

# **Landscape Conservation Cooperatives**

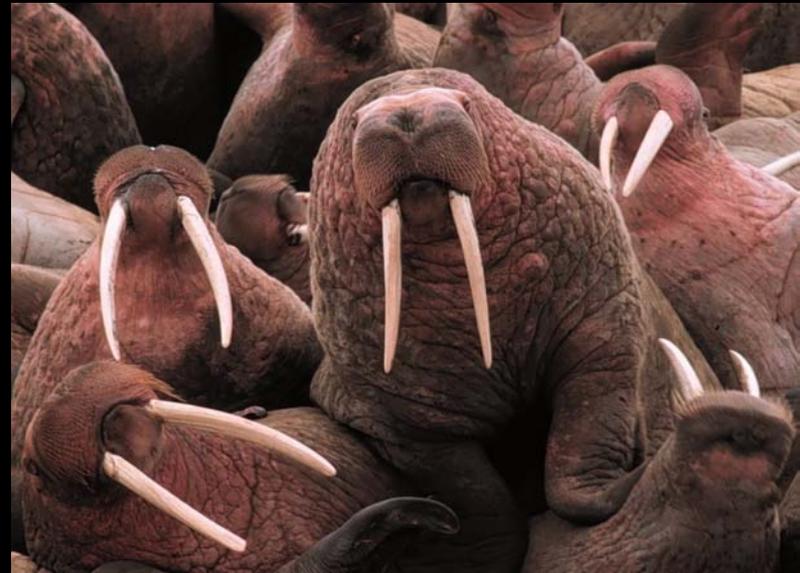
**A Collaborative Approach to  
Address Landscape Change**

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Pacific Southwest Region  
U.S. Fish and Wildlife Service**

# U.S. Fish and Wildlife Service

## Responsibilities:

- Endangered Species Act
- Marine Mammal Protection Act
- Coastal Barrier Resources Act
- Migratory Bird Treaty Act



# U.S. Fish and Wildlife Service

## Resources:

- 177 National Wildlife Refuges with coastal or marine component



# Climate Effects in the Western U.S.



- Rising sea levels
- Changes in precipitation
- Increased air / water temps
  
- Altered stream flows
- Changes in plant and animal distributions
- New ecological relationships

# Other Landscape Scale Changes

- Habitat Loss
- Invasive Species
- Wildfire
- Plant and Animal Disease



What's Needed – A new approach linking science and management to deal with large scale conservation issues

# Department of the Interior Responds

- “Plan for a Coordinated, Science-Based Response to Climate Change Impacts on our Land, Water, and Wildlife Resources”
- DOI plan includes Climate Science Centers (CSCs) and Landscape Conservation Cooperatives (LCCs)

# Climate Science Centers (CSCs)

- University-based regional science providers
- CSC science/research agenda developed by regional conservation stakeholders
- CSCs provide scientific information, tools and techniques to support natural and cultural resource managers and decision makers

# DOI Climate Science Centers

- Alaska - University of Alaska , Fairbanks
- Northwest - Oregon State University (Lead)  
University of Washington  
University of Idaho
- Southwest - University of Arizona, Tucson (Lead)  
University of California, Davis  
University of California, Los Angeles  
Desert Research Institute, Reno  
University of Colorado, Boulder  
Scripps Institution of Oceanography

# Landscape Conservation Cooperatives

- Self-directed, applied science - management partnerships created to address conservation challenges at broad, ecoregional scales
- LCC partnerships include both public and private groups that have complementary conservation goals

# Potential LCC Partners

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- Federal, State, Local Government Agencies
- Native American Tribes
- Existing Regional Conservation Partnerships
- Nongovernmental Organizations
- Colleges / Universities
- Other Public and Private Groups

# LCC and CSC Science

Fundamental Science

Applied Science



CSC



LCC

Model climate  
change effects on  
freshwater streams

Develop and test  
management options  
for freshwater species

# LCC Applied Science Products

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- Science-based decision support tools
- Species and habitat vulnerability assessments
- Inventory and monitoring protocols
- Biological and geospatial data
- Analyses as determined by LCC partners

# Landscape Conservation Cooperatives

## The Power of Partnerships



LCC partnerships enable a level of conservation that no single agency or organization can accomplish alone

