



NORTH CENTRAL  
**CLIMATE  
SCIENCE**  
CENTER

---

Department of Interior  
Jeff Morisette, PhD.

Missouri Basin: Extreme Events and Drought Resiliency  
Rapid City, SD  
September 17 – 18, 2014



# Secretarial Order 3289: DOI Climate Science Centers



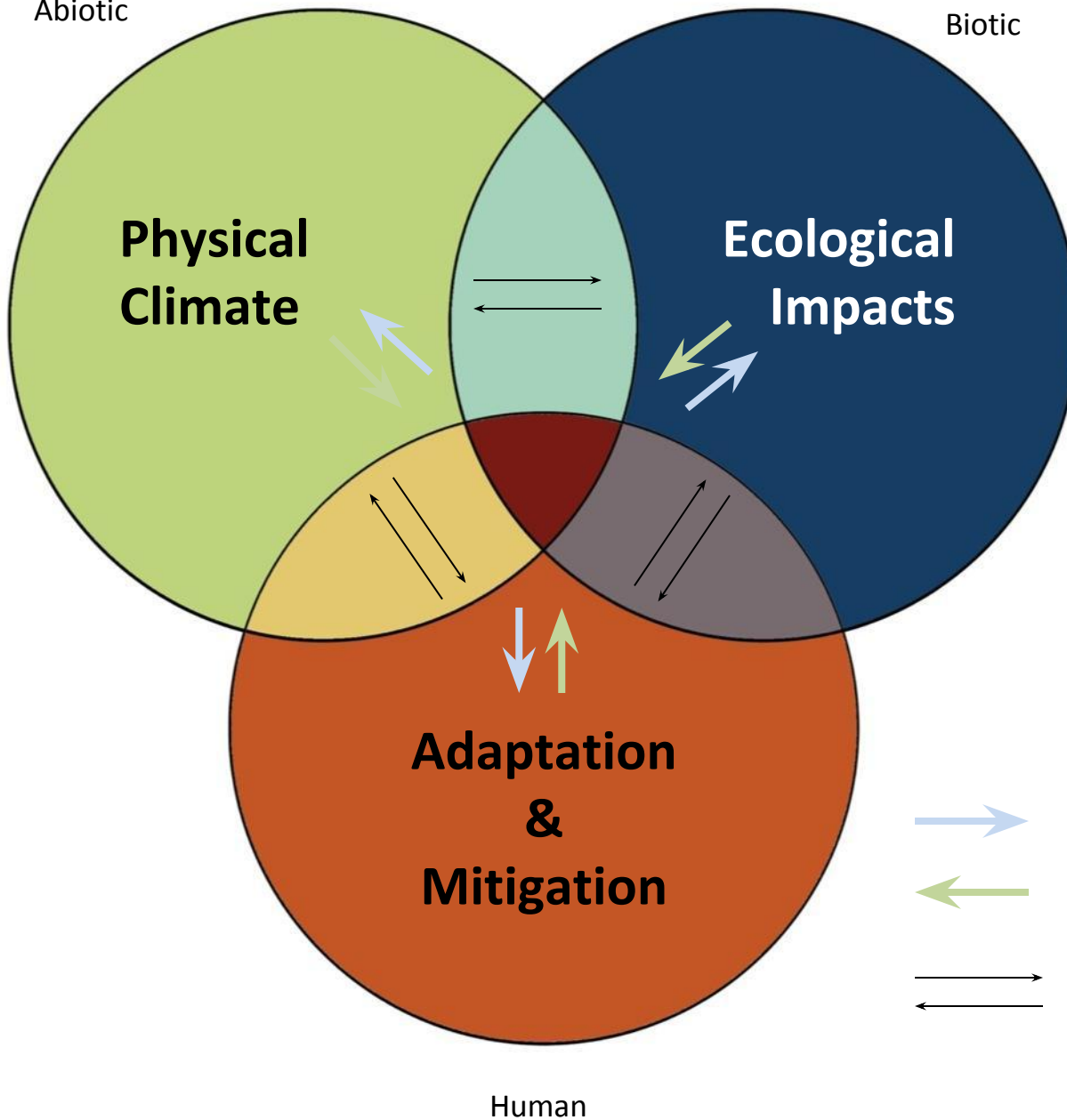
Mission:  
To provide the best  
possible climate science  
to Department of Interior  
land managers



