The Southeast Conservation Adaptation Strategy: *Aligning Actions for Success* Tuesday, October 31, 2017



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SEAFWA 2017 Conference



The Southeast Conservation Adaptation Strategy:

Aligning Actions for Success

Tuesday, October 31, 2017

Welcome to SECAS: Session Overview





Gordon Myers (NCWRC)



Susan Gibson (USACE)

US Army Corps of Engineers®



Part 1 – Aligning Actions for Success - Value and Need

8:00 Welcome to SECAS Gordon Myers (NCWRC) Susan Gibson (USACE)

8:10 State Director Perspective Gordon Myers (NCWRC) Value of working across state lines

8:25 Facilitated Interactive Dialogue Identify the values/concerns of regional approaches

Where do we want to be in 5 years?



Susan Gibson (DoD)

The value of working across jurisdictional lines



- SENRLG/SECAS Connection
- Why DOD?
- Poll: Who has worked with DOD on a project?









State Director Perspective

Gordon Myers (NCWRC)

The value of working across jurisdictional lines



Interactive Discussion

Where do we want to be in 5 years?



What are the values and concerns of regional approaches?

• Sdaf



Part 2 – Fundamental Building Blocks

8:35 SECAS Blueprint Version 2.0

Rua Mordecai (South Atlantic LCC)

- Improvements from V1.0
- How SWAPs have been included

8:50 Interactive Dialogue

- Thoughts, reactions & gap identification
- Needs and improvements for V3.0?



SECAS Blueprint 2.0

Rua Mordecai, Science Coordinator



10-31-2017

Overview

- Improvements in SECAS Blueprint 2.0
- SWAP integration
- High priority improvements for next update

Reminders about SECAS Blueprint

- Represents priority places for shared action
 - Not just about land protection
- Integrates existing subregional efforts
- Two priority classes
 - 1. High (30% of area)
 - 2. Medium (20% of area)

The Blueprint for SECAS - The Southeast Conservation Adaptation Strategy (Version 1.0 with Protected Areas)



Priority improvements in this update

- Update using the most recent data available
- Improve consistency in methods and approaches
- Priorities for action in the next 10 years in the face of future change

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The Blueprint for SECAS - The Southeast Conservation Adaptation Strategy (Version 1.0 with Protected Areas)



The Blueprint for SECAS - The Southeast Conservation Adaptation Strategy (Version 2.0 with Protected Areas)



Consistency improvements in version 2.0

- Improved climate change response consistency
 - Appalachian now includes corridors and TNC resilience

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- Improved consistency across LCC boundaries
 - Biggest improvements in Appalachian, North Atlantic, and South Atlantic integration





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- Improved consistency across LCC boundaries
 - Biggest improvements in Appalachian, North Atlantic, and South Atlantic integration
- Improved consistency beyond the South
 - New connection with CHAT connects with western states

Some known issues

- Overlap zones are being slightly over-prioritized
- Some ecosystems in specific places are being under-prioritized
- Corridors are being under-prioritized in the western part of SECAS
- Full list will be available with SECAS Blueprint 2.0 release

Wildlife action plan integration



Wildlife action plan integration



Priorities so far for next update

- Update to most recent data
- Continue to improve consistency
- Create easy tools to filter the Blueprint
- Complete coverage for West Texas

Interactive Discussion

What additional questions do you have about this latest version of the SECAS blueprint?



What additional features or capabilities would you like to see in the Blueprint for it to be useful to the work you do (beyond V2.0)?

What final questions do you have regarding the functionality or uses of the Blueprint?

What additional questions do you have about this latest version of the SECAS blueprint?

What additional features or capabilities would you like to see in the Blueprint for it to be useful to the work you do (beyond V2.0)?



