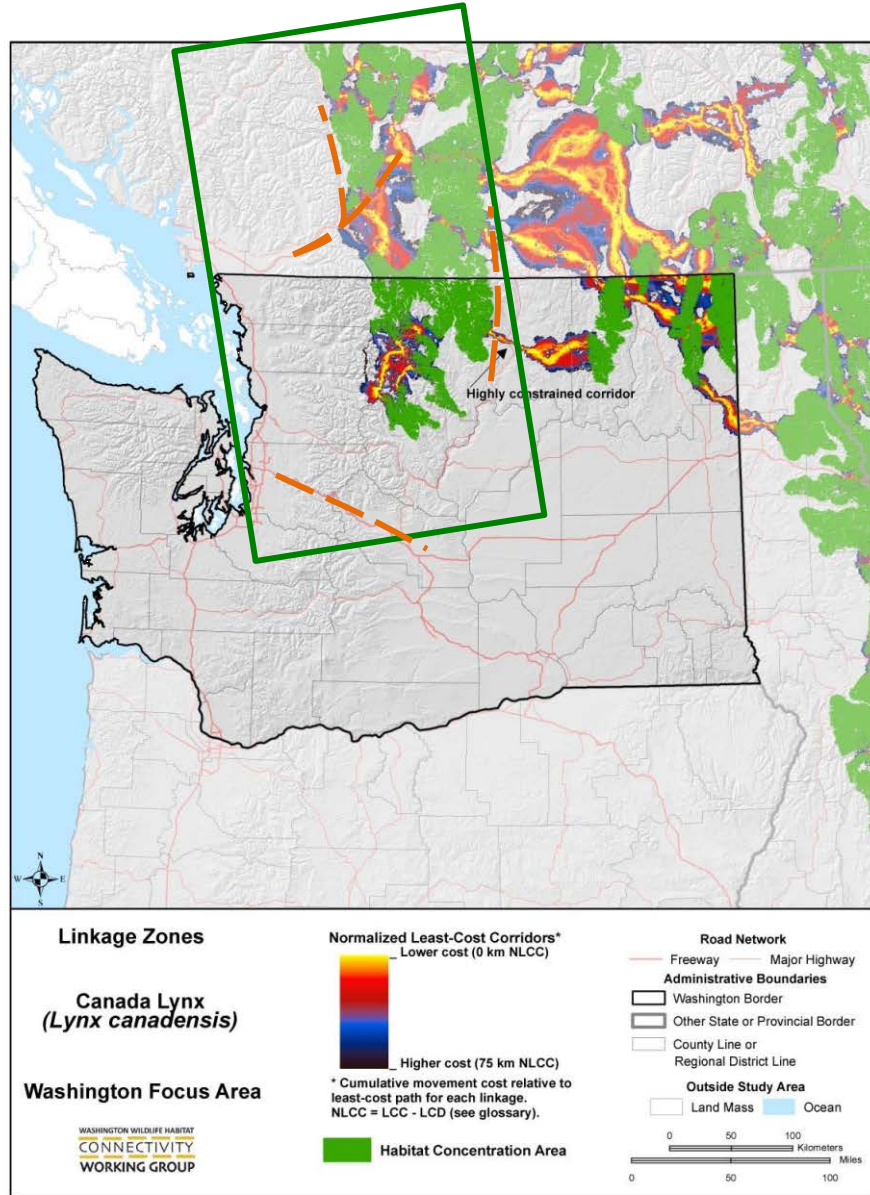
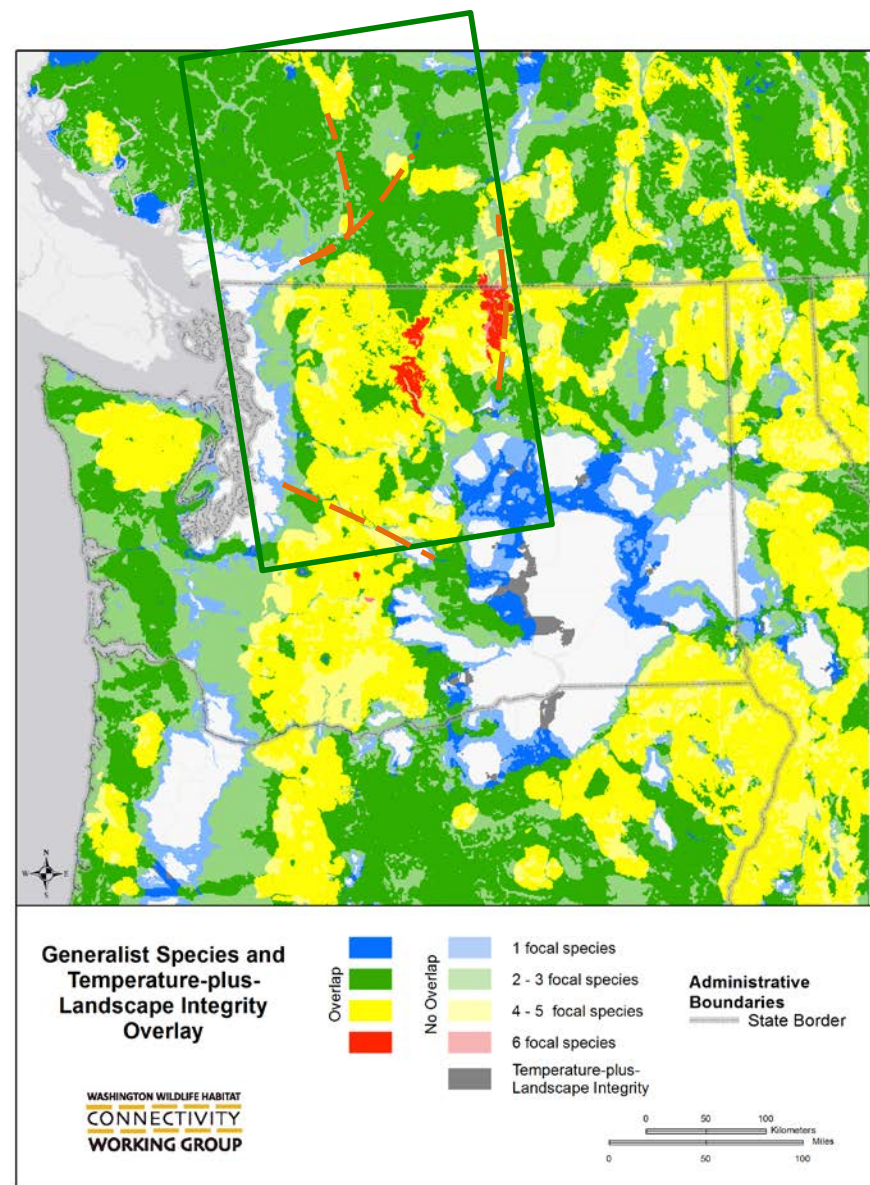


Figure 3.56. Canada lynx linkages.