Abiotic

Biotic

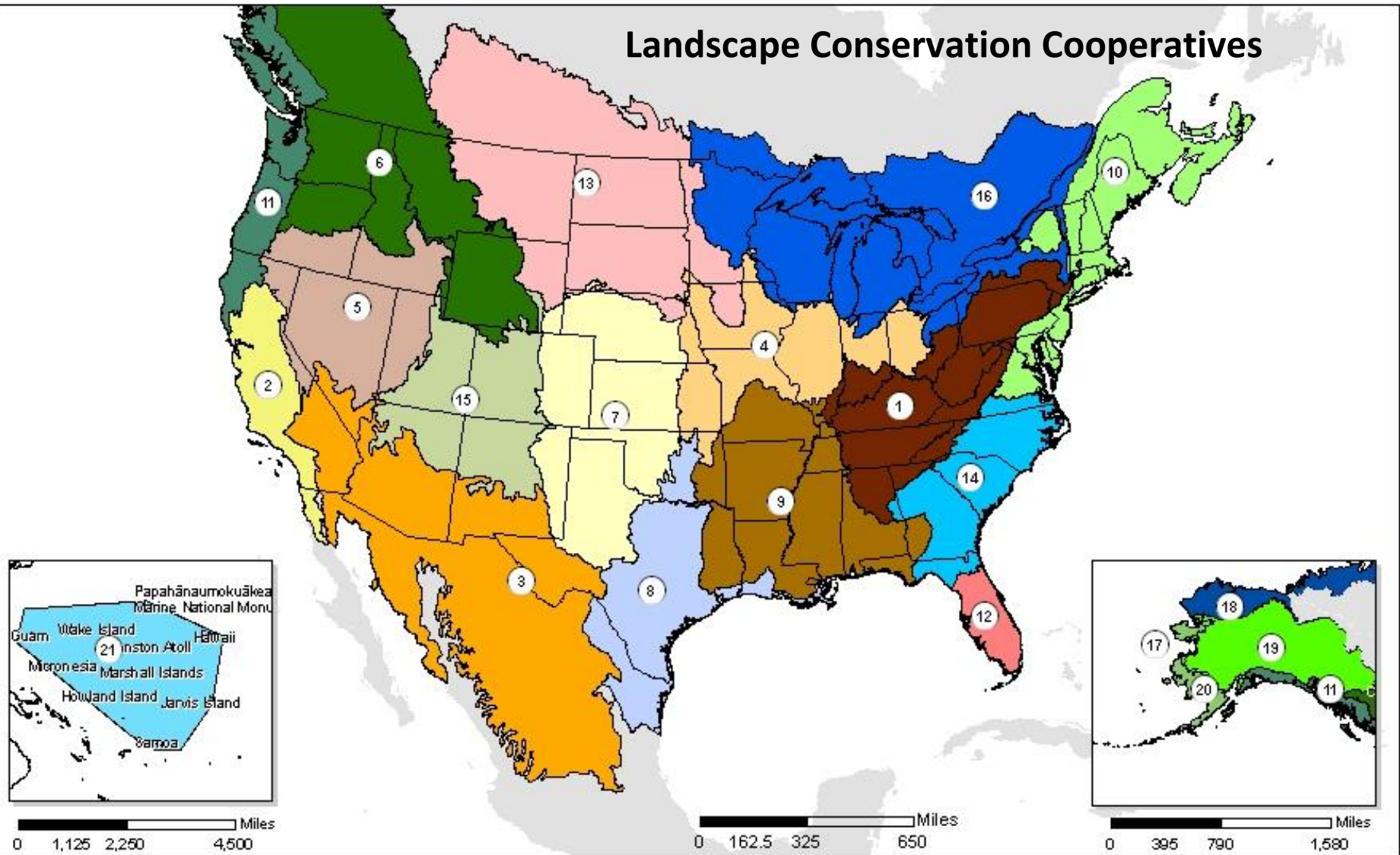
# NC CSC's Foundational Science Areas



Human



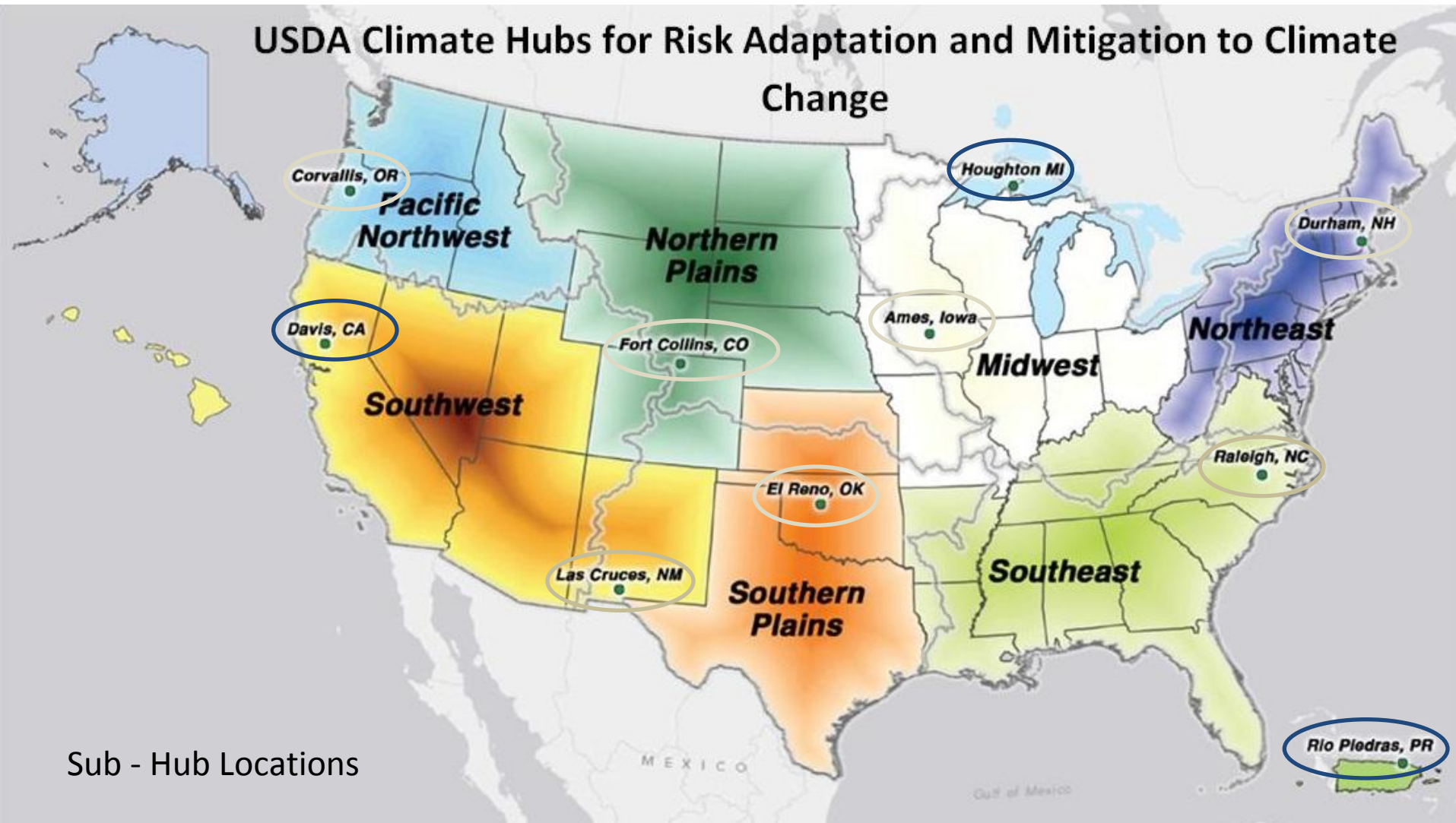
# Landscape Conservation Cooperatives



- |   |                                   |                                     |                                  |
|---|-----------------------------------|-------------------------------------|----------------------------------|
| 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                          |                                  |

