











2016 Annual Report



From our Steering Committee Chairman	Page 1
2016 Progress Toward Strategic Plan Goals Science Goal: Biological Planning and Conservation Design	Page 2
Conservation Delivery Goal: Application of LCC Research and Tools	Page 4
Organizational Representation Goal: Maintain and Expand Broad-based Partnerships	Page 7
Monitoring Goal: Collaboratively Evaluate Collective Progress	Page 9
Communications Goal: Effective Communications Platforms	Page 10
Beyond LCC Borders	Page 11
Project Themes in 2016	Page 12



Photo Credits on Cover, clockwise from top center: Mississippi Sandhill Crane NWR-Toby Gray, GCPO; Closeup of Grassland Blueprint 1.0-Toby Gray/CPA; Kayaking the Wolf River-Gregg Elliott, GCPO; **Prairie Hollow, Ozarks**-Howard Jones. All linked photos courtesy of Flickr **Creative Commons**.

Text Photos: TOC: Grand Bay reflections-Toby Gray; Buffalo River-Oakley Originals, Flickr CC; p1: Kenny Ribbeck p2: Spanish Fort Blueprint workshop-Todd Jones-Farrand; p5: Longleaf Pine-Toby Gray; p6: Meramec River, MO-Mona Maynard; p8: Todd & Kristine at Grand Bay NERR-Toby Gray; p9: Ozarks in Missouri-Noel Pennington; Rafinesque's Big-eared Bat-USDA; p12: Eastern Indigo Snake-USDA; p13: Louisiana Black Bear-USDA; Hawksbill Crag, Ozarks-Mike Norton; p14: Southern Rainbow Mussel (Villosa vibex)-Jeff Powell; Spotted Towhee singing-Brendan Lally

Recommended citation:

GCPO LCC. 2016. Gulf Coastal Plains and Ozarks Landscape Conservation Cooperative 2016 Annual Report. 14 pages.

From our Steering Committee Chairman

2016: A Network of Lands & Waters



Kenny Ribbeck, GCPO LCC Steering Committee Chair, Wildlife Division Administrator, Louisiana Department of Wildlife and Fisheries

In 2016, the Gulf Coastal Plains & Ozarks Landscape Conservation Cooperative (GCPO LCC) — along with five more LCCs in the Southeast — completed a landscape conservation design to begin the visioning process for what a functional and interconnected "network of lands and waters" in our region would look like. This was the GCPO LCC's first Conservation Blueprint, version 1.0, and it was the culmination of more than five years of effort, research, planning, ecological assessments, analysis and synthesis by a very large and diverse group of hundreds of people and organizations from across our geography. Researchers, resource managers, administrators and planners from all the federal agencies that manage natural resources, all the state wildlife agencies, all of the migratory bird joint ventures, fish habitat partnerships, nonprofits, and many universities and national wildlife refuges have contributed to this effort via the Steering Committee, the Advisory Council, the Adaptation Science

Management Team, the Blueprint workshops, or by conducting LCC-sponsored research or working directly with LCC staff. To all of you, on behalf of the GCPO LCC, I would like to express my heartfelt gratitude and thanks. We did it! This process has highlighted that probably the most important C in LCC stands for "Cooperative."

Our GCPO LCC Blueprint represents one-sixth of the Conservation Blueprint 1.0 for the Southeast, developed at the behest of the **Southeast Conservation Adaptation Strategy** or SECAS. The SECAS Blueprint 1.0 rollout at the SEAFWA conference in Baton Rouge, Louisiana last fall was only a beginning step, yet one that involved tremendous cooperative effort to take. The discussions in that rollout meeting highlighted the concerns moving forward in our role for conservation; we must ensure greater engagement with community development organizations and recognize the role they hold in any conservation plans for their subject landscape.