Part 3 – Use Cases & Application A Deeper Dive

9:10 Using the Blueprint to Draw Resources into the Region

- Southeast At-Risk Species Mike Harris (USFWS)
- Fire Resilient Landscapes Mallory Martin (SALCC)
- Marsh Migration Bill Bartush (GCPO LCC)

9:25 National State Wildlife Action Plan Meeting Brian Branciforte (FL FWC)

9:35 Tools to Augment Decision Making

- Using the Blueprint to Recover Gopher Tortoise Jon Ambrose (GA DNR)
- Threats Assessment Tool and Conservation Opportunities Assessment Tool – Cindy Simpson (NCWRC)
- Alligator Gar and flood inundation Alan Brown (FWS)

At-Risk Species Conservation Opportunities in the Southeast: SECAS Case Study

Mike Harris, At-Risk Species Coordinator Southeast Region

October 31, 2017



The Challenge

60%

of national listing workload under MDL is in (SE and NE Regions)



species require 90-day or 12month petition findings

And workload is expected to

increase in the future.



National 7-Year Workplan 2017-23

- Announced September 1, 2016
- Sets long-term schedule for listing actions
- Includes remaining candidates and 320 species
- Prioritizes species for decisions
- Coordinated with States
- Implementation began in FY2017

https://www.fws.gov/endangered/improving_esa/pdf/Listing%207-Year%20Workplan%20Sept%202016.pdf
SECAS Collaboration

- Science products to inform species status assessments
- Conservation planning to support implementation of conservation actions for atrisk species.



Species Status Assessments

The SSA Framework is an anlytical approach for assessing biological status



CONDITION

Species Status Assessments



Species Status Assessmen



VOLUNTARY CONSERVATION TOOLS

June 2013

Range-Wide Conservation Strategy for the Gopher Tortoise



 Working Lands for Wildlife

- Partners for Fish & Wildlife
- State Wildlife Agencies
- CCAs and CCAAs

Common Name: Gopher Tortoise Scientific Name: Gopherus polyphemus

Listing Status and Date: Threatened: (populations west of the Mobile and Tombigbee Rivers in AL, MS,

Collaboration with Partner Initiatives



PROTECTING WILDLIFE HABITAT AND DELIVERING WOOD PRODUCTS WITH SOUTHERN FAMILY FOREST LANDOWNERS

GOPHER TORTOISE INITIATIVE PARTNERSHIP MEETING

Tuesday, August 16 10 am - 2 pm

The Nature Conservancy 100 Peachtree Street NW 18th Floor Atlanta, GA 30303

-Lunch Provided-

PURPOSE

To develop a coordinated approach for the landscape scale protection and management of key sites across south Georgia.



Successes- 108 Species

34 Species Not-Warranted 12-month findings







45 Species Withdrawn from Petition

29 Species notsubstantial 90-day findings

Using the Blueprint to Draw Resources into the Region: Fire Resilient Landscapes

Mallory Martin South Atlantic LCC





Southeast Conservation Adaptation Strategy A Vision for 2060



- Use Cases and Application: Adding Capacity and Bringing In New Resources - Resilient Landscapes and Fire
- Mallory Martin
- Coordinator, South Atlantic LCC

Using the Blueprint to attract new funding



New on the ground funding

 ~ \$3 million dollars in the first three years to support prescribed fire on state, private, and federal lands



Reporting on impacts



- Prescribed fire at John Bethea State Forest in FL
- Joint effort between Florida Forest Service, Osceola National Forest, and FWS
- New \$ provided staff and aerial support

Scaling up to the SECAS geography



Using the Blueprint to Draw Resources into the Region: SECAS Marsh Migration Models

Bill Bartush Gulf Coast and Prairies LCC

Gulf Coast Prairie Landscape Conservation Cooperative



SECAS marsh migration modeling

Working together -engaging people as partners

All of us are much better than anyone of us! October 30, 2017 – Louisville, KY



Defining a Common Landscape Vision





Gulf Coast Vulnerability Assessment "Transformational"



Sam D. Hamilton Award

Description

- Collaborative effort ~70 Gulf of Mexico partners
- Vulnerability of ecosystems species Gulf-Wide



ScienceBase

Webinar

Gulf Coast Marsh Migration



Coastal wetland systems



Tidal marsh migration under sea level rise



ScienceBase

Description

Enwright, N.M., Griffith, K.T., and Osland, M.J., 2015, Incorporating future change into current conservation planning—Evaluating tidal saline wetland migration along the U.S. Gulf of Mexico coast under alternative sea-level rise and urbanization scenarios: U.S. Geological Survey Data Series 969, http://dx.doi.org/10.3133/ds969.