# Priority issues

Establishing specific climate adaptation priority issues to **increase knowledge, coordination, and attention towards** is important in focusing and directing our partner forum's work.



Our current priority issues are: *access management, bull trout, Canada lynx, ecological connectivity, grizzly bear, salmon, water, and wolverine.*

For 2018, we added two additional issues we are just beginning to define a strategy for addressing: *fire and First foods.*



# Road Network of Cascadia

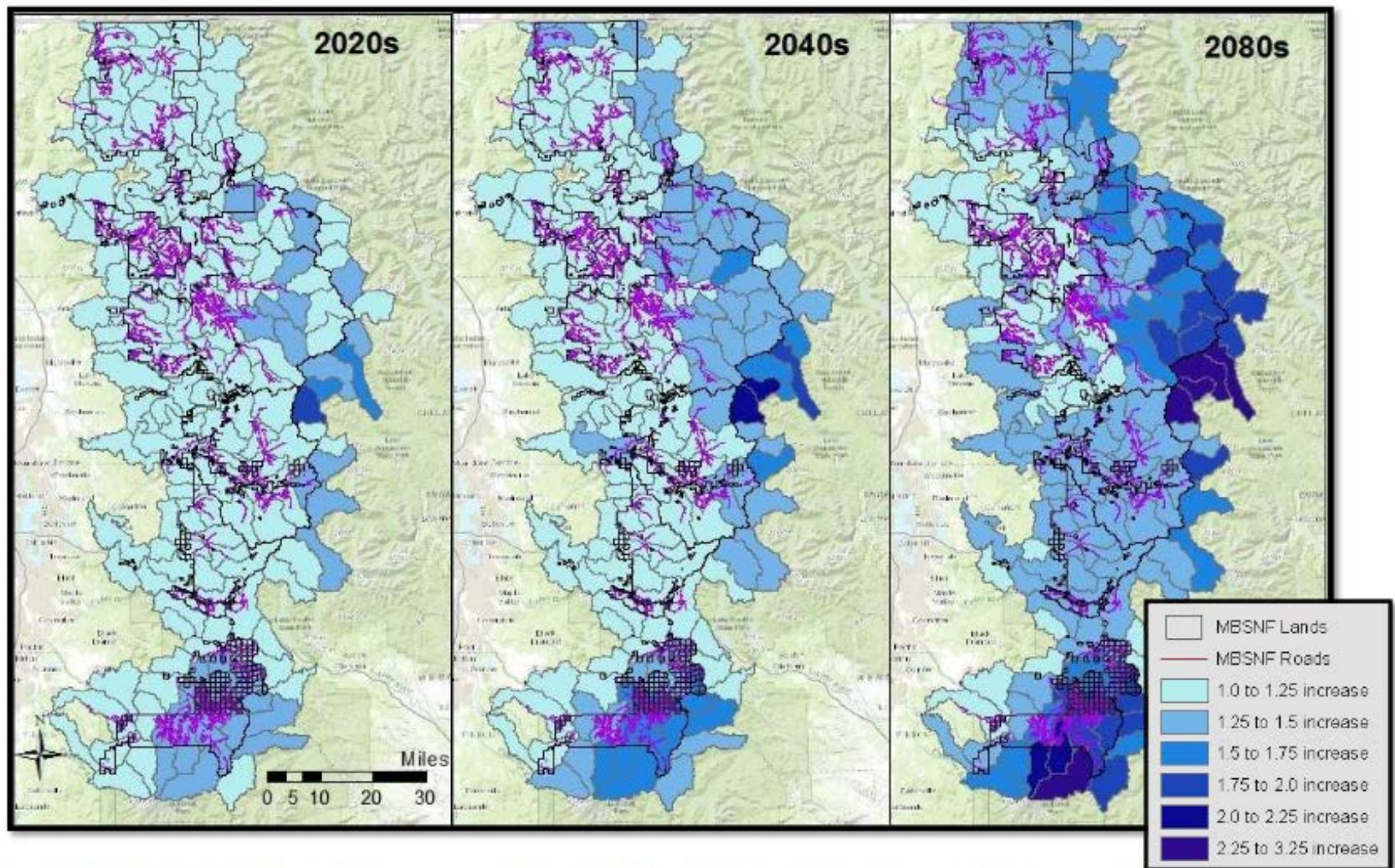
2013





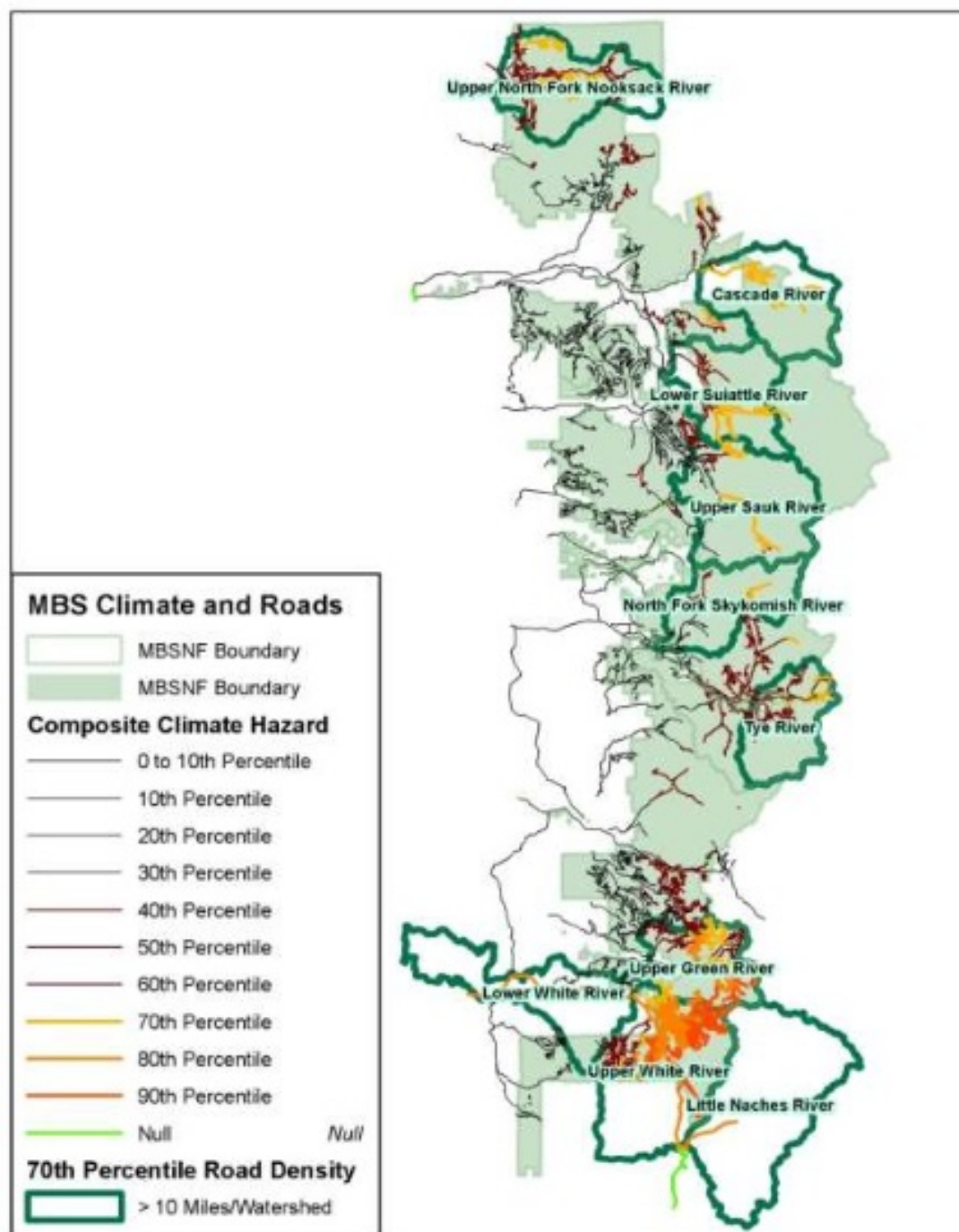