# What Benefits does an LCC Provide?

LCCs provide the partners opportunities to –

- Develop, access, and share science products
- Leverage funding, information, and technical expertise
- Collaborate and communicate on matters of common interest

# Landscape Conservation Cooperatives

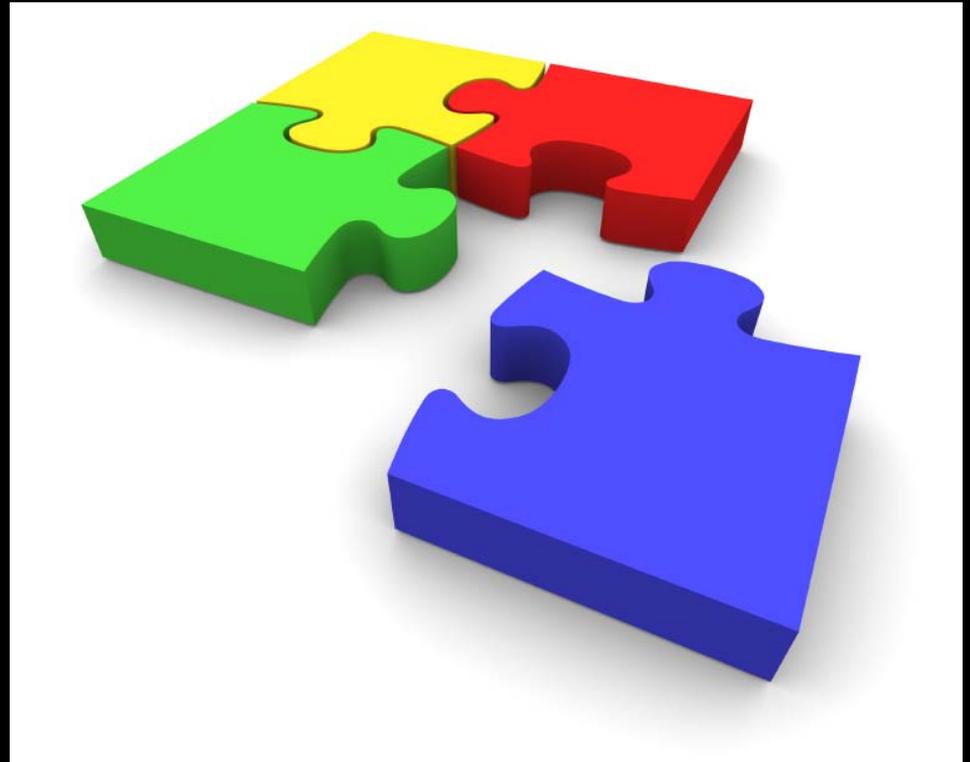
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## What Are They Not?