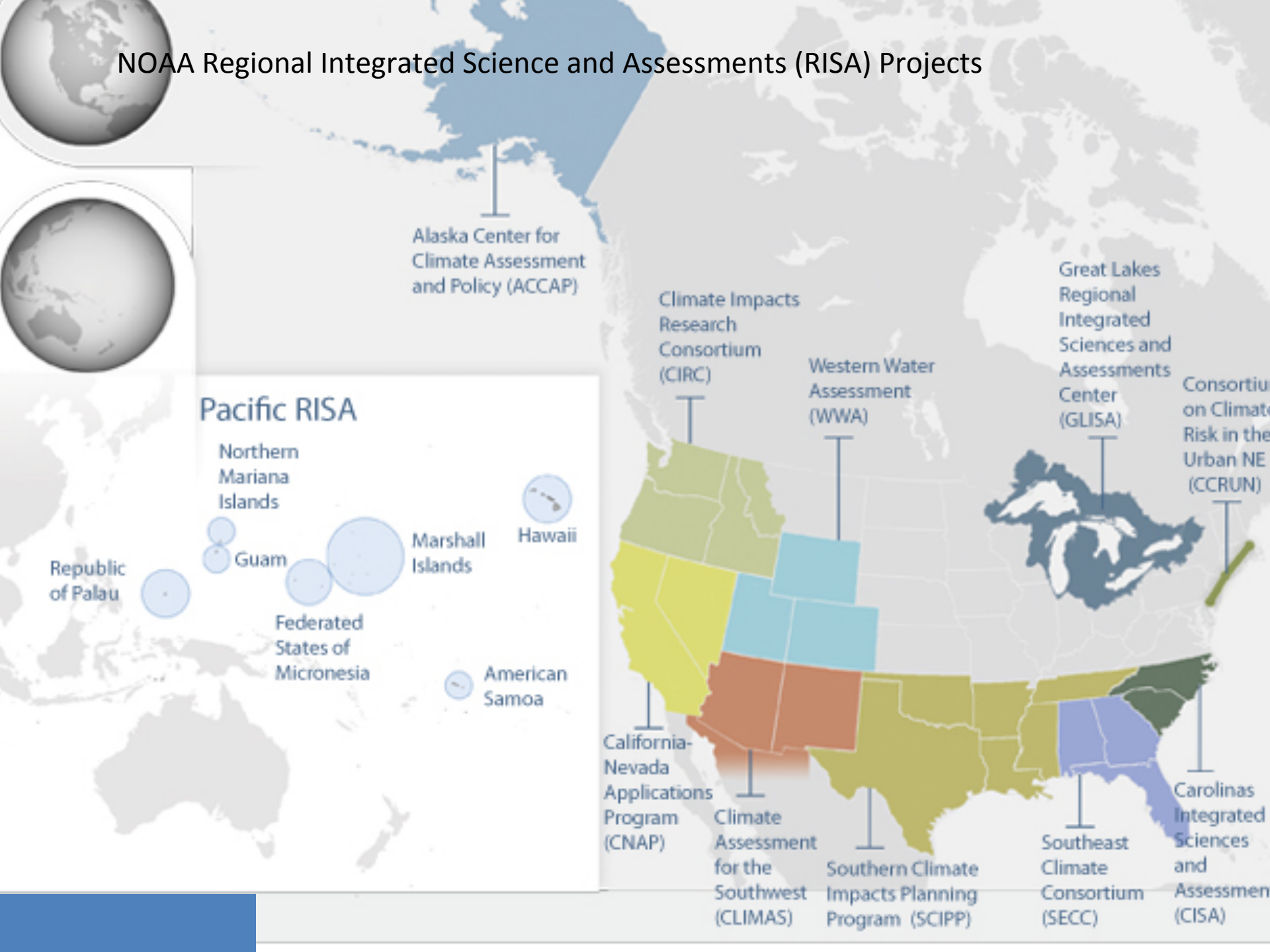
# USDA Climate Hub Regions

## USDA Climate Hubs for Risk Adaptation and Mitigation to Climate