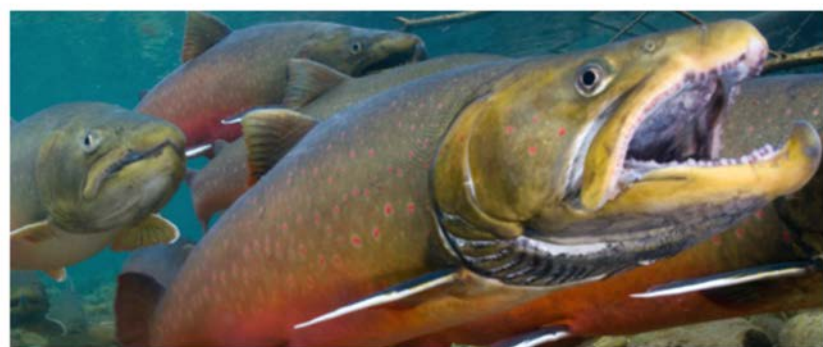
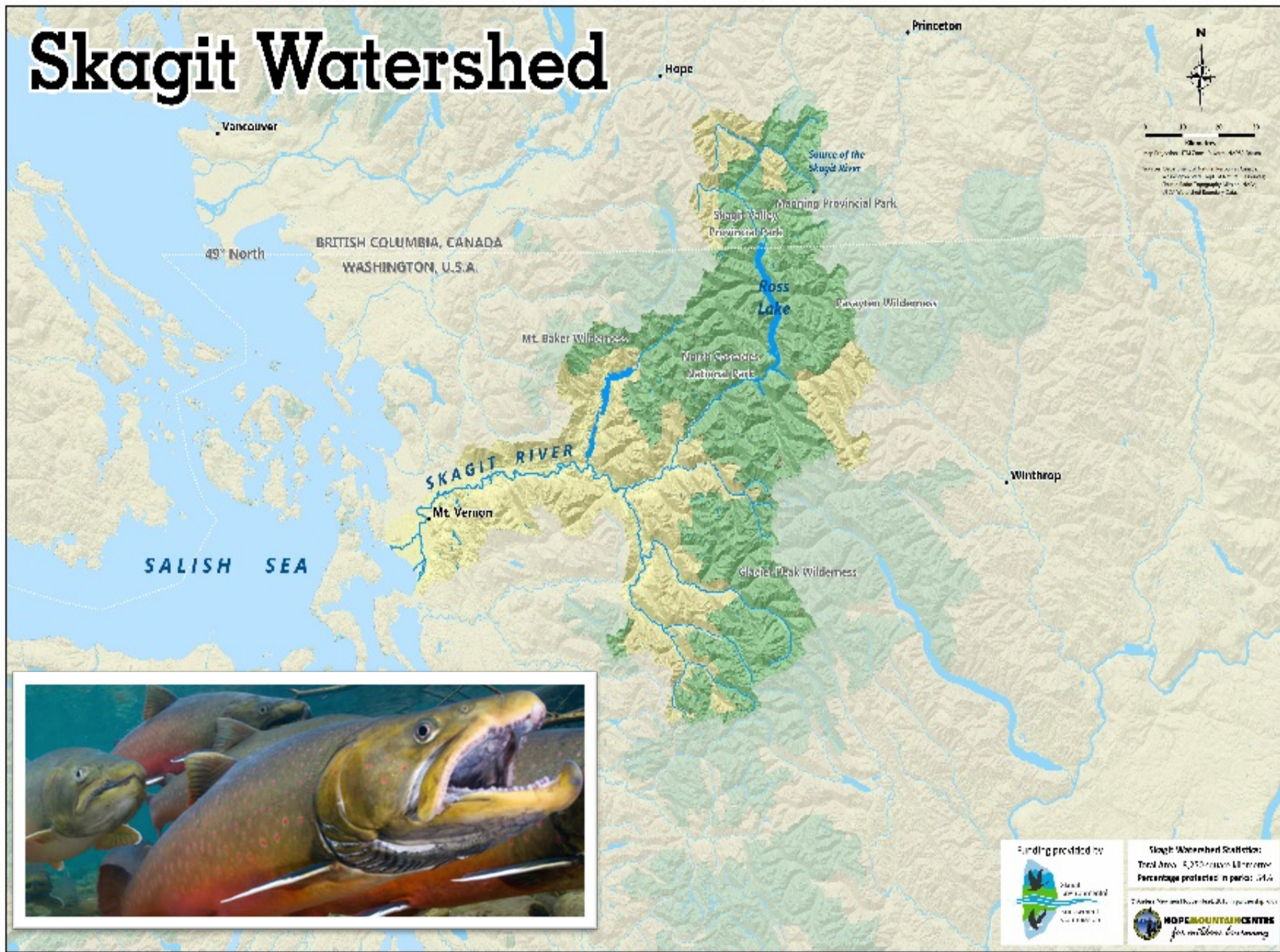
**Figure 7 - Shifting trend in the 100-year flood statistic in watersheds of MBSNF.** Flood level is designated as the annual peak flow with an estimated 100-year return frequency (Q100). The flood statistic represents the ratio of Q100 in 2020s, 2040s, and 2080s to historical (1916-2006) levels. Ratios > 1 indicate increasing peak flows in the future and no ratios were < 1. For example, a 1.5 increase indicates a 50% increase in Q100. Roads within MBSNF are shown in purple.







