

Desert LCC



Landscape Conservation Cooperatives (LCCs)

- Secretarial Order No. 3289 establishes Landscape Conservation Cooperatives, which focus on on-the-ground strategic conservation efforts at the landscape level

What is an LCC?

- In 2010, the Department of Interior developed a plan for a coordinated, science-based response to climate change impacts on our land, water, and wildlife resources. LCCs are the applied science branch of this strategy. Each LCC will function in a specific geographic area, and will form a national and ultimately international network. Each LCC is a management-science partnership.

DOI Landscape Conservation Cooperatives



Legend

Reclamation Offices

- Area Office
- Region Office
- Reclamation Regions
- State Boundaries

DOI Landscape Conservation Cooperatives

- 1. Appalachian
- 2. California
- 3. Desert
- 4. Eastern Tallgrass Prairie and Big Rivers

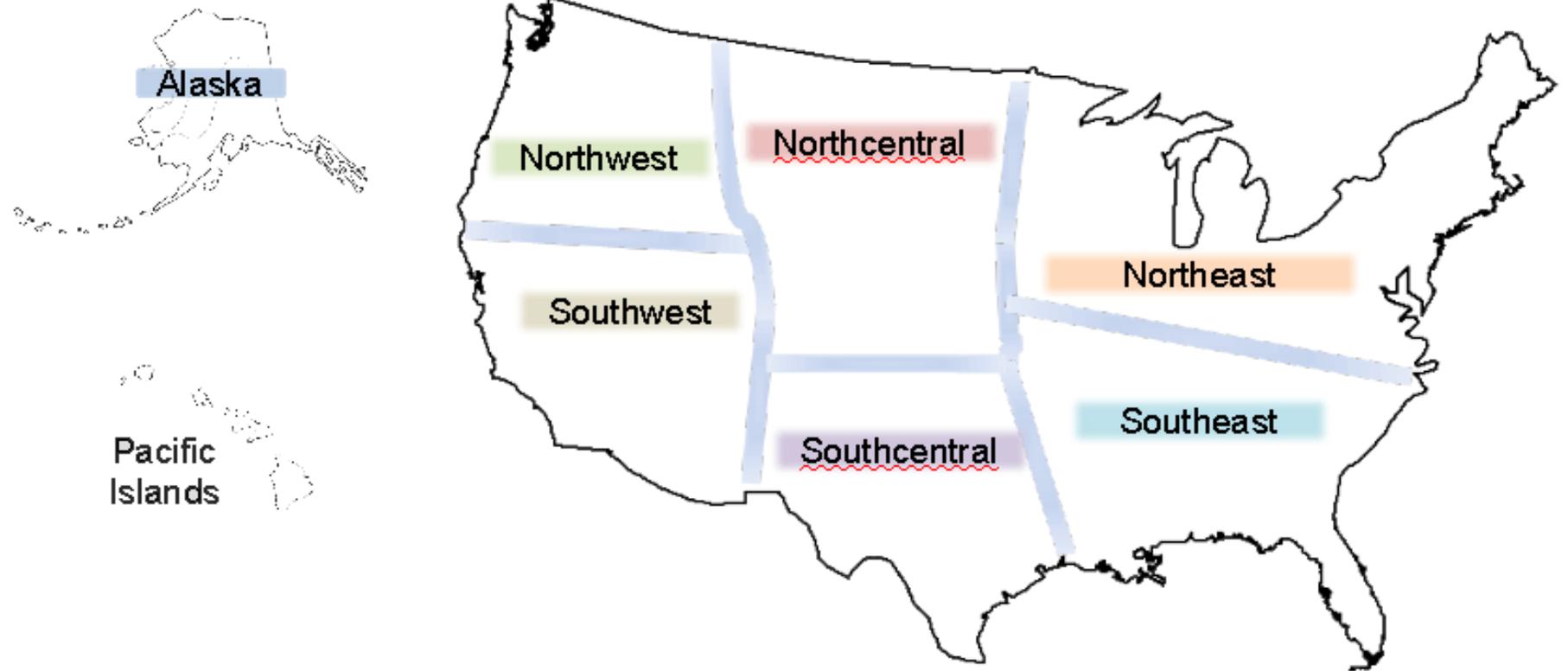
- 5. Great Basin
- 6. Great Northern
- 7. Great Plains
- 8. Gulf Coast Prairie
- 9. Gulf Coastal Plains and Ozarks