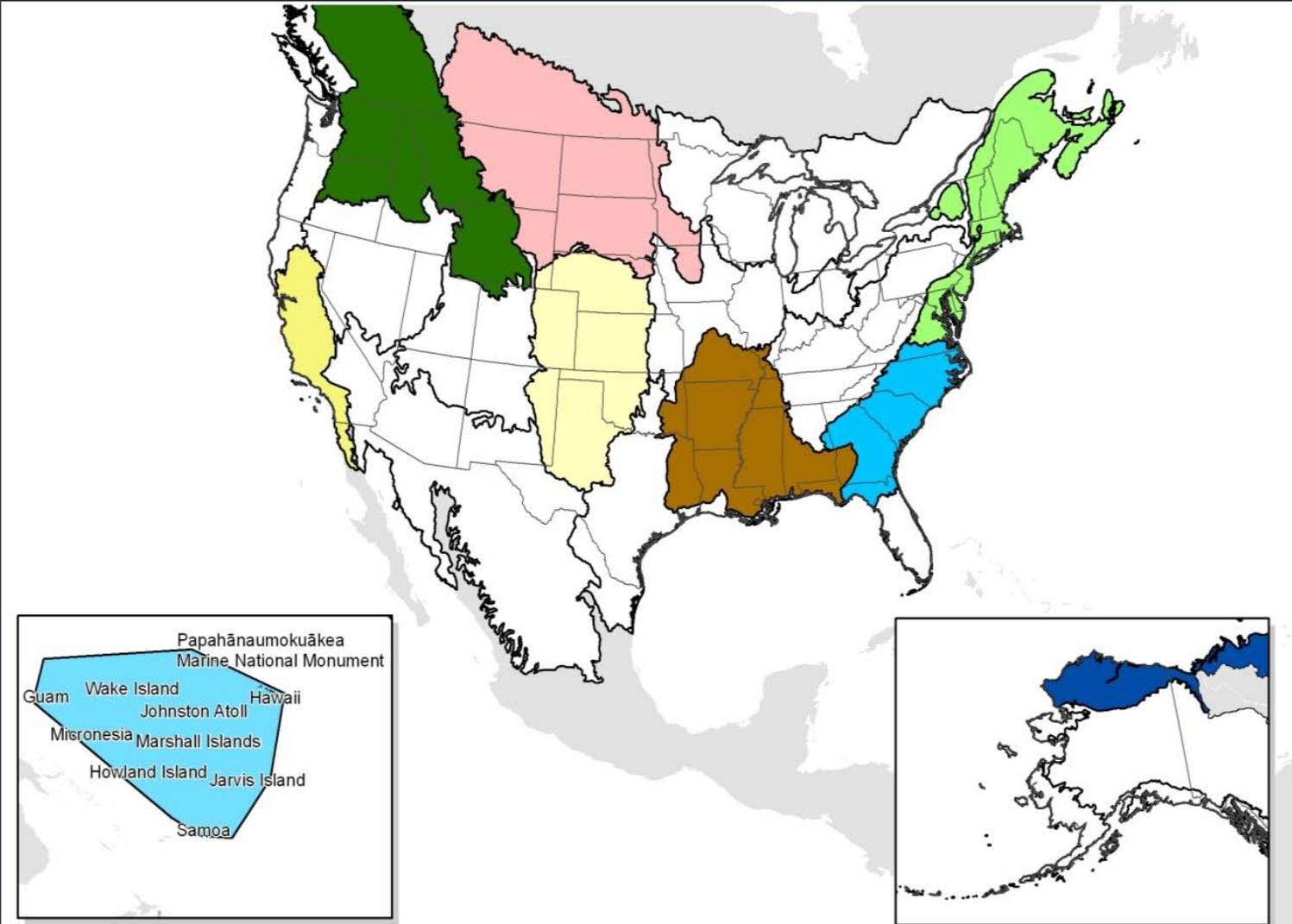
- Conservation funding agencies
- Replacements for existing organizations, groups, or partnerships
- Regulatory in nature