Accordingly, the GCPO LCC, along with our sister LCCs in the Southeast, is focusing in 2017 on developing Blueprint "use cases," i.e. tangible ways in which the Blueprint and its underlying datasets and analyses can be put to use by our conservation partners. In addition, many LCCs across much of the eastern U.S. are now looking to SECAS as a model for how to develop a "network of lands and waters" for both wildlife and people. Speaking of people, while we all recognize that functional landscapes for wildlife are actually beneficial for people, in 2017 we plan to focus more explicitly on the people side of the equation through a chartered Human Dimensions Working Group.

I appreciate your trust in me and our staff over the past 3 years as we have endeavored to meet the challenging needs of conservation across our landscape. I hope you will continue to engage with your fellow conservationists, whether in the air, on the land, or in the waters, and engage the new partners that are necessary if we are to achieve a true conservation landscape in our futures.

I think we have been taking more positive steps to ensure our presence at the table, but I still wonder if we are actually in the seats or on the plates; let's grab a firm position on those seats!

Best Regards, Kenny Ríbbeck

SCIENCE GOAL: Biological Planning and Conservation Design

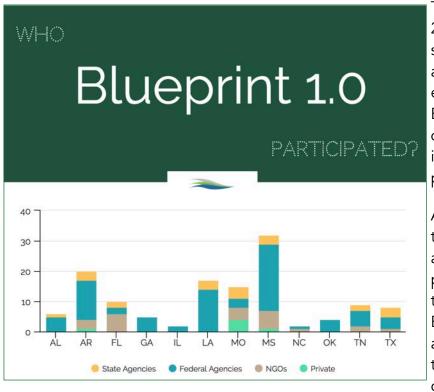
The Gulf Coastal Plains & Ozarks (GCPO) Landscape Conservation Cooperative (LCC) is working to define, design, and deliver landscapes capable of sustaining natural and cultural resources for future generations. In 2016, the GCPO LCC produced its first landscape conservation design, our Conservation Blueprint 1.0. The Blueprint and the datasets underpinning it was, in turn, integrated into the Southeast Conservation Adaptation Strategy's Conservation Blueprint, unveiled in October 2016 at the annual meeting of the Southeast Association of Fish and Wildlife Agencies (SEAFWA).

ECOLOGICAL ASSESSMENTS & BLUEPRINT WORKSHOPS

In 2016, LCC staff continued work to complete assessments of 9 habitat systems. By 2016, all but one (which lacked sufficient data) of the remaining ecological assessments were completed:

- Grasslands
- Upland Hardwoods
- Upland Streams
- Beaches & Dunes in progress





Throughout late winter and spring of 2016, the GCPO LCC hosted a series of seven conservation blueprint workshops at locations throughout the region. At each workshop, a version ".75" of the Blueprint was explained, displayed and discussed to gain valuable feedback, insights, and additional data from participants.

Approximately 60 people worked with the LCC staff to develop the Blueprint, and 130 people from 50 organizations participated in the workshops. Through the input of so many people, the Blueprint is beginning to fulfill its role as a common framework and language for the partnership as it wrestles with the challenges of 21st century conservation.

