Landscape Conservation Cooperatives

Frequently Asked Questions

1) Why are Landscape Conservation Cooperatives being established?

Protecting North America's natural and cultural resources and landscapes is essential to sustaining our quality of life and our economy. Native fish and wildlife species depend on healthy rivers, streams, wetlands, forests, grasslands and coastal areas to thrive. Managing these natural and cultural resources and landscapes, however, has become increasingly complex. Land use changes and impacts such as drought, wildfire, habitat fragmentation, contaminants, pollution, invasive species, disease and a rapidly changing climate can threaten human populations as well as native species and their habitats.

Landscape Conservation Cooperatives (LCCs) are public-private partnerships composed of states, tribes, federal agencies, non-governmental organizations, universities and others. LCCs recognize these challenges transcend political and jurisdictional boundaries and require a more networked approach to conservation—holistic, collaborative, adaptive and grounded in science—to ensure the sustainability of North America's land, water, wildlife and cultural resources.

The LCC network is composed of 22 individual LCCs, several of which have relationships with conservation entities in Canada or Mexico.

2) How did LCCs come about?

In signing Secretarial Order No. 3289 on Sept. 14, 2009, Interior Secretary Ken Salazar directed Department of the Interior bureaus to stimulate the development of the LCC network as a response to landscape-scale stressors, including climate change. The cooperatives are intended to work interactively with DOI Climate Science Centers to help coordinate regional adaptation efforts.

While LCCs are integral to climate change adaptation efforts, they are not climate-centric. They will provide science support for conservation activities that address a variety of broad-scale land use pressures and landscape-scale stressors—including but not limited to climate change—that affect wildlife, water, land and cultural resources.

3) What is the role of an LCC?

The role of an individual LCC is: to leverage funding, staff and resources; to develop common goals; to develop tools and strategies to inform landscape-scale planning and management decisions; to link science to management; and to facilitate information exchange among partners.

The role of the national LCC network is: to provide a forum for national and international conservation planning; to integrate the efforts of the 22 LCCs;

and to facilitate efforts across and among individual LCCs.

The role of an LCC partner is: to define and share individual landscape-scale priorities; to help shape a common landscape-scale conservation framework for science and conservation actions; and to provide feedback to the LCC on the effectiveness of LCC products and approaches.

4) How do LCCs meet unfilled conservation needs?

North America's landscapes, and the fish, wildlife, plants and cultural heritage they support, are increasingly impacted by threats that affect more than isolated places or single species. They tend to threaten multiple resources and entire landscapes. Often, these threats are beyond the scope and reach of any one partner, partnership, or program. LCCs provide a forum for partners and partnerships to integrate efforts.

5) How does the LCC network add value to existing conservation efforts?

LCCs combine the collective science capacity, infrastructure, creativity, perspectives and, sometimes, financial resources of existing partnerships and programs to address decision support needs on a comprehensive scale. They are a forum for developing a common understanding of landscape change and a common vision for adaptation.

6) How are LCCs unique?

LCCs look at whole landscapes and involve a diverse community of conservation partners working on a given landscape. Because many conservation challenges are so complex and interconnected with numerous issues, conservation agencies and organizations increasingly must work together across jurisdictional lines to inform management of North America's natural and cultural resources. LCCs are well-positioned to enable conservation organizations to do that on a landscape scale.



Catskill Mountains, New York. USFWS

7) How do LCCs improve data sharing?

LCCs work with partners to determine what information is needed at what scale and in what format to help them make conservation decisions. LCCs are then building shared information management systems that link to all relevant data that decision-makers need.

8) How do LCCs help improve communication and coordination across and within agencies?

LCCs bring together conservation programs and partners working in the same geographic areas to agree on a shared vision for the sustainability of natural and cultural resources. LCCs provide a mechanism for diverse partners to identify where they can take action to address shared challenges while understanding how those actions contribute to their own organizations' objectives.

9) How do LCCs help coordinate science?

LCCs work with partners to compile information and develop decision support tools useful to land managers in addressing pressing science and management needs. They incorporate science needs and project information in conservation frameworks that enable LCC partners to understand how projects fit together and to prioritize next steps.

10) How do LCCs and DOI Climate Science Centers work together?

The Department of the Interior is establishing eight Climate Science Centers. Their scope includes the full range of natural and cultural resources, and their focus is on information needed to manage these resources in the face of climate change. LCCs are the CSCs' primary clients. LCCs will use this information provided by the CSCs to support existing or develop new landscape-scale resource management plans that will inform



Mule deer and wind turbines in the Columbia Hills of Washington State. Photo by Mike Schroeder



LCCs are forums for partnerships that allow a region's private, state and federal conservation infrastructure to operate as a system rather than as independent entities. Photo by Brian Jonkers/USFWS

future activities and assist partners in focusing their management decisions.

11) Why is it important for LCCs to address cultural and tribal resource issues?

Through their conservation planning efforts, cultural and tribal resource managers identify threats to resources protected through federal, state, or local statutory law. LCCs provide science and resource management decision-support tools to assess the condition and needs of these trust resources as well as multiple resources across a landscape.

12) How do LCCs work with and build off of conservation partnerships such as joint ventures and fish habitat partnerships?

LCCs synthesize and build on the current science and conservation work of existing partnerships, such as fish habitat partnerships, migratory bird joint ventures and flyway councils, as well as water resources, land, coastal,

marine and cultural partnerships.
They combine the expertise of existing conservation partnerships and programs to increase and integrate collective science capacity to make planning for multiple resources across large landscapes possible.

13) Will LCCs divert attention and resources from other efforts, such as state wildlife grants or joint ventures?