# Skagit Watershed



Funding provided by



**Skagit Watershed Statistics:**  
 Total Area: 4,270 square kilometers  
 Percentage protected: 10 percent

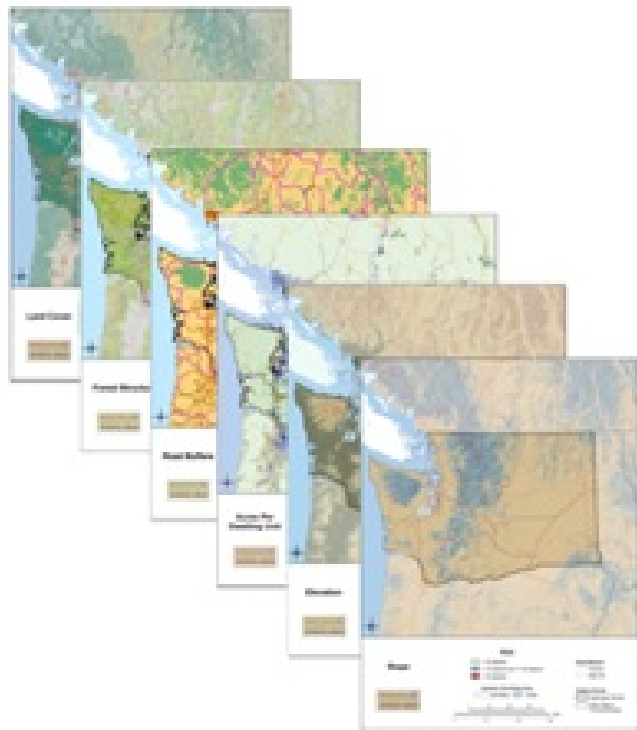
Skagit Watershed Partnership  
**NOPE MOUNTAIN CENTRE**  
 for mountain stewardship



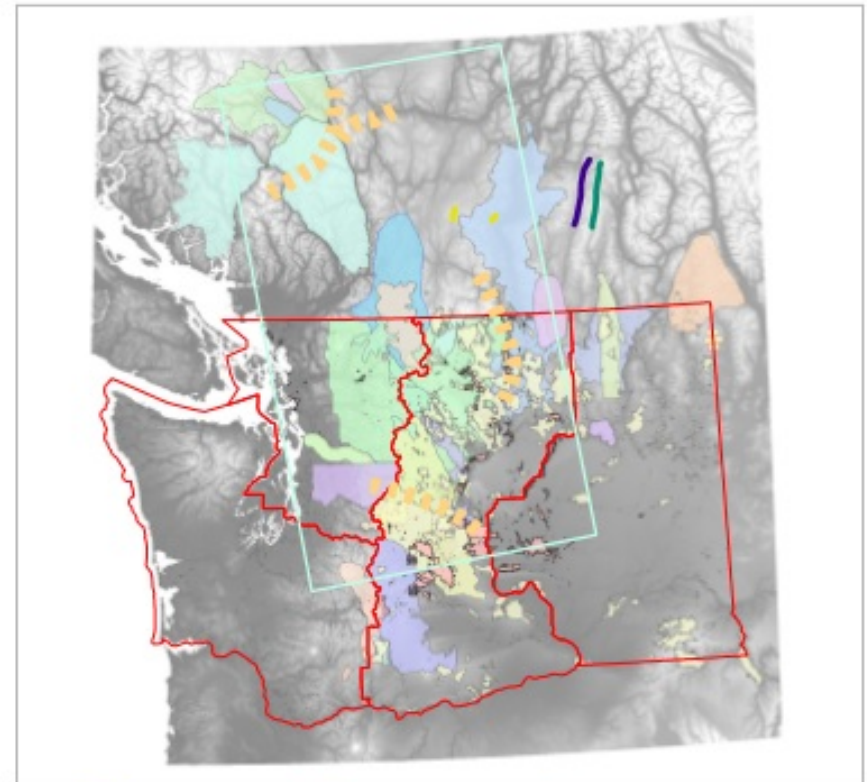




# Spatial priorities



## EXPERT OPINIONS ON SPATIAL PRIORITIES IN CASCADIA







*“Climate matters for almost everything we know in the natural and human world. The big answer to what are the dangers or risks around climate change is that it's everywhere....Responding to climate change requires that we look at the whole picture, and that we work together across boundaries.”*





*“An effective strategy for actually addressing that can't be done without collaboration and thought across borders. At the end of the day, we need to be having conversations that help us to inform policy that will affect policy on both sides of the border.”*





*“Knowing our research, and the science related to climate change, is very important to the management of our national forest....We are all in this together, so think as big picture as you need to be, so we can all speak with one voice.”*



# Cascadia Climate Adaptation Strategy

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The strategy will be a **multi-scale effort** aiming at **providing access** to information, spatial priorities, tools to explore options, resources towards implementation of actions, and communications for creating a resilient Cascadia for ecological and human communities today and into the future.