Workshops

- Lake of the Ozarks, MO
- Ft. Smith, AR
- Caddo Lake, TX

February 3rd

February 9th

February 11th

- Spanish Fort, AL
- Memphis, TN
- Starkville, MS
- Vicksburg, MS

March 15th

March 17th

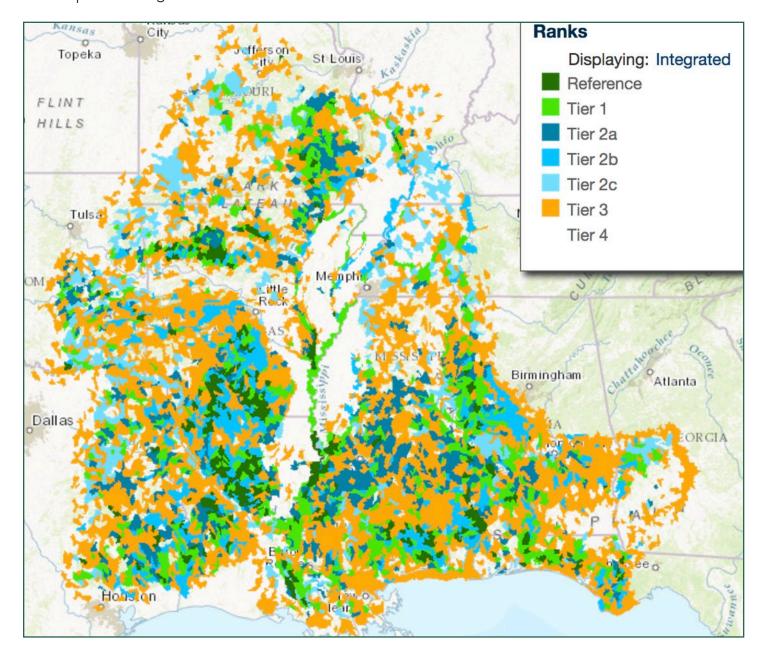
March 22nd

March 24th

THE GCPO LCC'S BLUEPRINT 1.0

In all, **114 spatial data sets** in the Conservation Planning Atlas make up **Blueprint v1.0**. These products are linked together, building on the **Integrated Science Agenda** to assess landscape condition and identify which landscapes may be closest to sustainable conditions now. These are the data that were integrated into the Southeast Conservation Adaptation Strategy's Conservation Blueprint, unveiled in October 2016 at SEAFWA.

The image below shows the Blueprint's integrated watershed ranks. This data set represents an integration of HUC12 watershed ranks across the 9 priority aquatic and terrestrial systems identified in the Integrated Science Agenda (v4). High-ranked watersheds (e.g. Tier 1) represent landscapes that are predominantly in good condition relative to other watersheds in each subgeography of the GCPO region. Low-ranked watersheds (e.g. Tier 4) are characterized by highly fragmented landscapes and degraded habitat conditions.



CONSERVATION DELIVERY GOAL: Application of LCC Research and Tools

CONSERVATION PLANNING ATLAS

In 2016, 118 new datasets were added to the Conservation Planning Atlas (CPA). Lists of datasets imported each year are available from the GCPO LCC Dataset Import Index gallery. Many of these datasets are associated with our ecological assessments of 9 broadly defined habitats, as well as the Blueprint integrated watershed ranks for each system type. Additional highlights include the Environmental Protection Agency (EPA) Enviroatlas

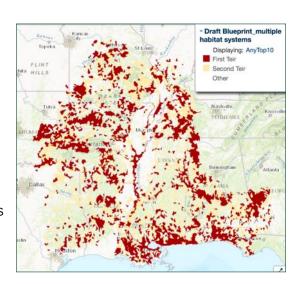


datasets related to ecosystem services in the GCPO region and the Gulf of Mexico Sentinel Site cooperative datasets.

In addition, Toby Gray (who became the GCPO LCC's Geomatics Coordinator in January 2017) developed a **printable CPA User's Guide**, which is proving useful to partners who have begun accessing data and hosting their own data on the CPA. For example, a team from the NOAA Sentinel Site Cooperative program has uploaded data and created their own **Northern Gulf of Mexico Sentinel Site Cooperative Project Gallery!**

2016-17 BLUEPRINT USE CASES

GCPO LCC staff and partners desire to continue building on the momentum of developing the first version of the Conservation Blueprint by finding specific ways in which the landscape conservation design and/or its underlying datasets can be applied to planning or on-the-ground conservation. To achieve this, the Coordinator, Science Coordinator, and other staff began meeting with partners in 2016 to develop "Blueprint use cases." These meetings and development of cases will continue through 2017 and beyond. The following is a summary of current use cases in development.