Change



Sub - Hub Locations

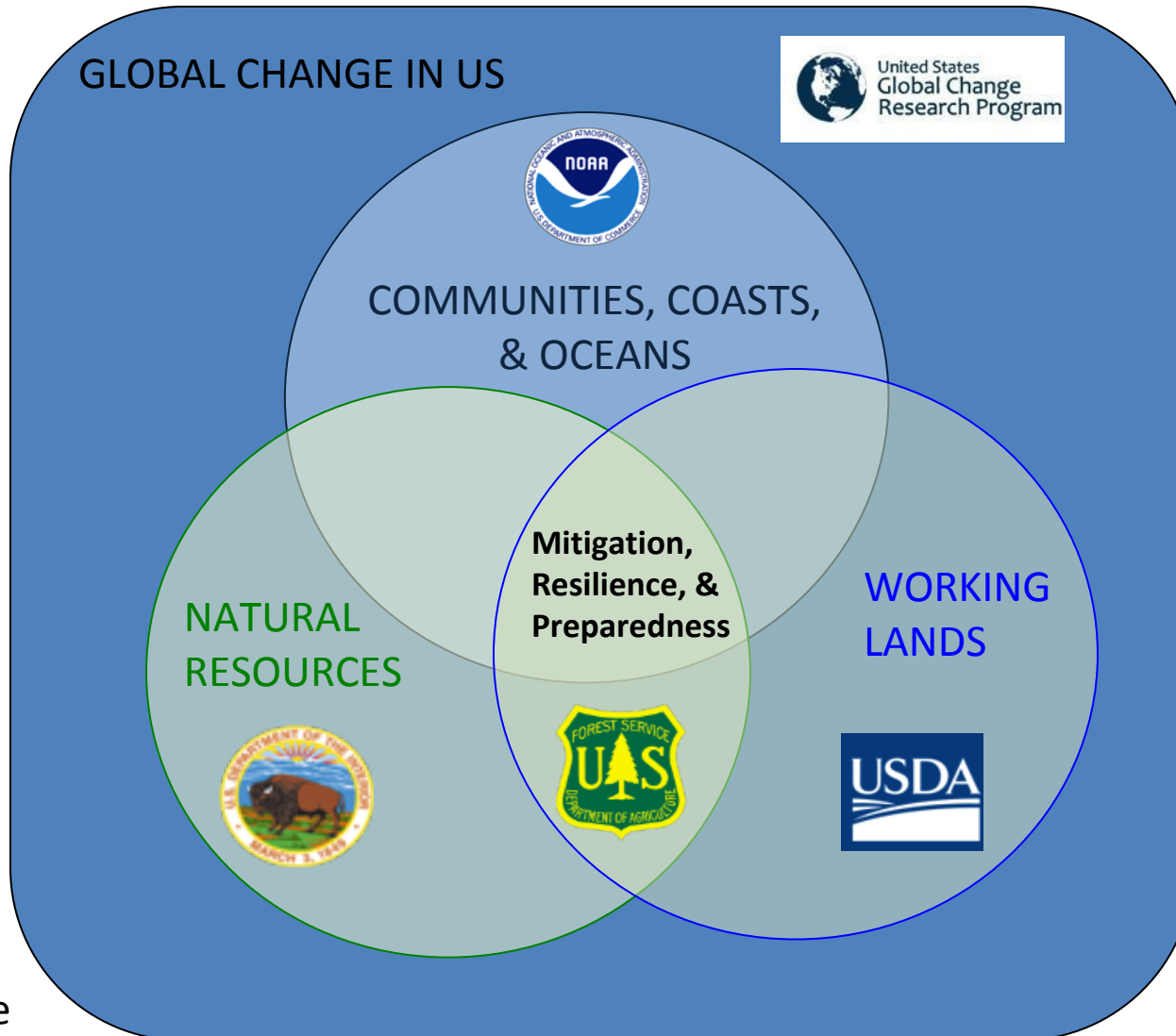
# NOAA Regional Integrated Science and Assessments (RISA) Projects