# LCC Key Components

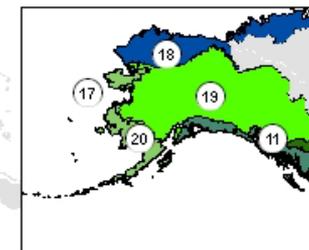
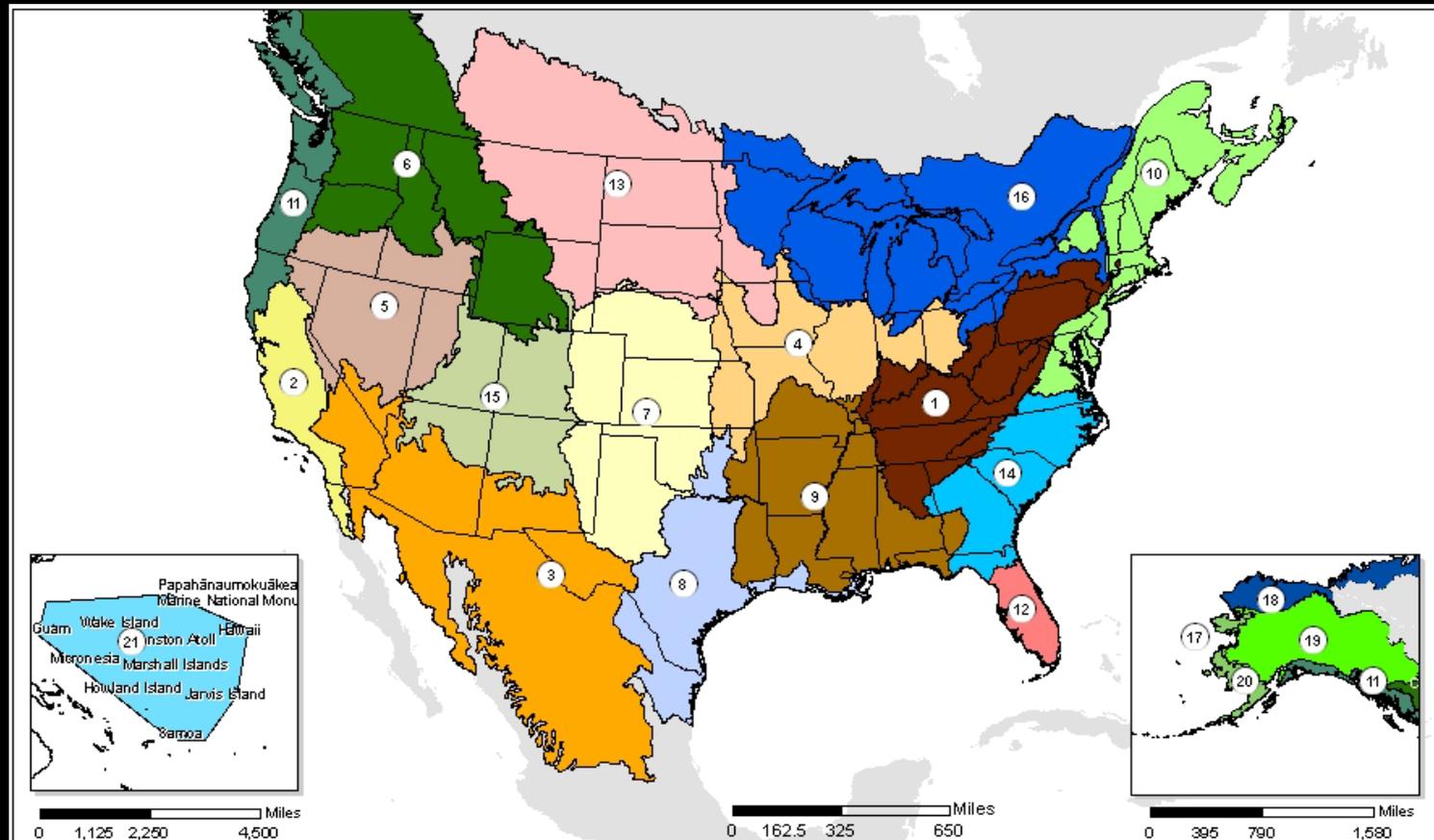
- Steering committee of partners
- LCC coordinator
- Science coordinator
- Planning and technical staff
- GIS capability
- Communications



# LCCs Established in 2010



# National LCC Network



- |   |                                   |                                     |                                  |
|---|-----------------------------------|-------------------------------------|----------------------------------|
| 1. Appalachian                              | 7. Great Plains                   | 13. Plains and Prairie Potholes     | 19. Northwestern Interior Forest |
| 2. California                               | 8. Gulf Coast Prairie             | 14. South Atlantic                  | 20. Western Alaska               |
| 3. Desert                                   | 9. Gulf Coastal Plains and Ozarks | 15. Southern Rockies                | 21. Pacific Islands              |
| 4. Eastern Tallgrass Prairie and Big Rivers | 10. North Atlantic                | 16. Upper Midwest and Great Lakes   | Unclassified                     |
| 5. Great Basin                              | 11. North Pacific                 | 17. Aleutian and Bering Sea Islands |                                  |
| 6. Great Northern                           | 12. Peninsular Florida            | 18. Arctic                          |                                  |

