

# **Assessment of Biological Planning, Design, Delivery, & Evaluation Issues in the East Gulf Coastal Plain**



**Prepared by:**

**Members of the East Gulf Coastal Plain Technical Working Group  
and the EGCP Joint Venture Office**

**10 November 2009**

In 2008, the East Gulf Coastal Plain Joint Venture's implementation plan was approved by the US Fish & Wildlife Service, Division of Bird Habitat Conservation, and the partnership was conveyed official Joint Venture status. On May 28-29, 2009, the Management Board met in Holly Springs, MS and discussed several biological and technical issues in relation to the future direction and investments of the partnership. Ultimately, the management board charged a subset of technical team members to develop a strategic framework to guide activities of the partnership for the immediate future.

This team met in Jackson, MS on September 28-29, 2009 and identified several technical and scientific needs in the areas of planning, design, delivery, monitoring and research. To that extent, this document outlines a relatively detailed list of issues and associated tasks needed to advance bird conservation in the East Gulf Coastal Plain. It is anticipated that this document will facilitate and guide programmatic and financial decision making such that partners can organize their collective capacity and funding to improve efficiency and effectiveness of conservation efforts. A more formal and refined document will be prepared in the future as the partnership progresses.

## **CONTENT:**

*Section 1. Comprehensive list of products needed to advanced bird conservation framed by the functional elements of Strategic Habitat Conservation.*

*Section 2. Short-list of tasks that need to be addressed in the immediate future.*

**SECTION 1. COMPREHENSIVE LIST OF PRODUCTS NEEDED TO ADVANCE BIRD CONSERVATION FRAMED BY THE FUNCTIONAL ELEMENTS OF STRATEGIC HABITAT CONSERVATION.**

**(1) BIOLOGICAL PLANNING** – *Biological planning includes defining the ecological context and limiting factors of a geographic area, prioritizing habitats and species, developing species-habitat relationships, and determining appropriate population objectives.*

**High Priority Needs:**

- Prioritize Habitats
  - ✓ Longleaf Pine
  - ✓ Grasslands
  - ✓ Forested Wetlands
  - Upland Hardwoods / Mixed Hardwood-Pine
  - Beaches<sup>1</sup>
- Select appropriate focal species via a consistent methodology
- Develop population objectives for focal species
- Develop species-habitat relationships for focal species
- Develop habitat objectives to support population objectives for high priority species

<sup>1</sup> Requires coordination with the Gulf Coast Joint Venture

**(2) CONSERVATION DESIGN** – *Conservation design is the process of determining the amount, condition, configuration, and location of habitats needed to support birds at prescribed levels.*

**High Priority Needs:**

- Map and assess current and historic landscape conditions.
  - Longleaf Pine
  - Grasslands
  - Forested Wetlands
  - Upland Hardwoods/Mixed Hardwood-Pine
- Develop remote sensing techniques to facilitate conservation planning/evaluation.
  - Mapping of habitats
  - Mapping of disturbance patterns (e.g., fire)

- Develop GIS-based, conservation estate data layer.
  - Public ownership
  - Private conservation easements/agreements
- Develop decision support tools to define focal areas to better target management, conservation, and restoration.
  - Longleaf Pine/Open-Pine
  - Grasslands
  - Forested Wetlands
  - Upland Hardwoods/Mixed Hardwood-Pine
- Develop desired forest (future) conditions matrix.
  - Longleaf Pine/Open-Pine
  - Grasslands
  - Forested Wetlands
  - Upland Hardwood/Mixed Hardwood-Pine
- Downscale climate change and urban sprawl models to the East Gulf Coastal Plain.
- Develop GIS-based (digital) soils data layer.

**(3) CONSERVATION DELIVERY** – *Planning tools that focus habitat delivery, funding, and restoration and management capability through multi-organization projects, and affecting policy issues (e.g., prescribed fire) and programs (e.g., Farm Bill) are essential components of a successful conservation delivery program.*

**High Priority Needs:**

- Develop an implementation strategy to promote the effective use of the Open Pine Decision Support Tool (DST).
  - Peer-reviewed publication(s)
  - Brochures and flyers
  - Webinars
  - Workshops
- Increase effective use of USDA Farm Bill Programs.
  - Increased coordination/communication
  - Enhanced understanding of Farm Bill Programs
  - Shared positions
  - Participation in technical teams/committees
  - Multi-state habitat delivery projects
  - Focused Projects (CREP, SAFE, etc.)