Webinar Conservation Planning Atlas



Communities



How has our Shared Vison Informed future Action?

RESTORE evaluates Gulf-wide Impacts Salt Bayou – McFaddin Project 2017 Awarded \$15.8 Million - Deepwater Horizon





Integrating Florida's Wildlife Action Plan with LCC Planning Atlases



Brian Branciforte (FL FWC) Run

- Update on National SWAP meeting
- Next steps for seamless SWAPs

Using the Blueprint to Draw Resources into the Region: Southeast At-Risk Species

Jon Ambrose (GA DHR)





WILDLIFE RESOURCES DIVISION

Gopher Tortoise Conservation Initiative



October 31, 2017

Department of Natural Resources Wildlife Resources Division

Jon Ambrose

Gopher Tortoise Status

- State protected species
- Candidate for federal protection under Endangered Species Act
- Impacted by habitat loss and fragmentation
- Federal listing could result in significant economic impacts



Gopher Tortoise Population Viability

- Criteria developed in 2013 by working group
- Viable = Likely to persist for 100+ years
- Minimum of 250 adults
- Minimum density of 0.4/ha (1 per 6.2 acres)

Range-Wide Conservation Strategy for the Gopher Tortoise

June 2013



Common Name: Gopher Tortoise Scientific Name: Gopherus polyphemus Listing Status and Date: Threatened: (populations west of the Mobile and Tombigbee Rivers in AL, MS,





Longleaf **ARC** Project: At-risk Amphibian & Reptile Conservation in the longleaf system

Brian Crawford (University of Georgia), Mike Harris (USFWS), Clint Moore (USGS, UGA), John Maerz (UGA) & Todd Jones-Farrand (Gulf Coastal Plains & Ozarks LCC)



Project objectives

- Strengthen partner network
 - Decision-makers, managers, researchers, landowners, enthusiasts

Synthesize data & knowledge

- Multiple data types
- Formal expert input

Range-wide species status models

- Current status
- Future threats
- Potential management



Longleaf ARC Project



OVERALL GOAL: Inform *where* and *how* to invest conservation resources for five at-risk herpetofaunal species in the longleaf pine ecological system



Progress: Species data



Records

61,870

2,381

1,745

1,122

301

Progress: Species status models



Tools to Augment Decision Making



Cindy Simpson (NCWRC) [remote] Threats Assessment Tool and Conservation Opportunities Assessment Tool


Decision Support Tools:

-Conservation Opportunity Areas (COAs) -Habitat Threats Risk Assessment (TRA)

> Integration of the North Carolina Wildlife Action Plan, Southeast Gap Analysis Data, and NC Habitat Threats Risk Assessment Tool



Cindy Simpson NC Wildlife Resources Commission

Identifying Conservation Opportunity Areas (COAs)



Analyze COAs for current and potential habitat threats



THREAT DATA: Predicted and Known Occurrences

11 threat categories with GIS data layers from 20 potential threats to wildlife, including habitat loss and stressors that affect habitat quality.

- 1. Habitat loss Forest, Wet Forest, Wet Herbaceous, Open, Scrub/Shrub (2010-2050)
- 2. Urban growth Predicted urban development (2010-2050)
- 3. Fire suppression Density of urban development (2010-2050)
- 4. Transportation corridors Divided center line highways (2010-2050)
- 5. Sea level rise Undeveloped upland and terrestrial land cover change (2010-2050)
- 6. Nutrient loading Manure and synthetic nitrogen fertilizer application
- 7. Atmospheric deposition Total nitrogen and sulfur deposition
- 8. Energy development Triassic basin and wind power
- 9. Forest health Forest insect/disease risk
- **10.** Hydrologic alteration Number of dams
- 11. Impaired waters 303(d) Biota and metal impairments

Static data, valid as of a specific date

Modeled data that can be projected

over time

EXAMPLE: Threat Data for Transportation Impacts



Many threats have highly skewed distribution on the landscape

- entirely absent in many areas (white spaces)
- relatively rare high values in few areas (darker spaces)

EXAMPLE: Severity Ranking of Transportation Impacts



Uses cumulative distribution function (CDF) derived severity scores to provide a measure of threat exposure



EXAMPLE: Threat Occurrence for Transportation Impacts



Otherwise, the threat is considered absent.