Jackson Purchase Initiative

The Jackson Purchase area of southwest Kentucky and northwest Tennessee is one of the last and best areas of extensive grasslands remaining in the GCPO region; it has already attracted the attention of many many conservation partners. The objectives of this initiative are to integrate planning and identify collective conservation delivery opportunities for this area. A private Jackson Purchase Conservation Planning & Delivery group on the LCC's Conservation Planning Atlas is facilitating information exchange (particularly geospatial data layers) and communication between

Jackson Purchase area land managers, Joint Ventures, and Landscape Conservation Cooperatives and also highlighting tools partners can provide to assist area land managers. Group members can view maps and datasets, communicate with other group members, comment on maps, and create and export custom maps directly within the group.

Middle Mississippi National Wildlife Refuge Partnership (MMRP)

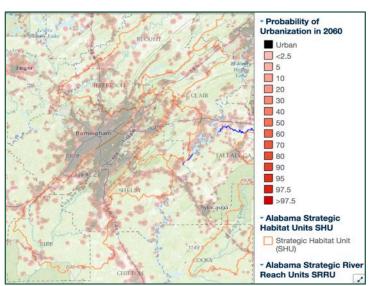
The Middle Mississippi National Wildlife Refuge wants to be a strategic partner in the MMRP, but is constrained by the boundaries of its current Land Protection Plan. Recent U.S. Fish and Wildlife Service (USFWS) Policy guidance stipulates that the Refuge must show that it is a stakeholder in an existing Landscape Conservation Design (LCD) before it can update its Land Protection Plan. The GCPO LCC has offered to facilitate development of this LCD.

Alabama Ecological Services conservation planning

LCC Staff began working with the Alabama Ecological Services Field Office staff and the Resource Management Service (RMS), a global timberland investment firm based in Birmingham, Alabama, to apply and test the Blueprint on RMS properties by identifying management practices that result in good quality habitat. Another priority is to identify potential streams for mussel reintroductions using Section 6 funds. The GCPO LCC Blueprint has already provided eye opening projections about the extent of future urbanization near some Alabama Strategic Habitat Units that would provide high return on investment, if not for encroaching urbanization.

Tool to assess open pine habitat value

As follow-up to the NatureServe Desired Forest Conditions metrics project, staff have been helping to test the Rapid Assessment Protocol for open pine. Work is progressing at Noxubee NWR, as well as Mark Twain and Ouachita National Forests. The protocols were tested at the Sam D. Hamilton Noxubee National Wildlife Refuge in Mississippi. Forest Condition data and bird counts for seven priority species were collected from 157 sample sites in June and July. This is an undergraduate research project currently in the data analysis phase.



Orange outlines show SHUs surrounding Birmingham. Underlying areas in black show current urban, while red shows projected urbanization by 2060



State Wildlife Action Plans

In 2015, many state wildlife action plans throughout the country were updated according to guidance from the USFWS and the Association of Fish and Wildlife Agencies. Some states, such as Arkansas, have not yet designated Conservation Opportunity Areas. The GCPO LCC Science Coordinator has begun reaching out directly to state planning staffs to explore further uses of the Blueprint in 2017.

Missouri Ecological Services Endangered Species Assessments

Because decisions to list species under the Endangered Species Act require status and trend information, the Missouri ES office is interested in



using whatever status, trends, and projections of key habitats that they can glean from the GCPO Conservation Blueprint. The Blueprint has assessed nine focal habitats and could produce trajectories showing the rate and direction of change. Ultimately, a fairly simple map that shows stability versus levels of change in key habitats may help to meet requirements for decisions on species proposed for listing in Regions 2, 3 and 4 of the USFWS. For example, the Louisiana Pigtoe mussel is scheduled for a decision in FY19, and the GCPO LCC's assessment of medium-low gradient streams will be highly informative to this process.



ORGANIZATIONAL REPRESENTATION GOAL: Maintain and Expand Broad-based Partnerships

SPRING STEERING COMMITTEE MEETING

Theme of the spring 2016 meeting held in Baton Rouge, LA: Creating a Shared Vision for Landscape-scale Conservation in the Gulf Coastal Plains & Ozarks. This was the first meeting held jointly by the GCPO and the Gulf Coast Prairie LCC Steering Committees. The meeting focused on information exchange to inform members of Gulf conservation efforts in followup to the Gulf Coast Vulnerability Assessment: "where we have been in the Gulf, where we are now, and a strategy for future work with Gulf of Mexico partners." In addition, a special panel presented and facilitated discussion of conservation issues related to bottomland hardwood and riverine systems hydrology.