- Improve implementation strategy of prescribed fire programs.
  - Increased capacity to address issues such as smoke management, particulate matter, and reduced burn windows
  - Consistency in burn regulation among organization and agencies
  - Improved policies related to the use prescribed fire and return intervals
  - Increased outreach/education about prescribed fire as a management tool
  - Create/coordinate/communicate with Fire Councils
- Develop strategy to address carbon sequestration and bio-fuels initiatives.
  - Evaluate pros and cons with respect to conservation
  - Develop new partnerships
- Increase funding and capacity to deliver habitat-based projects on private and public lands including National Wildlife Refuges, National Forests, and State-owned Wildlife Management Areas.
  - Increased staff
    - Cooperative positions
    - Habitat teams
  - Increased base funds
    - New cost-share programs/incentives
    - Multi-state cooperatives

**(4) INVENTORY AND MONITORING** – *Tracking and assessment programs to facilitate biological and fiscal accountability associated with conservation activities.*

**High Priority Needs:**

- Coordinated population monitoring program to assess management strategies.
  - Birds
  - Candidate, Threatened, and Endangered Species
- Coordinated habitat inventory programs to assess habitat conditions.
  - Short-term programs (fine-scale sampling)
  - Long-term programs (large-scale sampling)
- GIS-based habitat tracking system.
  - Longleaf reforestation (public and private)
  - Grassland restoration (public and private)
  - Forested wetlands reforestation (public and private)
  - Prescribed fire (public and private)
  - Conservation estate (public and private)

**(5) ASSUMPTION-DRIVEN RESEARCH** – *Research directed at testing and evaluating assumptions and data gaps identified throughout the planning process.*

**High Priority Needs:**

- Evaluation of distribution and density of wintering Henslow’s Sparrows in pine flatwoods and pine-upland habitats.
- Evaluation of priority bird densities and vital rates to native warm-season grass restoration and management strategies.
- Evaluation of priority bird densities and vital rates to longleaf (open-pine) management restoration and management strategies.
- Evaluation of beach nourishment activities on beach-dependent birds.
- Evaluation of the Lower Mississippi Valley Joint Venture’s Desired Forest Condition metrics to floodplains within the East Gulf Coastal Plain.
- Evaluation and sensitivity analysis of assumptions and metrics underlying the Open Pine DST.
- Evaluation of Open Pine DST tool to adequately represent other priority species (e.g., gopher tortoise, black pine snake, etc.).

**(6) COMMUNICATION** – *Allows the partnership to collaborate and communicate goals, objectives, and strategies, both internally and externally.*

**High Priority Needs:**

- Develop and maintain up-to-date website.
- Develop and share information through list serve.
- Enhance communication among joint venture office staff, management board members and working groups.

## **SECTION 2. SHORT-LIST OF TASKS THAT REQUIRE IMMEDIATE ATTENTION.**

### ***Longleaf Pine***

Task: *Utilize Open Pine DST and other ancillary data to delineate focus areas for the restoration of longleaf pine.*

Task: *Develop and implement outreach strategy for the Open Pine DST and focus areas.*

Task: *Develop Desired Forest Conditions for longleaf pine (open-pine) habitats.*

Task: *Map extant longleaf pine stands within the East Gulf Coastal Plain.*

Task: *Develop GIS-based tracking system for longleaf pine reforestation efforts.*

Task: *Sensitivity analysis of assumptions and metrics underlying the Open Pine DST.*

Task: *Evaluation of Open Pine DST to adequately represent other priority species (e.g., gopher tortoise, black pine snake, etc.).*

### ***Grasslands***

Task: *Create and endorse a formal grassland working group to advance conservation planning and delivery within this habitat.*

Task: *Develop biological foundation and conservation design tools to facilitate delivery within grasslands.*

### ***Forested Wetlands***

Task: *Create ad-hoc working group to review Lower Mississippi Valley Joint Venture's forested wetland conservation planning approach and its applicability to floodplains within the East Gulf Coastal Plain.*

### ***Coastal Habitats***

Task: *Coordinate with the Gulf Coast Joint Venture and develop cross-Joint Venture coordination and planning mechanisms to address coastal issues.*

### ***Conservation Design***

Task: *Pursue remote sensing technologies and methods to identify specific composition and structural characteristics (e.g., longleaf pine, native warm season grasses, basal area, etc.) to facilitate conservation designs and monitoring activities.*

***Delivery***

Task: *Create formal working group to foster increased coordination and communication of delivery programs with an emphasis on the use and application of Farm Bill Programs.*

Task: *Review carbon sequestration and bio-fuel programs and provide recommendations on potential impacts to wildlife habitat and new partnerships.*

***Communication***

Task: *Develop an effective web page to facilitate communication and coordination.*

**ACKNOWLEDGEMENTS**

This document is a draft product of the East Gulf Coastal Plain Joint Venture and benefited from input by several members of the Technical Working Group including:

Roger Applegate, Roger Clay, Barry Grand, Bill Gray, Rick Hamrick, Ed Laurent, David Richardson, Catherine Rideout, Elena Sachs, Michael Seymour, Eric Soehren, Scott Somershoe, Eric Spadgenske, Dagmar Thurmond, Shawchyi Vorisek, Randy Wilson, Nick Winstead, and Mark Woodrey.