EXPOSURE ANALYSIS

Uses Bayesian Network to generate measures of exposure and a threat profile

- 1. Identification of threats,
- 2. A spatial assessment of threats at multiple scales,
- 3. Measures of threat intensity or severity using cumulative distribution function (CDF),
- 4. Provides a means to assess threat distribution and intensity over time (e.g., urban growth, climate change),
- 5. Interpret results using risk rating matrix to inform decisions.



Exposure Risk Rating

			Gint	y @ X		
			Q ☆ ♦ Ge ।	M () 🕅	:	
			Cindy »	Other bookmark	2	
		NC For	est Service		•	
Wildlife Action Plan		- Forest Action Plan				
, Introduction		(Presenter: Sean Brogan, NCFS)				
Decision Support Tools: Conservation Opportunity Areas (COA) and Threat Risk Assessment (TRA)		- Pre-harvest Planning Tool				
CLICK HERE TO OPEN BOTH TOOLS IN A NEW WINDOW			s: Alan Coats and Bill Swartley	, NCFS)		
This tool works on Chrome or Firefox only.		Watershed Stewardship Network -				
 As of October 2, 2017: The Decision Support Tools (Conservation Opportunity Area. Threats Risk Assessment) interface will be sporadically offline as improvements are made. Please check back or bookmark the page and try again if you are not able to access it at this time. 		- <u>Waters</u>	hed Stewardship Network			
Two new web-based decision support tools (DSTs) were launched in Spring 2017 to support priority conservation recomm Wildlife Action Plan (NCWAP). They are the Threat Risk Assessment (TDA) tool and the Conservation Opportunity Area (CC	North Carolina Wildlife Habitat 🗙 🕂	/			the second se	
Download PDF documentation:	(i) tecumseh.zo.ncsu.edu/coa/				C Q Search	
User Guide and Step-by-Step Instructions	North Carolina Wildlife Habitat Threat Data Viewer and Analysis Tool					Biodiversity and Spatial BaSIC
COA-TRA Analysis Worksheet	More Info		Tool H	lelp	Contact Us	
	COA Data Analyze AOI Print Setup 🗢 🕵 💐 🗄 🗸 🕑					
Case Studies - Examples of How to Interpret COA-1 RA analysis results (<i>will be available soon!</i>)	Identify COAs Select a community below to rank the unprotectedness of associated SGN species predicted habitat by subwatershed or select a river basin to identify priority subwatersheds based on aquatic resources. Submit COAs for threat analysis Coesta Pan Community Name SGCN Terrestrial Cares & Mines 2 Mixed Hardwood Pine Forest, Managed Timberland Dry Longiead Pine Forests 27 Maritime Crasslands 33 Sand, Shell, and Wrack Line 30		Krigerie Cry of Daligenga A	annan an Ashevite Greevite Saura an Asha	Barrise Urpetterile Barrise Urpetterile Urpetterile Urpetterile Urpetterile Urpetterile Urpetterile Urpetterile Urpetterile Urpetterile Urpetterile Urpetterile Urpetterile Urpetterile	eenaure senaure senaure senaure senaure kory rake
	Successional Communities - 29 Herb Bedmont Mountains River Basin Priorities		Atlanta	Augusta	South Carolina Myrue Beech Beech Challesion	

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Tools to Augment Decision Making





Alan Brown Alligator Gar Habitat Suitability Index

Baton Rouge Fish and Wildlife Conservation Office Private John Allen National Fish Hatchery St. Catherine's Creek National Wildlife Refuge Gulf Coastal Plains / Ozarks LCC NWR Inventory and Monitoring Initiative Southeastern Aquatic Resource Partnership