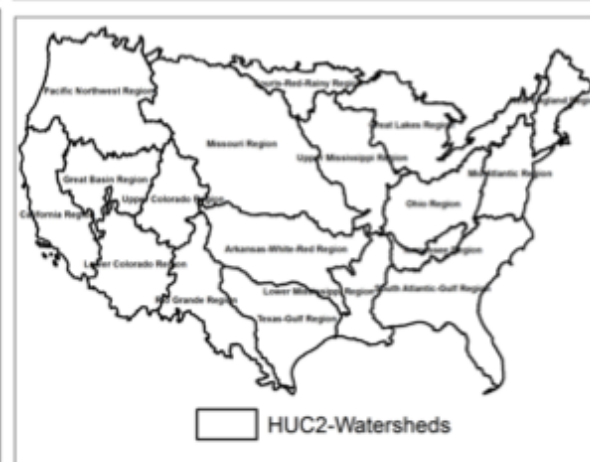
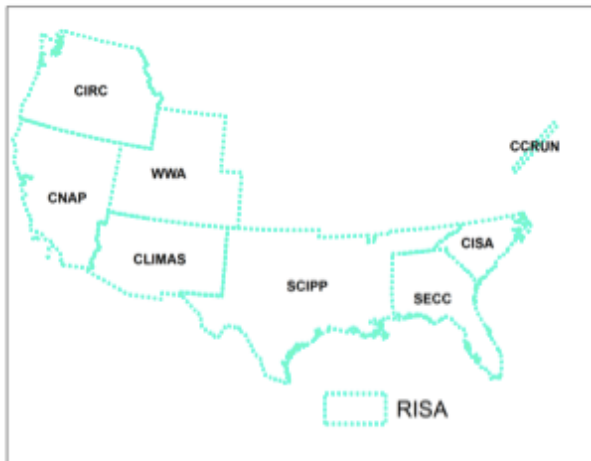
# Why regional at each agency?

We can't respond to global change in isolation and most management planning and actions are at best regional



