U.S. Department of the Interior

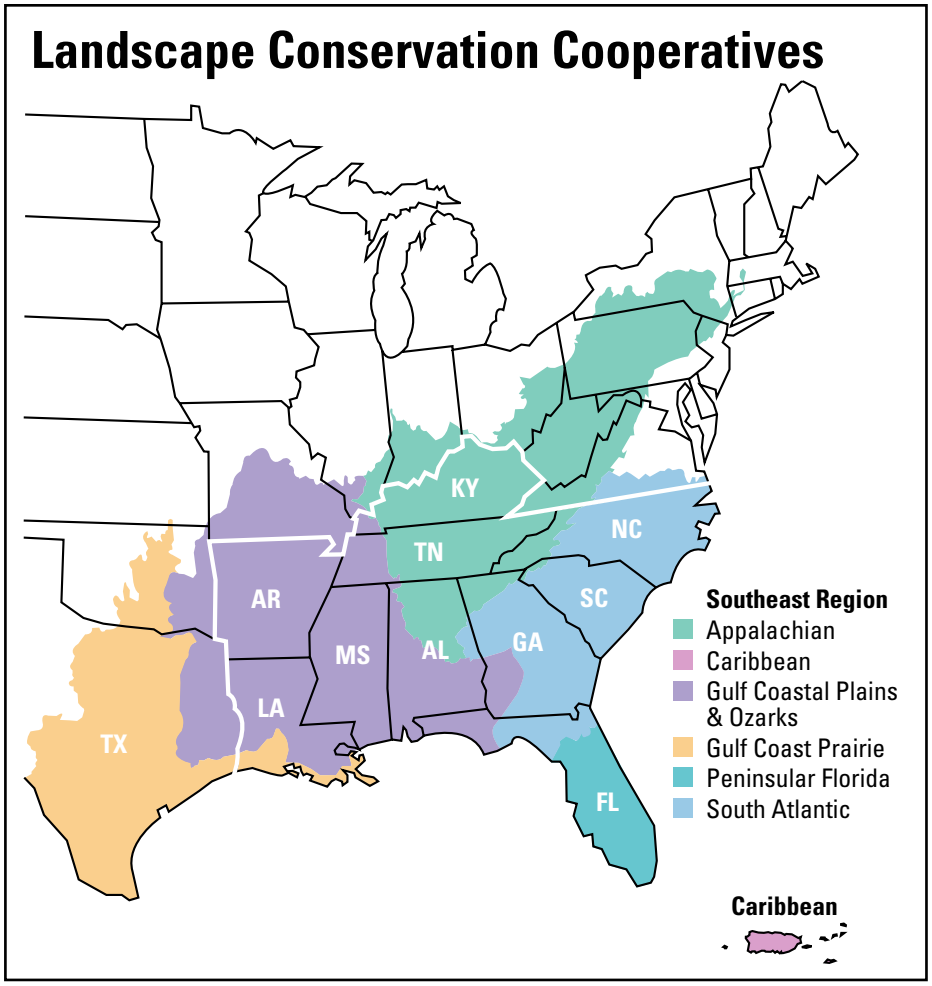
Landscape Conservation Cooperatives Support in the Gulf of Mexico

Landscape Conservation Cooperatives, 22 in total, were established in 2010 as a national network of public-private partnerships to provide shared science to ensure the sustainability of America's land, water, wildlife and cultural resources. While the Department of the Interior introduced the concept and has provided significant resources to get Landscape Conservation Cooperatives started, a steering committee of private, nonprofit, local, state, federal, and tribal organizations bring their individual resource investments and collaborate in decision-making in the interest of sustaining natural and cultural resources.

Landscape Conservation Cooperatives provide scientific and technical support for landscape–scale conservation in an adaptive management framework by supporting conservation planning; providing decision support tools such as spatially-explicit habitat priorities; assessing, prioritizing, and coordinating research; and designing inventory and monitoring programs.

The Gulf Coast Region is included within four Landscape Conservation Cooperatives: *Gulf Coast Prairie*; *Gulf Coastal Plains and Ozarks*; *South Atlantic*; and *Peninsular Florida*. The Gulf Coast Landscape Conservation Cooperatives have made great progress in establishing an integrated network of diverse partners to focus on landscape restoration and conservation. As the Landscape Conservation Cooperatives mature, they will continue to advance the goals of the Gulf Coast Ecosystem Restoration Task Force Strategy and the newly formed Gulf Coast Ecosystem Restoration Council.