St Catherine Creek National Wildlife Refuge



Towards an Empirical Model

	Staging	Spawning	Summer	Winter
Water presence	Х	Х	Х	Х
Water class	Lake = optimal River = suitable	Temporarily flooded area	Any open water	River = optimal Lake = suitable
Flood frequency	Permanent	Annual = optimal 1/7 years = minimum	Permanent	Permanent
Water depth	4'-16'	1'-4'	N/A	>10'
Water temperature	>50°F	65-72°F	N/A	N/A
Vegetation type	N/A	Herb.wetlands, ag, and moist-soil = optimal shrub-scrub = suitable	N/A	N/A
Connectivity	Х	Х	N/A	N/A
Flood duration	N/A	60 days = optimal 10 days = minimal	N/A	N/A

Combining Data – Habitat Suitability Index



Alligator Gar Spawning HSI - St. Catherine Creek NWR



HSI cliped Value Out Inundation Good, Habitat Good, Temperature Good Inundation Good, Habitat Good, Temperature Acceptable Inundation Good, Habitat Good, Temperature Poor Inundation Good, Habitat Poor, Temperature Good Inundation Good, Habitat Poor, Temperature Acceptable Inundation Good, Habitat Poor, Temperature Poor Inundation Too Dry, Habitat Good, Temperature Unknown Inundation Too Dry, Habitat Poor, Temperature Unknown Inundation Too Wet, Habitat Good, Temperature Good Inundation Too Wet, Habitat Good, Temperature Acceptable Inundation Too Wet, Habitat Good, Temperature Poor Inundation Too Wet, Habitat Poor, Temperature Good Inundation Too Wet, Habitat Poor, Temperature Acceptable Inundation Too Wet, Habitat Poor, Temperature Poor Mainstem Mississippi River

Locating Potential Areas to Sample or Deliver Conservation

HSI cliped Value

Out

Inundation Good, Habitat Good, Temperature Good
Inundation Good, Habitat Good, Temperature Acceptable
Inundation Good, Habitat Good, Temperature Poor
Inundation Good, Habitat Poor, Temperature Good
Inundation Good, Habitat Poor, Temperature Acceptable
Inundation Good, Habitat Poor, Temperature Poor
Inundation Good, Habitat Poor, Temperature Poor
Inundation Good, Habitat Poor, Temperature Poor
Inundation Too Dry, Habitat Good, Temperature Unknown
Inundation Too Dry, Habitat Good, Temperature Good
Inundation Too Wet, Habitat Good, Temperature Good
Inundation Too Wet, Habitat Good, Temperature Poor
Inundation Too Wet, Habitat Poor, Temperature Good
Inundation Too Wet, Habitat Poor, Temperature Poor
Inundation Too Wet, Habitat Poor, Temperature Acceptable
Inundation Too Wet, Habitat Poor, Temperature Poor



Break





Part 4 – Demonstrating Value and Support for Expansion

10:30 Relevance of Conservation Beyond Fish & Wildlife *Wylie Carr (USFWS)*

10:35 Mapping Future Forests of the South *Rachael Greene (MS State)*

10:50 A Forum for Landscape Conservation Collaboration – Sharing Expertise, Innovation, and Resources *Greg Wathen (TWRA)*

- Value of partnerships in the Southeast
- Managing data and aligning SWAPs across state lines

11:05 Expanding the Vision *Mark Humpert (AFWA)* Linkages to the 'Universe'

11:20 SECAS 2018 and Beyond

Gordon Myers, Susan Gibson, Mike Oetker

How SECAS meets the Conference theme: "Creative Conservation Strategies for 21st Century Challenges."

11:30 Interactive Dialogue

Demonstrating Value and Support for Expansion

Wylie Carr, Ph.D.

Social Scientist US Fish & Wildlife Service Atlanta, GA (404) 679-7217 wylie_carr@fws.gov





SECAS Symposium SEAFWA Conference 2017

Part IV: Demonstrating Value and Support for Expansion

> Wylie Carr, Ph.D. Social Scientist US Fish & Wildlife Service Atlanta, GA (404) 679-7217 wylie_carr@fws.gov

Interactive Discussion



Who else needs to be a part of this conversation to realize the SECAS vision?