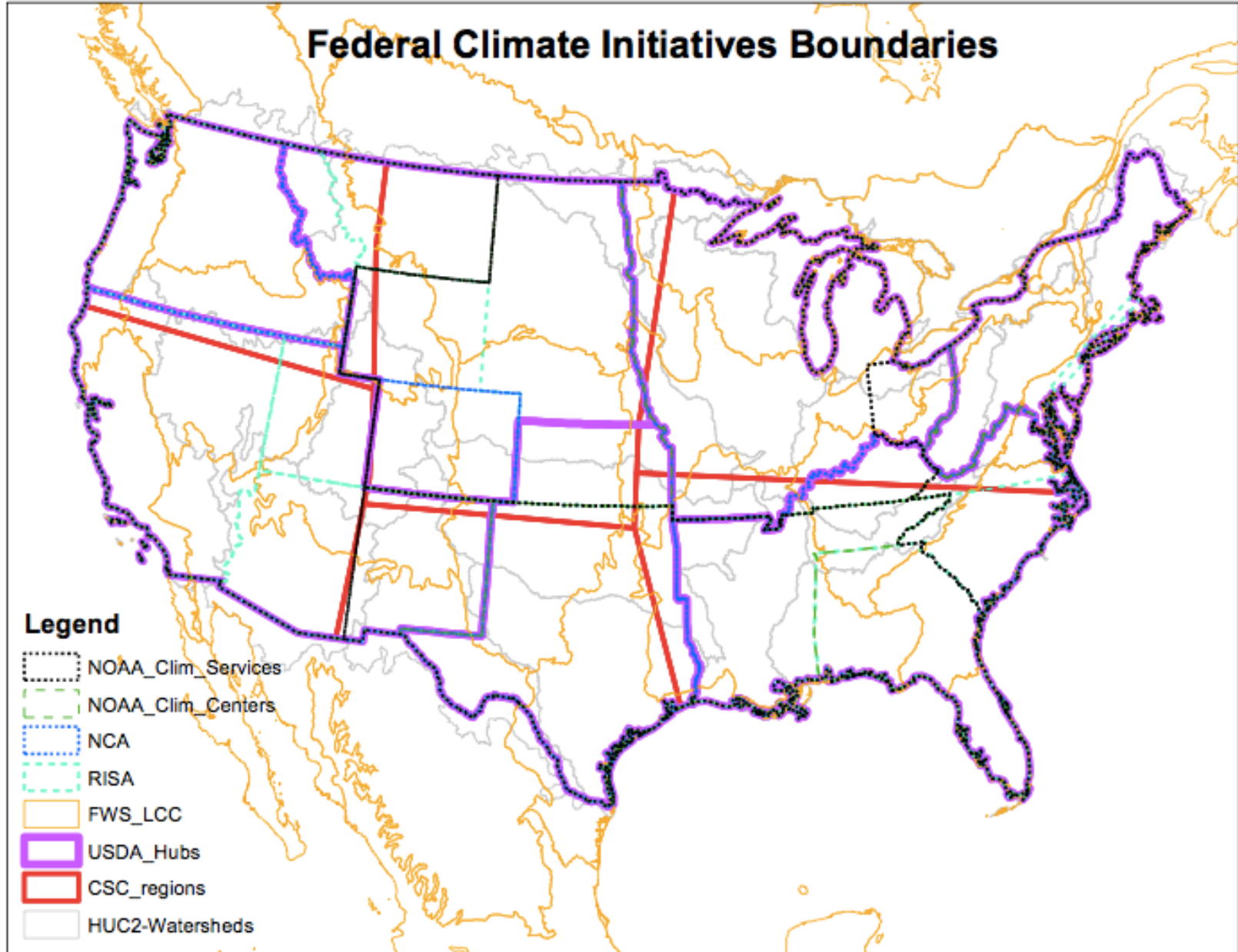
Additional  
circles could  
be added  
for:  
EPA,  
DoE,  
BIA





# **Federal Climate Initiatives Boundary Comparison**

7 climate initiative regions implies 149 polygons



# Guidelines for Considering Traditional Knowledges in Climate Change Initiatives

Guidelines developed by a group of indigenous persons, staff of indigenous governments and organizations, and experts with experience working with issues concerning traditional knowledges.

## ***Workgroup Participants:***

Karletta Chief, University of Arizona

Ann Marie Chischilly, Institute for Tribal Environmental Professionals

Patricia Cochran, Alaska Native Science Commission

Mike Durglo, Confederated Salish and Kootenai Tribes

Preston Hardison, Tulalip Tribes

Joe Hostler, Yurok Tribe

Kathy Lynn, University of Oregon

Gary Morishima, Quinault Management Center

Don Motanic, Intertribal Timber Council

Jim St. Arnold, Great Lakes Indian Fish and Wildlife Commission

Garrit Voggesser, National Wildlife Federation

Kyle Powys Whyte, Michigan State University

Daniel Wildcat, Haskell Indian Nations University

Sue Wotkyns, Institute for Tribal Environmental Professionals

## ***Federal partners involved with reviewing and commenting on this document:***

Monique Fordham, US Geological Survey

Frank Kanawha Lake, USDA Forest Service Pacific Southwest Research Station.

# Engaging with Tribes = **Reciprocity**

Principles for Collaboration between Tribes, TK  
Holders, Federal Agencies and Other Non  
Indigenous Entities

- **Integrity**
- **Validity**
- **Fairness and Equity**
- **Respect**
- **Recognition**



# Guideline 7: Recognize the role of multiple knowledge systems

“...Create opportunities for partnerships involving TKs in climate change initiatives **only when it is requested by and includes leadership of tribes** in the development of these programs.”