It will be developed comprehensively but delivered in phases, as some components will take longer to execute. The **process** of building and sharing these pieces will be as important as the product.



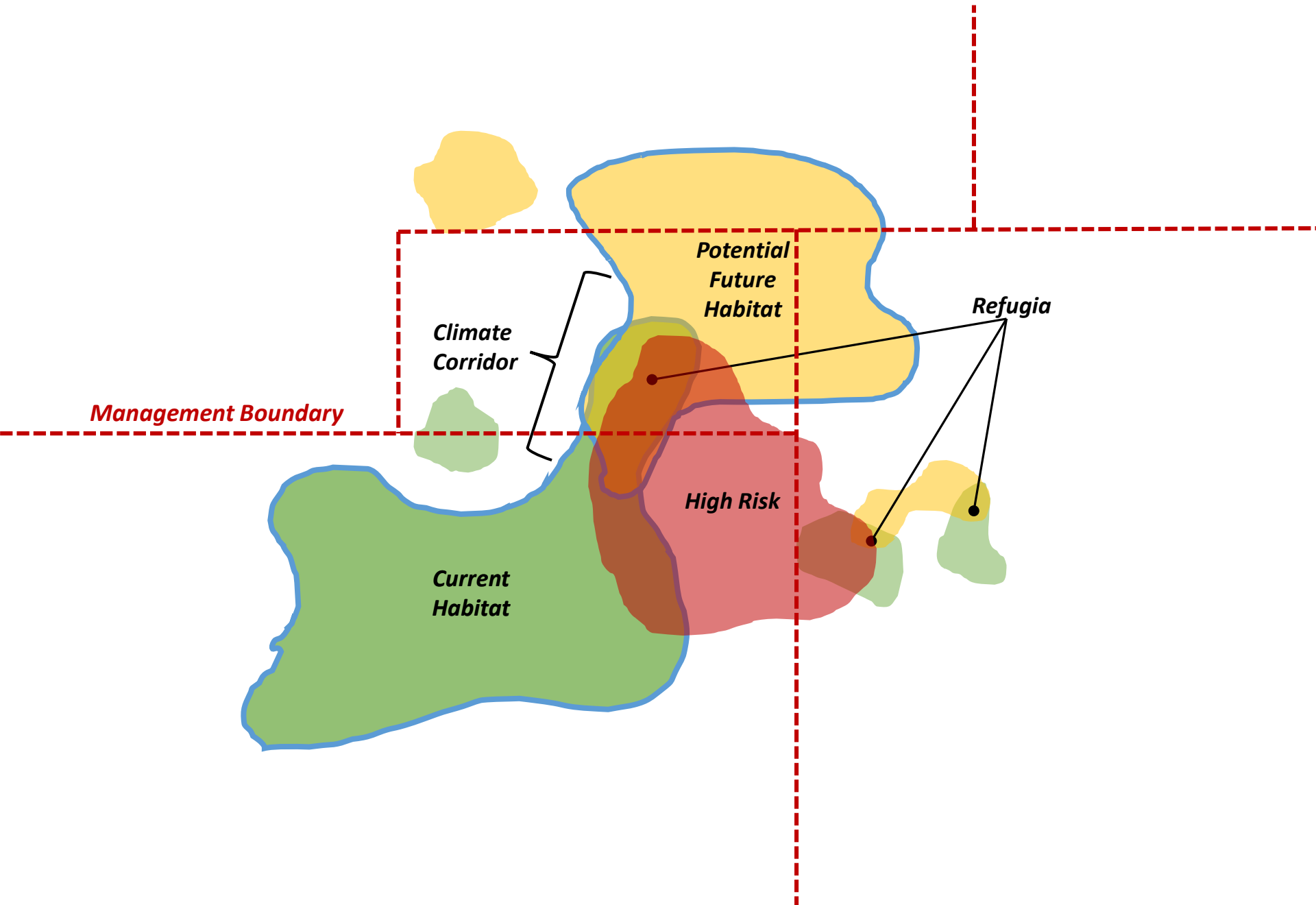
# Cascadia Climate Adaptation Strategy

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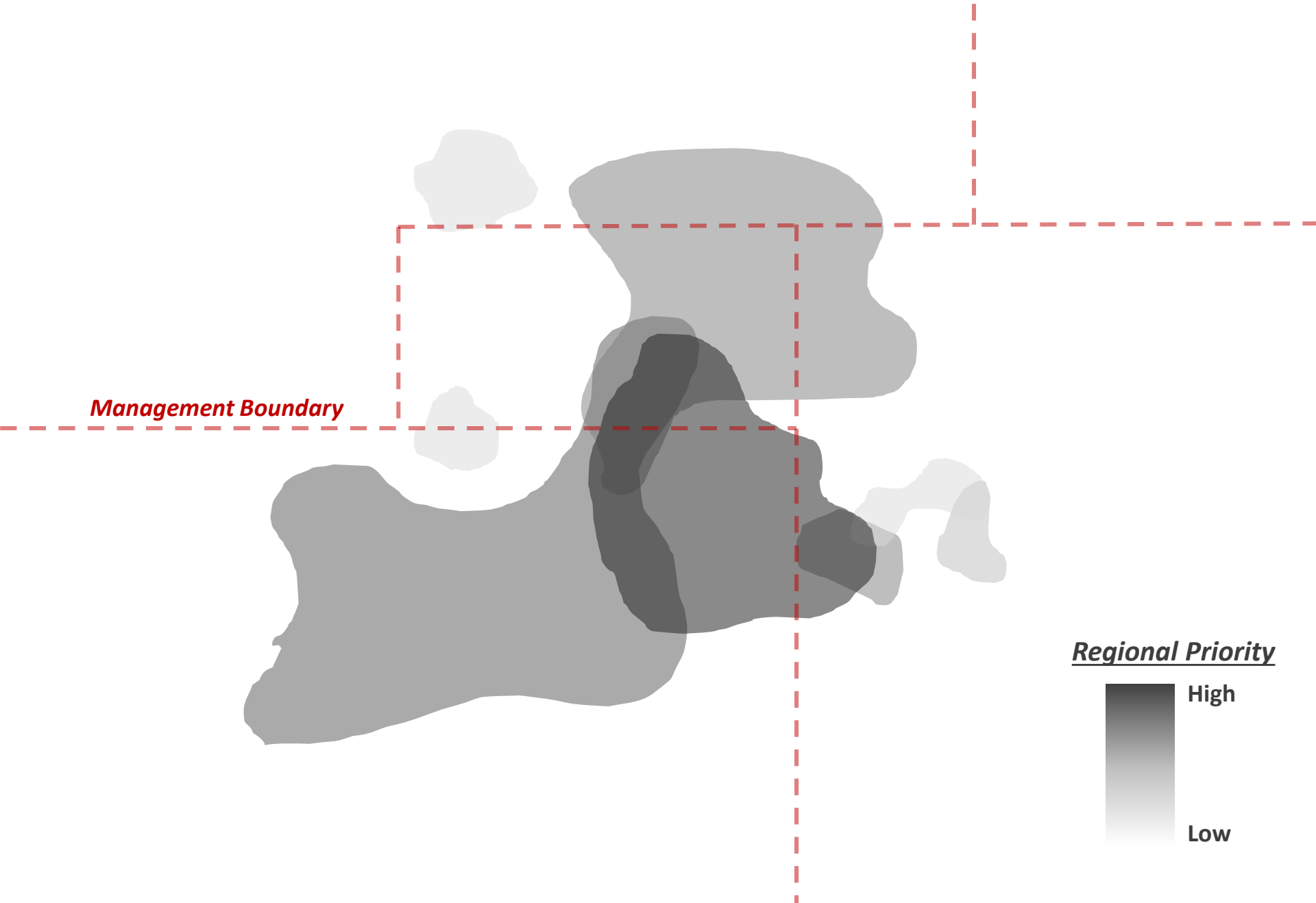
- 1) Developing a shared regional vision for a resilient Cascadia
- 2) Providing a regional spatial tool that reflects this shared vision and allows local actions to quickly observe how they fit into a regional context of a resilient future.
- 3) Creating an easily accessible, coordinated, and interactive inventory of the tremendous depth of existing resources to inform actions today.