Recognizing the interconnectedness of the Gulf of Mexico ecosystem across state and other boundaries, the Landscape Conservation Cooperatives established a Gulf Coast Landscape Conservation Liaison as a shared position between the U.S. Fish and Wildlife Service and NOAA.



The liaison position supports collaboration, and facilitates a coordinated approach to conservation between the Gulf Landscape Conservation Cooperatives.

In addition, the Landscape Conservation Cooperatives have leveraged their extensive partnership networks across the Gulf Coast to strategically apply resources and expertise to address Gulf Coast ecosystem restoration and conservation science gaps identified by resource managers. The following are examples in which the Landscape Conservation Cooperatives have brought together partners to address the goals of Gulf Coast restoration:

Restore and Conserve Habitat

- To help identify habitat corridors and priority areas that can sustain wide ranging animals, current and future levels of possible habitat connectivity are being mapped.
- Development of conservation strategies at landscape scales is often hampered by a lack of data consistency and compatibility across jurisdictional boundaries. An on-line platform that provides data in a consistent manner and allows end-users to easily discover, access, and integrate existing data and tools for conservation planning is being developed.

- A common landcover classification system at the landscape scale is being developed to expand, integrate, and improve existing digital landcovers across the southeast. A common landcover database will also allow managers to better assess changes over time and prioritize restoration and conservation activities.
- The future capacity of coastal wetlands to support key species in the face of sea level rise is being assessed for the western Gulf Coast. Key species included in this effort are the whooping crane, piping plover, grassland birds, waterfowl, and colonial waterbirds.
- A spatially-explicit decision support tool is being developed to guide habitat conservation for the western Gulf Coast in the Chenier Plains of Texas and Louisiana. Key species included are grassland birds and mottled ducks, which are year-round residents of coastal marshes and prairies in the Western Gulf Coast.

Mottled ducks © Jarrett Olen Woodrow, Jr.

- Research is being conducted to assess the benefits of dike notching, a common river management technique used to recreate secondary channels along the Mississippi River. Anecdotal evidence suggests a strong response by Federally listed species such as pallid sturgeon, fat pocketbook mussels, and least terns.

Restore Water Quality

- Instream flow, quantity and quality is a critical issue for the restoration and conservation of aquatic-dependent vertebrate and invertebrate species within coastal watersheds. Baseline water resource information is being developed to support instream flow research for the western Gulf and parts of the Florida panhandle.

Replenish and Protect Living Coastal and Marine Resources

- Areas needed to sustain amphibian and reptile populations in the face of climate change and urban growth are being identified to improve information needed to protect these key coastal living resources.
- To address the issue of long-term sustainability of fish and wildlife species as they are affected by the overall health of populations across the landscape, genetic "hotspots" are being identified to help maintain withiin-species adaptive capacity.

Enhance Community Resilience

- An Integrated Coastal Assessment is being conducted to identify how natural, cultural, and socioeconomic resources will be vulnerable to future changes (e.g., climate, urban growth) and methods to plan for natural and cultural resource sustainability.
- A decision support tool is being developed to assist resource managers with designing a landscape capable of supporting fish, wildlife, and other natural, cultural, and socioeconomic resources at levels desired by the public now and into the future.
- Changes in the climate will affect key ecological processes such as hydrology. Predictions of changes in hydrology and landcover within the Mississippi Alluvial Valley are being developed using downscaled climate models. Predictions will include potential secondary impacts of these changes on fish and wildlife and subsequent impacts to human communities living along the coast.

Diving pelican by USFWS

For More Information about Landscape Conservation Cooperatives (LCCs)

Gulf Coast Plains and Ozarks LCC
www.gcpolcc.org

Gulf Coast Prairies LCC
www.gulfcoastprairielcc.org

Peninsular Florida
www.peninsularfloridalcc.org

South Atlantic LCC
www.southatlanticlcc.org

Appalachian LCC
www.applcc.org

Caribbean LCC
www.caribbeanlcc.org

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BOEM Bureau of Ocean Energy Management

BSEE Bureau of Safety and Environmental Enforcement

USGS science for a changing world