Major decisions of the GCPO LCC business meeting included:

- Proceed with Blueprint process as developed by the GCPO LCC Science Coordinator and the ASMT.
- The pilot Ozark Highlands CCS-SDM is a good approach for integrating species population viability, habitat objectives, and global change into a conservation decision making process.
- Agreed to establish a pre-proposal process for LCC funding.
- Approved updated GCPO LCC Communications Strategy.
- Approved three projects: Two projects are phase II of the Ecological Assessment, to develop a strategic decision framework for terrestrial and aquatic species; a third project will develop a comprehensive barrier inventory and prioritization database.
- The GCPO LCC, working in collaboration with the Gulf Coast Prairie LCC and others, will proceed with developing a human dimensions charter and working group.
- Created a nominating committee for a new SC chair and co-chair.

PARTNER ENGAGEMENT AND COORDINATION

In addition to the usual collaboration with the South Central Climate Science Center (CSC) to help prioritize research related to climate, the GCPO LCC's communications consultant also worked with the South Central CSC to develop a draft communications strategy in preparation for hiring a full-time communications position. Staff participated in a broad array of science and partnership meetings throughout the year, presenting the LCC's landscape conservation science work (list of meetings and presentations available separately).

Steering Committee Members

Alabama Department of Conservation and Natural Resources

Arkansas Game and Fish Commission

Ducks Unlimited

Florida Fish and Wildlife Conservation Commission

Kentucky Department of Fish and Wildlife Resources

Louisiana Department of Wildlife and Fisheries

Mississippi Department of Wildlife, Fisheries, and Parks

Mississippi State University

Missouri Department of Conservation

National Bobwhite Conservation Initiative

National Oceanic and Atmospheric Administration

National Park Service

Oklahoma Department of Wildlife Conservation

Tennessee Wildlife Resources Agency

Texas Parks and Wildlife Department

The Nature Conservancy

US Army Corps of Engineers

US Fish and Wildlife Service

US Forest Service

US Geological Survey

FALL STEERING COMMITTEE MEETING

Theme of the fall 2016 meeting held once again in Baton Rouge, LA was SECAS and the Gulf Coastal Plains & Ozarks LCC: The Next 5 Years. Major decisions:

- Approved new Operational Procedures for the Steering Committee. The new guidelines include the following changes:
 - a. updated mission statement to match Strategic Plan
 - **b.** streamlined Steering Committee membership (eliminating associate members without votes)
 - c. lowered quorum from 3/4 to 2/3
 - d. eliminated the Partnership Advisory Council while inviting current PAC members to join as full Steering Committee members
 - e. The partnership will seek new members to join the GCPO LCC, including the Longleaf Alliance, Shortleaf Pine Initiative, and others
- Brian Branciforte, Florida Fish & Wildlife Conservation
 Commission (FWC) and Jeff Fleming, USFWS Region 4 agreed to serve as new Steering Committee co-chairs.



STAFFING CHANGES

- Cynthia Edwards took over as SECAS Coordinator midway through the year, and she was approved to lead the HD working group in late 2016 as well as continuing her previous role as Gulf Liaison and SECAS Coordinator.
- Kristine Evans was hired as a tenured Assistant Professor at
 Mississippi State, and will stay involved with the LCC via her role in a
 number of projects. After stepping down as the GCPO LCC
 Geomatics Coordinator in December, Toby Gray the GCPO GIS
 Analyst was hired to fill that role in January 2017.