- 4) Bringing together people and science to forecast scenarios and explore options on topics of regional significance, from population growth to fire management, to inform regional coordination and planning.
- 5) Engage, inspire, and connect the human communities of Cascadia through storytelling and communications



# ***Spatial Priorities in a Changing Climate***

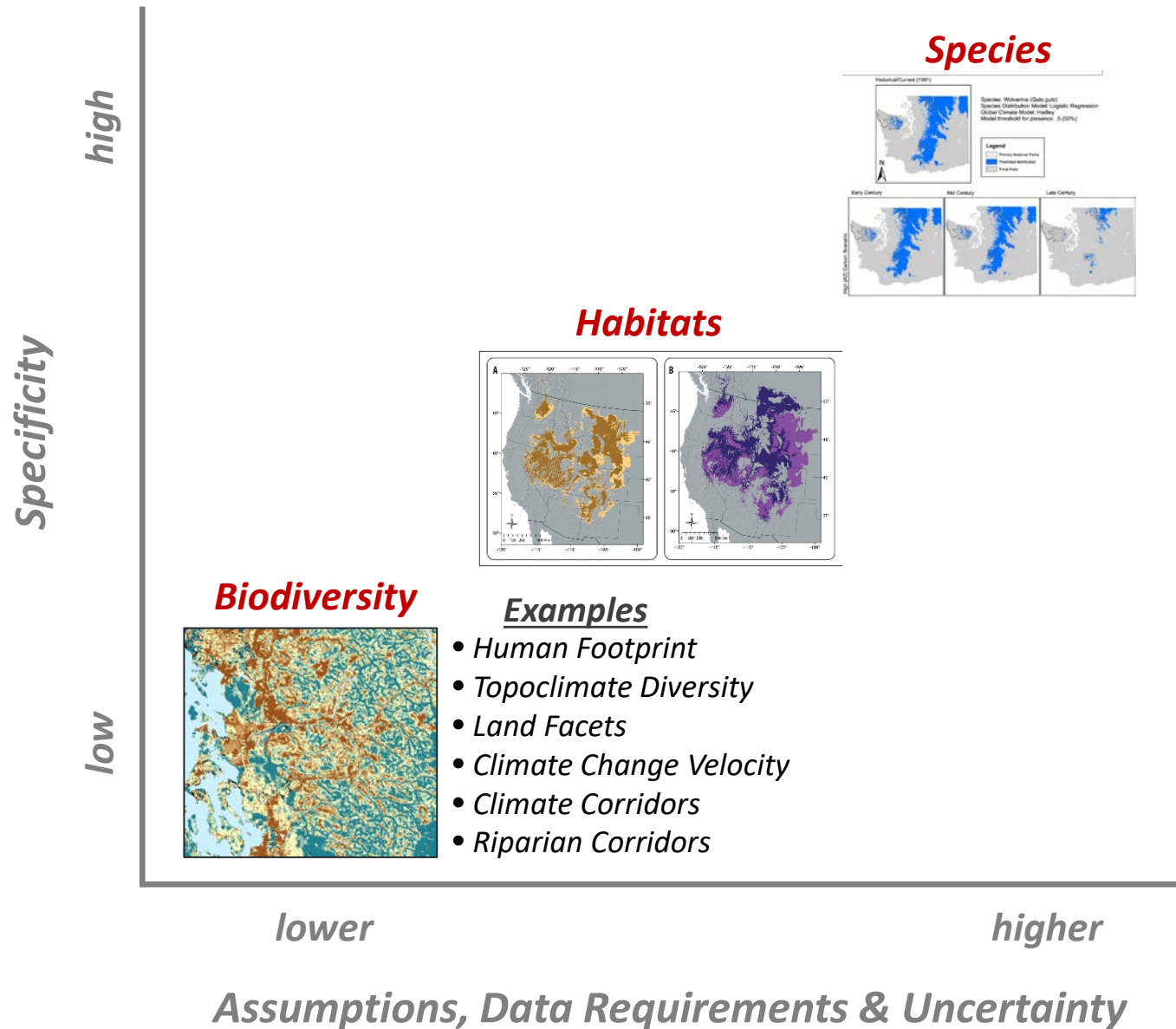


# ***Informing Local Land-use Decisions across Boundaries***





# Identifying Shared Conservation Targets



# ***Cascadia Spatial Priority Tool Overview***

## ***Purpose***

To identify and monitor spatial priority areas within Cascadia that support shared conservation targets over broad spatial and temporal scales in a changing climate.