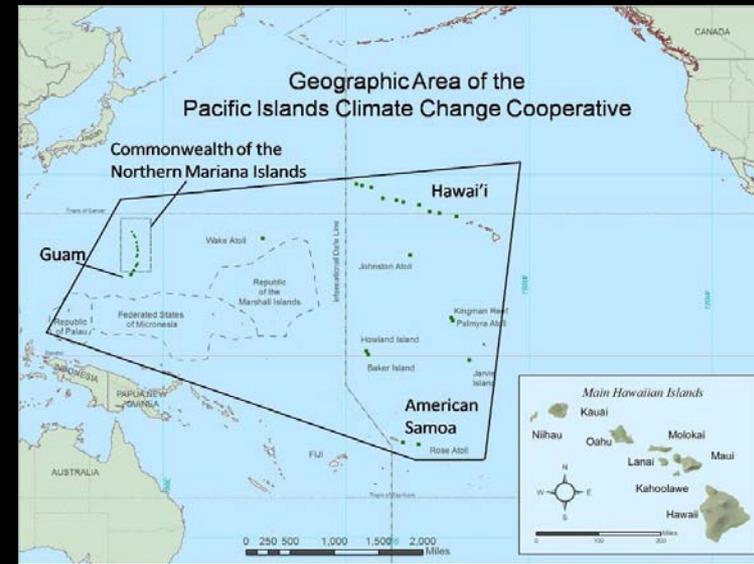
# Pacific Islands LCC



Hawaii Conservation Alliance

Leaders in Environmental Management, Research and Education

- Steering Committee:
  - Federal, State Agencies
  - Univ of Hawaii, NGOs
- Science Activities:
  - Bioclimate Projections
  - Mapping Sea Level Rise on Oahu and Maui
  - Climate and Ecosystem Monitoring



# Pacific Islands LCC



Hawaii Conservation Alliance

*Leaders in Environmental Management, Research and Education*

Coordinator:

Deanna Spooner

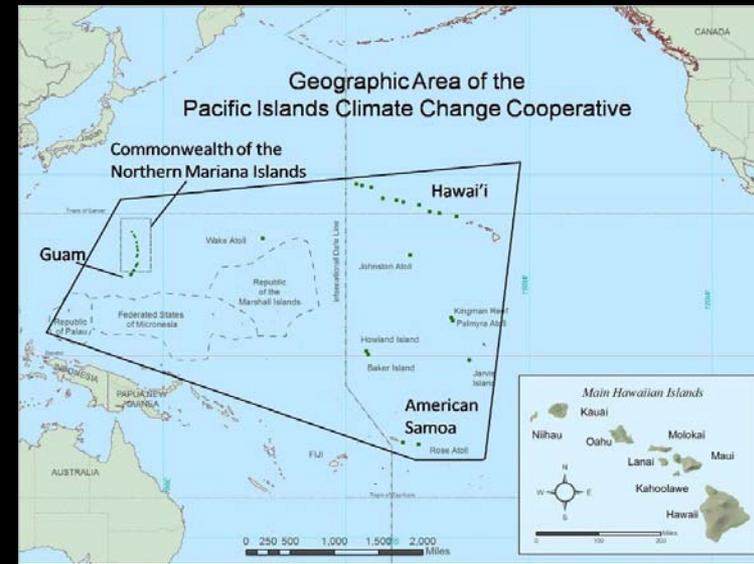
[Deanna.Spooner@piccc.net](mailto:Deanna.Spooner@piccc.net)

(808) 687-6175

Science Coordinator:

[Jeff.Burgett@piccc.net](mailto:Jeff.Burgett@piccc.net)

(808) 687-6175



# California LCC



- Interim Steering Committee
- Initial focus on SF Bay and Central Valley, expanding to Central and South Coasts
- Science Activities:
  - Vulnerability Assessments
  - Decision Support Tools
  - Habitat Connectivity



# California LCC



Coordinator:

Debra Schlafmann

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(916) 414-6455

Science Coordinator:

Rebecca Fris

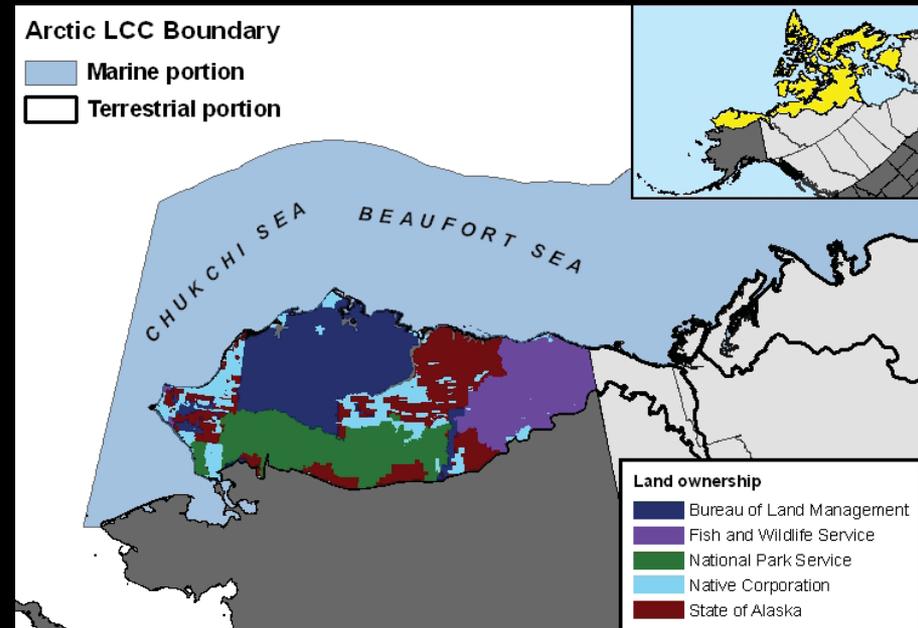
[Rebecca\\_Fris@fws.gov](mailto:Rebecca_Fris@fws.gov)

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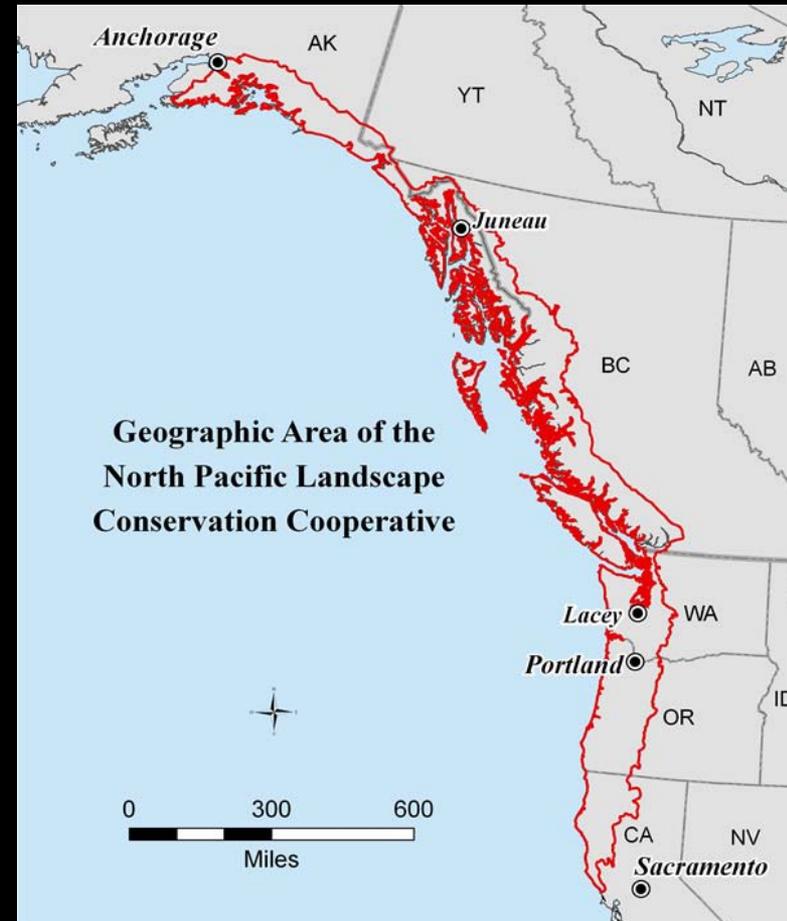
# Arctic LCC

- Steering Committee:  
*Arctic Climate Change Executive Roundtable*
- Science Activities:
  - Vegetation Change
  - Coastal Processes
- Philip Martin, USFWS  
[philip\\_martin@fws.gov](mailto:philip_martin@fws.gov)  
(907) 456-0325



# North Pacific LCC (2011)

- Preliminary Discussions Underway
- Mike Carrier, USFWS  
Portland, OR  
[Michael\\_Carrier@fws.gov](mailto:Michael_Carrier@fws.gov)  
(503) 231-6172



# Summary

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- LCCs are applied conservation science partnerships that focus on landscape-scale challenges
- We welcome your active participation on LCC committees and working groups
- For more information visit –  
<http://www.fws.gov/science/shc/lcc.html>