Dedicated & Affiliated Staff

Greg Wathen, Coordinator – Tennessee Wildlife Resources Agency

Dr. Todd Jones-Farrand, Science Coordinator -US Fish & Wildlife Service

Yvonne Allen, Aquatic Habitat Analyst -US Fish & Wildlife Service

Cynthia Kallo Edwards, SECAS Coordinator & Gulf Coast liaison -Wildlife Management Institute

K. Gregg Elliott,
Communications & Outreach K Gregg Consulting

Janet Ertel & Tim Fotinos,
NWRS Inventory & Monitoring
liaisons for the GCPO
geography US Fish & Wildlife Service

Dr. Kristine O. Evans, Geomatics Coordinator -Geosystems Research Institute, Mississippi State University

Toby Gray, GIS Analyst -Geosystems Research Institute, Mississippi State University

Timothy Mullet, liaison to Daphne, AL Ecological Services field office -USFWS Ecological Services

Dr. Mike Osland, Research Ecologist – US Geological Survey

MONITORING GOAL: Collaboratively Evaluate Collective Progress

LANDSCAPE-SCALE MONITORING

While a comprehensive program or assessment of monitoring programs and capacity throughout the GCPO region remains a tremendously difficult and resource-intensive task, the GCPO LCC made progress in 2016 working with a variety of partners.

The Missouri Dept. of Conservation (MDC) intends to generate a landscape health index to monitor their priority geographies and demonstrate that their conservation investments are producing results for fish and wildlife. The MDC is developing and testing rapid protocols for assessing site-level conditions and monitoring changes, but they desire to expand this concept to assess landscape status and change. A number of issues must be addressed, including the question of how to monitor the status of private lands (very little land in Missouri is actually owned by MDC). The GCPO LCC has been facilitating the development of the landscape



health index and will continue to provide facilitation and analytical capacity to MDC during the development and testing phases. Two landscapes will be selected in early 2017 to serve as pilots, and additional partners (e.g., the Natural Resources Conservation Service, US Forest Service, USFWS, etc.) will be asked to join. This project could serve as a prototype for landscape scale monitoring elsewhere in the GCPO.



The USFWS Alabama Ecological Services office is working on a proposal for a statewide inventory of monitoring programs for threatened and endangered bat species. Many partners are supportive of sharing their data, and the ES office has compiled good spatial layers to assist in prioritizing survey efforts by species on Resource Management Service timber properties. The objective is to find the state distribution for listed bat species in Alabama, but agencies need to collect survey data that is not all under one umbrella and not standardized.

COMMUNICATIONS GOAL: Effective Communications Platforms

COMMUNICATIONS HIGHLIGHTS

- Staff developed a new and expanded set of communications goals for the GCPO LCC, reflected in the GCPO LCC 2016-2020 Communications Strategy.
- Traffic to the GCPO LCC Conservation Planning Atlas showed an increase of almost 33%, with a total of about 4,776 sessions. Again, new visitors constituted a significant part of CPA traffic (~46%). Traffic to gcpolcc dot org and the Projects Database combined totaled almost 13,500, down about 14%. When combined, the traffic for all GCPO LCC sites (including the new GCPO LCC YouTube channel) measured by sessions was down by about 5% from 2015 (18,400 total).
- Monthly newsletters in 2016 highlighted key accomplishments to a steady audience totaling 1,192 subscribers at the end of the year, and also served as a means of inviting selected audiences to Blueprint workshops. The LCC's news subscription rate is still growing but at a slower rate than in the startup years. Newsletter campaigns continue to drive traffic to the website, and the GCPO LCC news list continues to perform well against industry averages for government, nonprofits, and education. In 2015, both open and click rates declined slightly to 31% and 10% respectively (from 33% and 12% in 2015). Our best explanation for the slight declines in overall 2016 rates is that the GCPO LCC news list has matured and encompasses a core of engaged people, while new subscribers (such as foresters, see below) are coming into the fold for specific reasons, and other topics may be of lesser interest to these audience segments.
- The GCPO LCC established a YouTube channel in 2016 to host 7 recorded webinars showcasing
 - 7 completed projects. Combined, the webinars reached a total of 440 registrants, who either attended the live presentation or received a subsequent link to the recording. An average 76% of registrants signed up to receive the GCPO LCC newsletter. A successfully employed outreach strategy was seeking approval from the Society of American Foresters to provide Continuing Forestry Education credits for four forest-related project webinars.
- Brief 8- to 10-page Assessments-in-Brief for three of the draft Ecological Assessments were produced as a means of highlighting key findings:
 - Grasslands
 - Upland Hardwoods (under revision)
 - Upland Streams
- The GCPO LCC continues to maintain a modest social media presence: Find us on Twitter and Flickr.