## ***Benefit***

Providing a regional-scale perspective to local land-use decisions will add new information to help land managers meet conservation targets as well as facilitate coordination across land manager boundaries.

## ***Desirable Qualities***

- Free and easy to use interface
- Open-source
- Collaboratively designed and built
- Incorporate existing models/methods
- Spans all of 'Cascadia'
- Flexibility to include a range of conservation targets
- Frequently updated (allows for monitoring)
- Report & communications capabilities

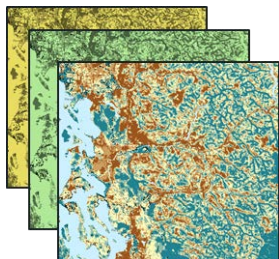


## *Benefits of Google Collaboration*

- Free and easy to use interface (Google Earth)
- Google Earth Engine
  - Wealth of spatial data
  - Massive computing power
  - Potential for dynamic models
  - Capability for automated alerts and reporting
- Google Earth Outreach
  - Storytelling
  - Voyager

# Cascadia Spatial Priority Tool Overview

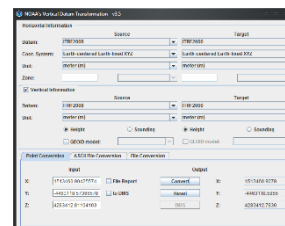
## Spatial Priority Data Layers



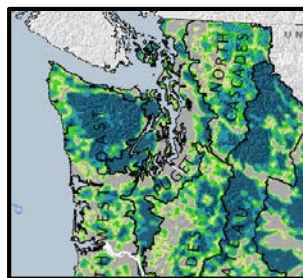
### Prototype inputs

- Landscape Integrity
- Topoclimate Diversity
- Land Facets
- Connectivity

## Parameters



- Spatial extent
- Inputs to include
- Method to combine inputs
- Input-specific parameters



Viewer  
(Google Earth)

