

Landscape Conservation Cooperatives

Responding to National-scale Stressors

Northeast Region

The conservation community is facing unprecedented challenges, climate change among them. The science must adapt to respond. To that end, the U.S. Fish and Wildlife Service invites 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 recommendations and 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 North Atlantic LCC in the Northeast. As partner interest and funding permits, we will also move forward on an Appalachian LCC as well as work with the midwest region on the Great Lakes LCC and the southeast region on the South Atlantic LCC.

Landscape conservation cooperatives are:

- Self-directed, applied science partnerships that will drive conservation 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 that 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.



Heidi Hanlon/USFWS

Vernal pool at Cape May NWR

What does a landscape conservation cooperative look like?

Each LCC may have:

- 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.

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.



Ruddy turnstone and Red knot

How will landscape conservation cooperatives work?

The Service intends to play key leadership and catalyst roles in developing each LCC by assisting in initial planning, coordinating partners, 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 may be co-located within a partner facility, while complimentary staff may participate from remote locations. Funding for staff may come from multiple sources.
- The LCC coordinator will facilitate the link between science and management as well as provide 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 demands for LCC products and services change and grow.

- 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, bioclimate modelers and fish, wildlife and habitat managers.

Landscape conservation cooperatives do not:

- Deliver on-the-ground conservation. That's up to the Service, the states and other partners.
- Duplicate existing partnerships or create burdensome and unnecessary bureaucracy.
- Focus solely on climate adaptation. They provide science support for conservation actions addressing a variety of broad-scale challenges including water scarcity, invasive species and wildlife disease.
- Replace existing science capacities. Rather, they will complement and build on current science and conservation work.

What can 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;
- 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;
- Designs for monitoring programs to assess and predict the ability of the landscape to support and sustain priority fish and wildlife populations;
- Decision support systems and tools that make the science and models accessible to partners to define what is needed, how much is needed, 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.

Gregory Breese/USFWS