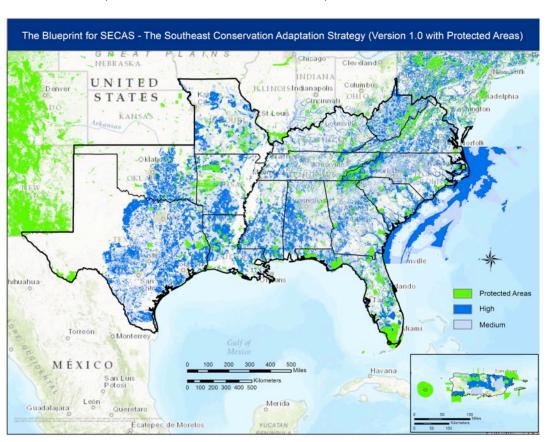


BEYOND LCC BORDERS

SOUTHEASTERN CONSERVATION ADAPTATION STRATEGY (SECAS) LEADERSHIP SUMMIT

The SECAS Conservation Leadership Summit served as the rollout for the **SECAS Blueprint 1.0**, the culmination of five years worth of conservation planning by six LCCs across the Southeast. The Summit enabled participants to reflect upon and celebrate their accomplishments as well as chart a

path forward. SECAS was initiated in 2011 by the SEAFWA states, which then engaged the federal Southeast Natural Resource Leaders Group (SENRLG) in early 2012. The newly formed Landscape Conservation Cooperatives (LCCs) across the Southeast, including the GCPO LCC, along with the Climate Science Centers (CSC) and the Southeast Aquatic Resources Partnership (SARP), then provided technical capacity and the legwork to make SECAS a reality.



The Summit was well attended – standing room only – with representatives from most of the SEAFWA states, including seven Directors; eight of the twelve federal agencies engaged in SENRLG; and numerous state and federal agencies and non-governmental organizations (NGOs). The Summit sought to (1) generate excitement and continued support for the SECAS Blueprint; (2) affirm continued support and engagement from the SEAFWA and SENRLG leadership; and (3) demonstrate the breadth of accomplishments to date.

The Summit achieved its goals, as the SEAFWA board of directors subsequently voted to affirm their continued leadership in SECAS by engaging in the Blueprint process and to recommend improved options for conservation funding in spring 2017. The SECAS team, which includes the GCPO LCC, committed to continual improvement of the Blueprint and an annual update each fall during the SEAFWA Conference. Other LCCs and the Association of Fish and Wildlife Agencies are now excited about the SECAS message, and the process may serve as a template for similar such efforts in other regions of the eastern United States.

PROJECT THEMES IN 2016

Projects in which the GCPO LCC is a funder or major partner address strategic requirements for planning a connected network of lands and waters and for effective conservation delivery under conditions of rapid change. Projects completed in 2016 are listed by thematic conservation issue below. For many completed projects, the linked Project Database records also include links to recorded webinars presenting project results.

OPEN PINE & GRASSLANDS: CONSERVATION & MANAGEMENT

Open Pine Habitat: Desired Ecological States Provided by Managed Forests

This project evaluated the extent to which planted pine can provide Desired Ecological States for wildlife and made specific recommendations for forest managers.

