

Landscape Conservation Cooperatives

Responding to National-scale Stressors

The conservation community is facing unprecedented challenges, climate change among them. The science must evolve to respond. To that end, the U.S. Fish and Wildlife Service and the U.S. Geological Survey invite you to join us in establishing Landscape Conservation Cooperatives. These science partnerships, consisting of federal agencies, states, tribes and private organizations, will collaboratively develop science-based decision-support tools for all of our field offices to implement on-the-ground conservation. Success will mean all partners working together to support landscapes capable of sustaining abundant, diverse and healthy populations of fish, wildlife and plants.

With an initial federal investment of \$25 million in FY2010, we will begin forming eight LCCs across the country, including the South Atlantic LCC in the Southeast. As partner interest and funding permits, we will also move forward on four others in the Southeast, which we have named Peninsular Florida, Gulf Coast Plain Ozarks, Appalachians and Gulf Coast Prairie.

Landscape Conservation Cooperatives are:

- Self-directed, applied conservation science partnerships that will drive success at landscape scales.
- A seamless, national network of interdependent partnerships between the U.S. Fish and Wildlife Service, the U.S. Geological Survey, other federal agencies, states, tribes, NGOs, universities and other entities which

will inform resource management decisions to address national-scale stressors, including climate change.

- Scientific and technical support for landscape-scale conservation in the adaptive management framework.
- Closely integrated with Regional Climate Impact Response Centers to conduct site-specific climate impact studies and develop landscape-scale conservation plans.

What does a Landscape Conservation Cooperative look like? To function as a national framework, consistency is essential. Each LCC will have on staff or through contract:

- A steering committee of top-level representatives from partner organizations to provide management direction and set priorities;
- An LCC coordinator;
- A science and technology coordinator;
- GIS capability;
- Population modeling capability;
- Monitoring and evaluation capability; and
- Decision analysis expertise.



Piedmont NWR by J&K Hollingsworth

Landscape Conservation Cooperatives do:

- Support biological planning, conservation design and adaptive management.
- Share information and data, improve products, and prioritize and coordinate research.
- Design inventory and monitoring programs.
- Help partners identify common goals and priorities to target the right science in the right places for efficient and effective conservation.
- Support landscapes capable of sustaining abundant, diverse and healthy populations of fish, wildlife and plants.
- Provide a strong link between science and conservation delivery.
- Continue to take advantage of state-of-the-art technology and cutting edge science that is peer reviewed.



- Build upon explicit biological management priorities and objectives, and science available from existing partnerships.
- Regularly evaluate the effectiveness of scientific information and conservation actions.
- Maintain scientific credibility and provide support for management decisions by publishing new methods, controversial findings and other noteworthy products in peer-reviewed journals.
- Focus primarily on priority species and habitats, identified by the partnership.
- Provide a forum for continuous exchange and feedback among partners, scientists, bio-climate modelers and fish, wildlife and habitat managers.
- Vulnerability assessments for fish, wildlife, plants and their habitats;
- Conservation strategies that spatially integrate biological objectives for species groups, management practices and ecological functions and processes;
- Monitoring and assessments to predict ability of the landscape to support and sustain priority fish and wildlife populations;
- Decision support systems and tools which make the science and models accessible to partners to define what is needed, how much, and where;
- Short- and long-term adaptation approaches at meaningful scales;
- Maps of potential corridors linking present and future habitat, incorporating conservation genetics;
- Identification of high-priority research and technology needs.

Landscape Conservation Cooperatives do not:

- Deliver on-the-ground conservation. That's up to the Service, the states and other partners.
- Focus solely on climate adaptation. They provide science support for conservation actions addressing a variety of broad-scale challenges including water scarcity, invasives and wildlife disease.
- Replace existing science capacities. Rather, it will compliment and build on current science and conservation work.

What does a Landscape Conservation Cooperative produce?

- Integrated data for seamless spatial modeling of species and habitats, within and across geographic area boundaries;
- Explicit and measurable biological objectives focused on population objective variables;
- Population modeling linking fish, wildlife and plant populations to habitat and other limiting factors;
- Identification of areas of converging and overlapping stressors;
- Application of scaled-down climate models to predict effects on fish and wildlife;
- Predicted ranges of native and invasive species under temperature and precipitation projections;



Roseate spoonbill by Diane Borden-Billiot/USFWS

How will Landscape Conservation Cooperatives work?

The Service and USGS intends to play key leadership and catalyst roles in developing each LCC by assisting in initial planning, partner coordination, assembling core staff and meeting associated needs for operational support. The partnership will determine responsibilities for further funding core science, administrative and management functions. Partners may fund some positions or provide in-kind services, but neither is required for participation.

- Core staff will be co-located within a partner facility, while complimentary staff will participate virtually from remote locations. Funding for staff may come from multiple sources.
- The LCC coordinator will serve as the unit leader, facilitating the link between science and management as well as providing day-to-day leadership and direction of the LCC staff and partnership.
- All staff positions, including the coordinator, may be supported through any LCC partner, or shared between partners.
- LCC scientists will share their expertise both within and across LCCs by participating in local and national training and mentoring programs.
- Staff may be added in phases as the LCC matures and demand for LCC products and services change and grow.