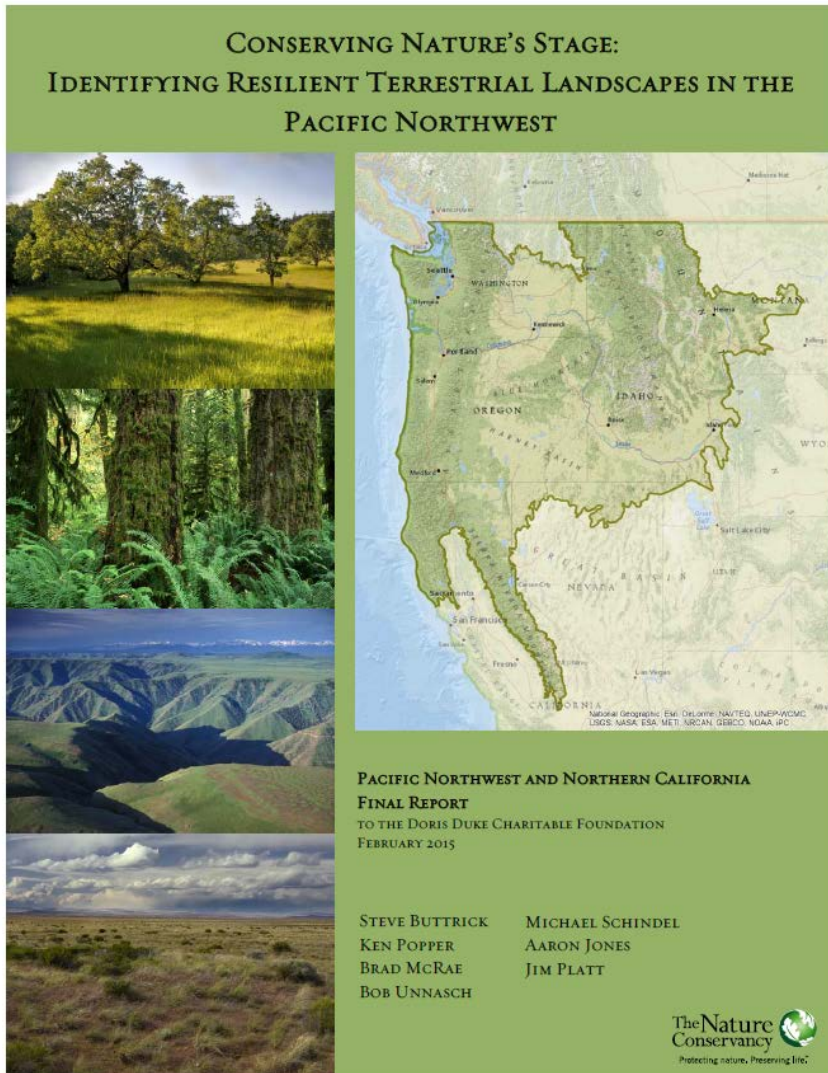
Reports

Alerts

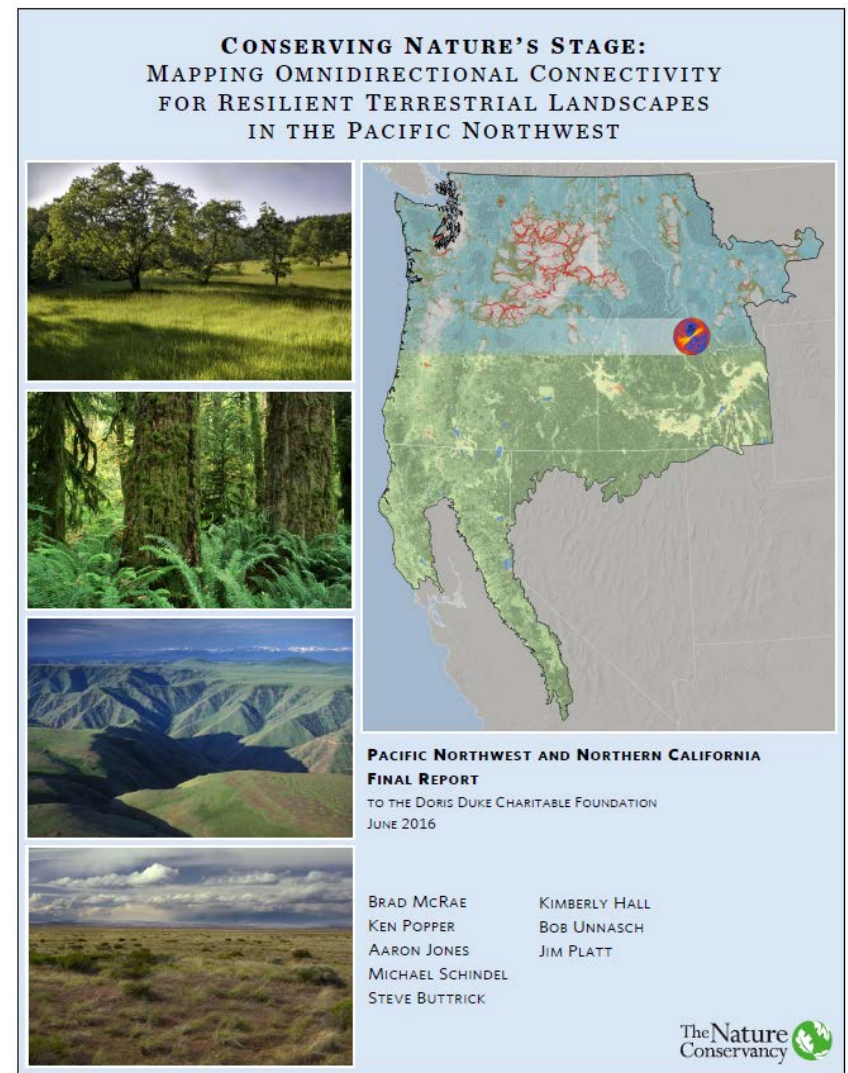
Communications  
(Google Earth  
Outreach &  
Voyager)



# Collaboration with The Nature Conservancy

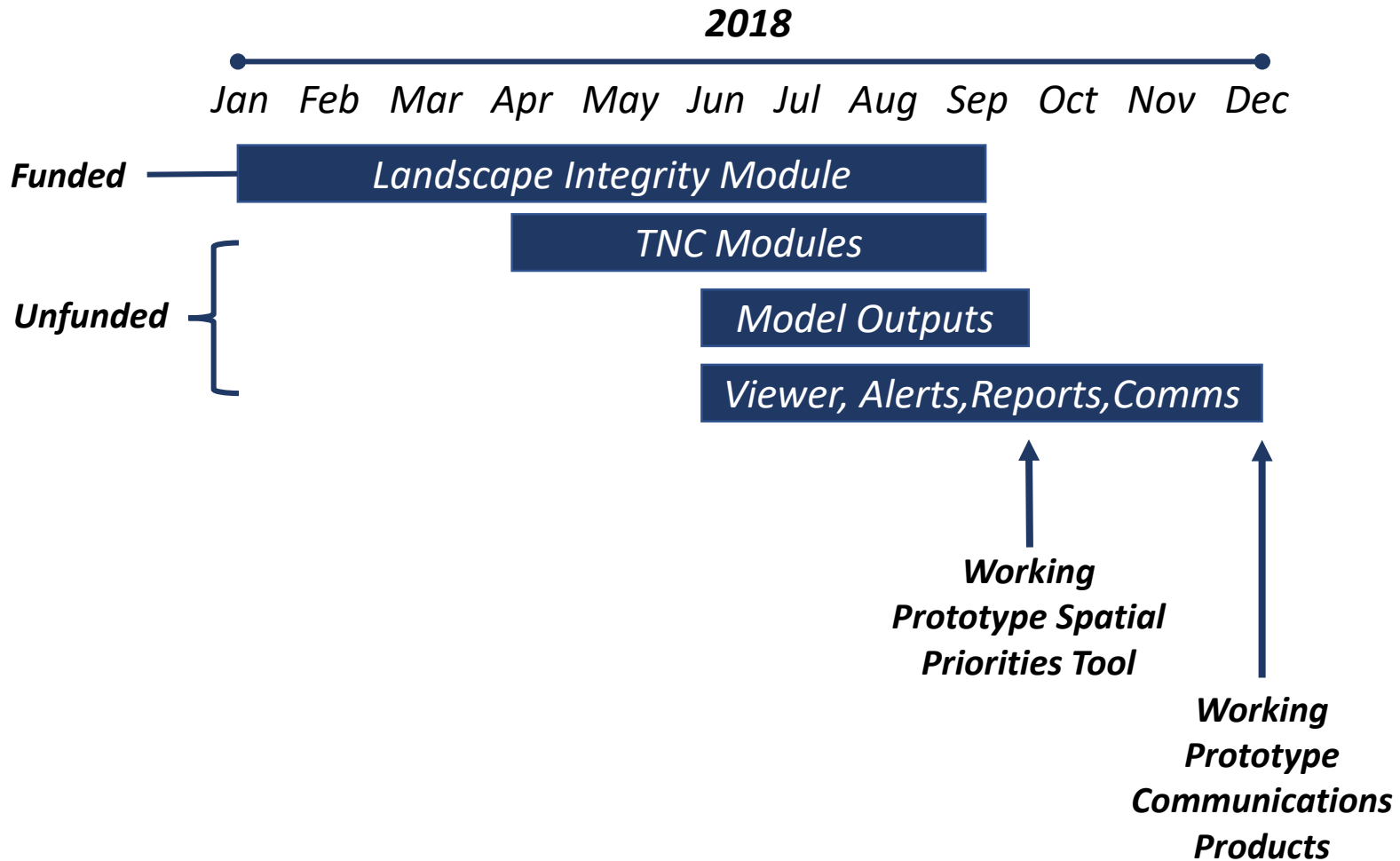


*Buttrick et al. 2015*



*McRae et al. 2016*

# *Prototype Tool Timeline*









# Leadership Team

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graph TD; LT[Leadership Team] --- PIT[Priority Issue Teams/Subgroups]; LT --- CST[Climate Strategy Team]; LT --- FFN[Full forum network: WildLinks annual gathering, website, enewsletter];
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Priority Issue  
Teams/Subgroups

Climate Strategy  
Team

Full forum network:  
WildLinks annual gathering, website, enewsletter





[www.cascadiapartnerforum.org](http://www.cascadiapartnerforum.org)