- 11. North Pacific
- 13. Plains and Prairie Potholes
- 15. Southern Rockies
- 16. Upper Midwest and Great Lakes

Climate Science Centers (CSCs)

- Expanding scope and geographic reach of USGS National Climate Change and Wildlife Center by establishing eight regional Climate Science Centers
- CSCs will provide scientific information, tools and techniques that land, water, wildlife and cultural resource managers and other interested parties can apply.

CSC Locations



LCCs and CSCs Science

Fundamental Science

Applied Science



CSCs

LCCs

Downscaling
general circulation
models to project
future climate

Options for
managing aquatic
species with reduced
stream flow

How will the LCCs Help?

- The LCC will facilitate:
The delivery of applied science to inform resource management decisions that address climate change and other regional scale stressors (e.g. drought)
- Informing managers regarding potential impacts of climate change as the partners develop adaptation strategies
- On-going dialog between sciences and land managers to create a mechanism for informed conservation (planning, delivery, monitoring)



LCC – Example Science – Shared Science Capacity

- Inventory and Monitoring of bonytail chub in the Upper Colorado River Basin.
- Measurement and mapping of aquifer levels in a particular area (Moab-Spanish Valley) and updates or projections given temperature and precipitation variability.
- Definition of restoration targets

Desert LCC – Geographic Extent



Encompasses portions of 5 states as well as portions of at least ten states in Northern Mexico. The area is topographically complex including three different deserts (Mojave, Sonoran, and Chihuahuan), grasslands and valley bottoms, and isolated mountain ranges known as the “Sky Islands.”

The LCC also includes several large river systems, including the lower Colorado, Gila, Rio Grande, San Pedro, and Verde Rivers.

What types of resource management issues will be addressed by the Desert LCC?

- The effect of long-term drought on the composition, abundance, and distribution of species
- Identifying “tipping points” that may changes in plant community structure (e.g. pinyon die-off in Arizona and New Mexico)
- The effect of reduced water availability on vegetation , wildlife and human populations

What types of resources management issues will be addressed by the Desert LCC? (cont...)

- Effects of changes in the timing of snowmelt runoff and snowpack decline
- Effects of soil dryness and increasing air temperature makes the southwest more susceptible to wildfires
- Change in fire regimes caused by increasing invasion of non-native grasses
- Effects of warming on insect outbreaks and increasing tree mortality

Desert LCC - Next Steps

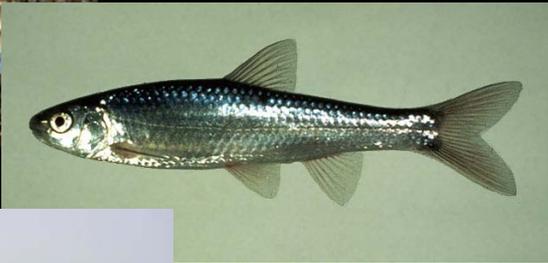
During Fiscal Year 2010, Reclamation and the Service will reach out to other Federal land managers, State, Tribes, and non-governmental organizations to establish the Desert LCC with primary goals:

- Developing a shared conservation vision for the Desert LCC
- Determining threats to priority resources, habitats, species, and science needs
- Identifying existing resource and science partnerships relevant to the LCC



Desert LCC - Next Steps - specific

Outreach Activities



- At least three outreach meetings (Mojave, Sonoran, Chihuahuan) between June and August 2010.
- One outreach workshop focused on science needs and coordination in the major river basins (Colorado, Rio Grande)

Desert LCC - Points of Contact

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