Developing and Applying Desired Forest Condition Metrics to Enhance Wildlife Habitat and Biodiversity within Southern 'Open Pine' Ecosystems

By assessing wildlife habitat value using defined "desired forest condition" metrics, this project aimed to address wildlife habitat and ecological integrity for the full range of open pine ecosystems within the GCPO region, along with protocols that can facilitate on-the-ground assessments. The GCPO LCC is currently working with graduate students at the Noxubee National Wildlife Refuge in Mississippi to field test these protocols.



Using Wildlife Habitat Models to Evaluate Management Endpoints for Open Pine Woodland and Savanna

Using more than 10 years of monitoring data to develop biometric habitat models for 9 of the GCPO LCC's open pine species endpoints, this project also evaluated the desired ecological states for open pine and focal species as defined in the draft **Integrated Science Agenda**.

Grassland Habitat Management for Diverse Taxa and Stakeholders

This project expanded the East Gulf Coastal Plain Joint Venture's existing grassland bird habitat model for prioritizing habitat management to include non-avian species of conservation concern in the GCPO region. It also incorporated non-biological economics and cost effectiveness objectives into the decision framework.

FOREST MANAGEMENT

Forest Characterization Database

By providing a place for partners to store, manage, and share forest inventory data collected during timber cruises of bottomland hardwood forest, a landscape-scale picture of forest management can emerge. Equally as important, foresters with forest management goals that are driven by the needs of wildlife and recreation will be able to collect and input the biological data that are most important

for wildlife, such as midstory and understory canopy, vine component, percentage of switch cane and cavities per acre.

Gulf Coastal Plains and Ozarks Landscape Conservation Cooperative Black Bear Habitat Assessment and Associated Landscape Endpoints

To improve the existing Louisiana and Ozarks black bear habitat models, more accurate, up-to-date landcover data, and detailed agricultural and urbanization data were incorporated. The resulting seamless landscape scale model of black bear habitat identifies areas of importance for bears and specific forest management endpoints needed to maintain or create quality bear habitat.



CLIMATE ADAPTATION



Guiding Regional Conservation Planning under Climate Change: Integrating dynamic landscape population models with structured decision making

This project integrated dynamic landscape population viability models and structured decision making to choose among conservation scenarios that best meet desired endpoints for focal wildlife species in the Ozark Highlands region under climate change. This project provides a framework for proactive assessment of adaptation strategies and will be expanded to cover the full GCPO region starting in 2017

Changes in Forested Landscapes of Gulf Coastal Plains and Ozarks Under Alternative Climate and Urban Growth Scenarios

This project determined the effects of climate change, urbanization, succession, disturbance, and management on forest landscape change in the GCPO region for the period 2000-2100. The effects were of under 4 climate scenarios, 3 forest management scenarios, and 2 urban growth scenarios were analyzed. Among other things, results showed that timber harvest management can have a significant impact on the longevity of shortleaf pine toward end of century, particularly throughout the southern portion of its range.

Climate resilience: coastal wetland migration LCD

This project was initiated in 2016 as a followup to multi-LCC **Tidal Wetland Migration project** completed in 2015. Funded by the South Central and Southeast Climate Science Centers, this project is initiating a landscape conservation design process for specific sites across the Gulf in collaboration with partners, such as the National Estuarine Research Reserves.

AQUATIC CONSERVATION

Freshwater Aquatic Landscape Condition and Species Endpoints for the Gulf Coastal Plains and Ozarks Landscape Conservation Cooperative Region

Southeast Aquatic Resources Partnership engaged regional aquatic experts to provide input into the development of desired ecological states - defined by landscape and species endpoints - for each of the broadly defined Freshwater Aquatic habitat types listed in the GCPO LCC's draft Integrated Science Agenda.



ASMT PROJECT GENERATION & PRIORITIZATION PROCESS

In 2016, the LCC's Adaptation Science Management Team (ASMT) developed a plan for selecting projects to fill science needs. The plan involves releasing a request for Statements of Interest (i.e. pre-proposals) in odd years (the first request was issued in February 2017). SOIs will be ranked by the team, and top-ranked proposals will be invited to submit full proposals once appropriations are known. In even years, the team will target unfunded SOIs or emerging issues.