Enter answers via chat box

• A

Mapping Future Forests of the South

Rachael Greene





Collaborative Conservation SECAS Style

Perspectives from an LCC Coordinator

Greg Wathen Gulf Coastal Plains & Ozarks LCC SEAFWA Conference Louisville, KY October 31, 2017



- Leadership
- Provides a Voice
- Teamwork
- Trust & Courage
- Feel like a fool sometimes
- Representing your organization in the community
- Staying positive when the chips are down



The connection between cheerleading and collaborative conservation



The Many Conservation Partnerships in the Southeast



The Challenges of Collaborating



The Challenges of Collaborating



SECAS Models of Collaborative Conservation

The Ge The importance and

The importance and need for landscapescale conservation is unchanged.





National Forum on Landscape Conservation

trategy

Pilic Ocea

When

November 6-8, 2017

<mark>ੋ Add to Calendar</mark>

Where

National Conservation Training Center 698 Conservation Way, Shepherdstown, WV 25443

Do We Need a New Model for

CUIT OF MONICO

This map outlines the 15 states that make up the Southeastern Association of Fish and Wildlife Agencies and within that the six Landscape Conservation Cooperatives that are developing the Southeastern Conservation Adaptation Strategy (SECAS). These LCCs and the partners that have built them, cover all or part of every SEAFWA state, and SEAFWA's directors asked them to work with the states and other partners who serve on those LCCs to develop this strategy. For more information, visit SECASSoutheast.org.

SECAS?

- What opportunities are there for cross-state collaboration of SWAP projects?
 - Multi-state grants (reduced match)
 - New SWAP GCN tool (USGS)





 Informal Networks of Collaboration?

NETWORK GOVERNANCE

1edia? Connecting people and places: the emerging role of network governance in cing apps? large landscape conservation

Lynn Scarlett14 and Matthew McKinney2

The most important land and water issues facing North America and the world-including land-use patterns, water management, biodiversity protection, and climate adaptation - require innovative governance arrangements. Most of these issues need to be addressed at several scales simultaneously, ranging from local to global. They require action at the scale of large landscapes given that the geographic scope of the issues often transcends the legal and geographic reach of existing jurisdictions and institutions. No single entity has the authority to address these types of cross-boundary issues, resulting in gaps in governance and a corresponding need to create formal and informal ways work more effectively across administrative boundaries, land ownerships, and political jurisdictions. In response to this challenge, numerous models of "network governance" are emerging. These approaches vary in terms of purpose, spatial scale, composition, organization, and complexity. This article explains what network governance is, why it is emerging, how it compares to other models of natural resource governance, and the different ways in which it develops and evolves.

Front Ecol Environ 2016; 14(3): 116-125, doi:10.1002/fox.1247



Moving to the Next Level in **Collaborative Conservation**

- Leadership
- Provides a Voice
- Teamwork
- Trust & Courage
- Feel like a fool sometimes
- Representing your organization in the community
- Staying positive when the chips are down



We're going to ales some and earlies leaders to keep SECAS-ative collaborative conservation

Expanding the Vision



ASSOCIATION of FISH & WILDLIFE AGENCIES

Mark Humpert (AFWA)

- What other regions are doing
- National SWAP meeting update
- Next steps for seamless SWAPS

SECAS 2018 and Beyond


Opportunities for Success

- Field Research
- Resources
- Partnerships
- Land Use Planning
- Public awareness and outreach

Understanding the Military Mission



Thank you!

Susan P Gibson Regional Environmental and Energy Office – Southern 404-562-5146 Susan.p.gibson2@usace.army.mil



SECAS 2018 and Beyond

Gordon Myers, Federal Agency rep. How SECAS meets the Conference theme "Creative Conservation Strategies for 21st Century Challenges"

Interactive Discussion



How can SECAS help identify, align and prioritize state & regional conservation efforts?

What additional resources and tools would be useful?

What barriers need to be overcome?

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• A

What additional resources and tools would be useful?

• A

What barriers need to be overcome?

• A



Worlds Shortest Survey

https://www.surveymonkey.com/r/SECAS17

Thanks for a great session!





Session Archives will be available soon

Give us a week to get them together!