No. LCCs recognize joint ventures and the National Fish Habitat Action Plan (NFHAP) structure as important, independent efforts. The excellence of these programs is vital to the overall success of American conservation efforts. Maintaining or increasing funding to the states through the State and Tribal Wildlife Grants Program is fundamental to that collective effort. Without the expertise and funding of these three programs, it would be difficult for LCCs to develop sustainable landscapes. LCCs are intended to support these programs by identifying and funding the mutual science needs of these organizations while integrating that science and partner goals to develop a vision for conservation action. By doing so, LCCs are intended to reduce redundancy of effort in the science development arena, thus saving resources for the effective implementation of conservation.

14) How do LCCs coordinate across federal conservation efforts?

LCCs function as forums to align large-scale federal conservation effort by sponsoring and promoting dialogue on specific issues common to many conservation efforts (e.g., climate change, invasive species, land use and sage grouse) both within an LCC and across LCCs. A key focus is identifying potential redundancies and opportunities to leverage resources across conservation efforts. LCCs also serve and interpret data; identify regional monitoring needs; identify

regional science needs including research, modeling and syntheses of existing research; and evaluate/ facilitate decision-support tools.

15) How do LCCs support the efforts of natural and cultural resource conservation or land management organizations?

LCCs develop science-based conservation plans across a large geographic scale. The plans are developed to support the vision of a broad diversity of partners and incorporate a mutual and comprehensive understanding of change on the landscape. The intent of this planning component of LCCs is to inform actions by partnerships and organizations that add up to something more than any one organization could accomplish on its own.

16) How do LCCs coordinate with and among regional conservation efforts that cross their boundaries as well as those of other jurisdictions (e.g. BLM Rapid Ecoregional Assessments), and how does this contribute to the total conservation effort?

LCCs can 1) facilitate conversations among tribal, state, federal and nongovernmental organizations about emerging regional challenges and opportunities as well as the potential effects of climate change on agriculture and municipal water supplies; 2) develop regional conservation, development and adaptation strategies to help inform and guide land and water use planning and other decisionmaking processes; and 3) serve as a clearinghouse to share personnel, funding and other resources to implement these regional strategies. Partners in many LCCs already participate on management teams facilitating the development of BLM's Rapid Ecoregional Assessments (REAs). When the assessments are completed, LCC partners may help federal and state resource managers step-down REA information into land use planning and day-to-day management activities by: 1) serving regional information to resource managers and helping them understand implications and utility of the information and 2) conducting focused, finer grained assessments following the regional assessments.

17) Is there a lead agency for LCCs?

No. LCCs are intended to be selfdirected partnerships. The U.S. Fish and Wildlife Service and Department of the Interior played key roles in initially establishing LCCs and continue to contribute significant capacity for national coordination at all of the 22 LCCs. DOI agencies serve on individual LCC steering committees in equal standing with all other members. All major federal conservation agencies are engaged as LCC partners.

18) How do LCCs relate to one another?

The LCC network is composed of individual LCCs organized, governed and operated in a consistent manner that promotes landscape conservation nationally and internationally.

LCCs are self-directed partnerships. However, their governance, structure and operation are consistent so that they function as seamlessly as possible to support geographically defined landscapes.

It is largely the responsibility of the LCC staff in each region, in consultation with the steering committees (see next question), to ensure coordination of LCCs that share mutual interests and/or boundaries.

19) How are LCCs staffed or coordinated?

Each LCC has a steering committee, composed of executive-level and management-level partner representatives. States, Tribes, and NGOs with a natural/cultural resource management focus, all within a given LCC's geographic area are invited to sit on its steering committee.

Steering committees, which are tailored to the needs of the individual LCCs, emphasize building on existing partnerships. Member organizations are expected to dedicate time and energy to developing a shared vision of conservation and coordinating their otherwise independent actions in the cooperative pursuit and implementation of the LCC.

A scientific and technical staff with an adaptive resource management focus forms the core of an LCC. The specifics of how each LCC is staffed are determined by its steering committee in consultation with federal agencies with dedicated funding.

LCC core staff members typically include landscape and population modelers, geographers and geographic information system (GIS) specialists, terrestrial and aquatic ecologists, cultural resource specialists, quantitative fish and wildlife biologists,

hydrologists, outreach specialists and other technical/decision support staff. Such staffing promotes collaboration and communication among LCCs regarding GIS, spatial data application, population modeling, statistics, conservation genetics, landscape ecology, etc.

20) How are LCCs funded?

The Department of the Interior is contributing significant funding through its agencies to support staff, science and operational capacity. It is expected that this initial investment will support the startup of most of the 22 LCCs and begin to demonstrate their benefits for conservation. Several other federal, state and private organizations already have contributed significant resources toward LCC operations.



Humboldt Bay National Wildlife Refuge in northern California is taking part in a Landscape Conservation Cooperative-facilitated study of sea level rise. Photo by Tupper Ansel Blake

21) How are LCC boundaries determined?

The LCCs' geographic areas were developed by a team of U.S. Fish and Wildlife Service and U.S. Geological Survey scientists and experts by aggregating Bird Conservation Regions. BCRs are biologically based units that represent longstanding partnerships that facilitate conservation planning and design at landscape scales. Some BCRs (e.g., Hawaii) were not aggregated and stand-alone as geographic areas. The geographic areas also incorporate standard units. For aquatic species considerations, the Freshwater Ecoregions of the World was the standard unit used. That is the same framework adopted by the National Fish Habitat Action Plan (NFHAP). To account for terrestrial species' needs, Omernick's Level II and other existing ecological units were used. The resulting geographic framework identified large regions that crossed state and federal administrative boundaries. In most geographic areas, the boundaries of key partnerships are left intact to preserve existing conservation and science capacities.

For more information about Landscape Conservation Cooperatives Contact:

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