

# Setting a Course for a Sustainable Landscape



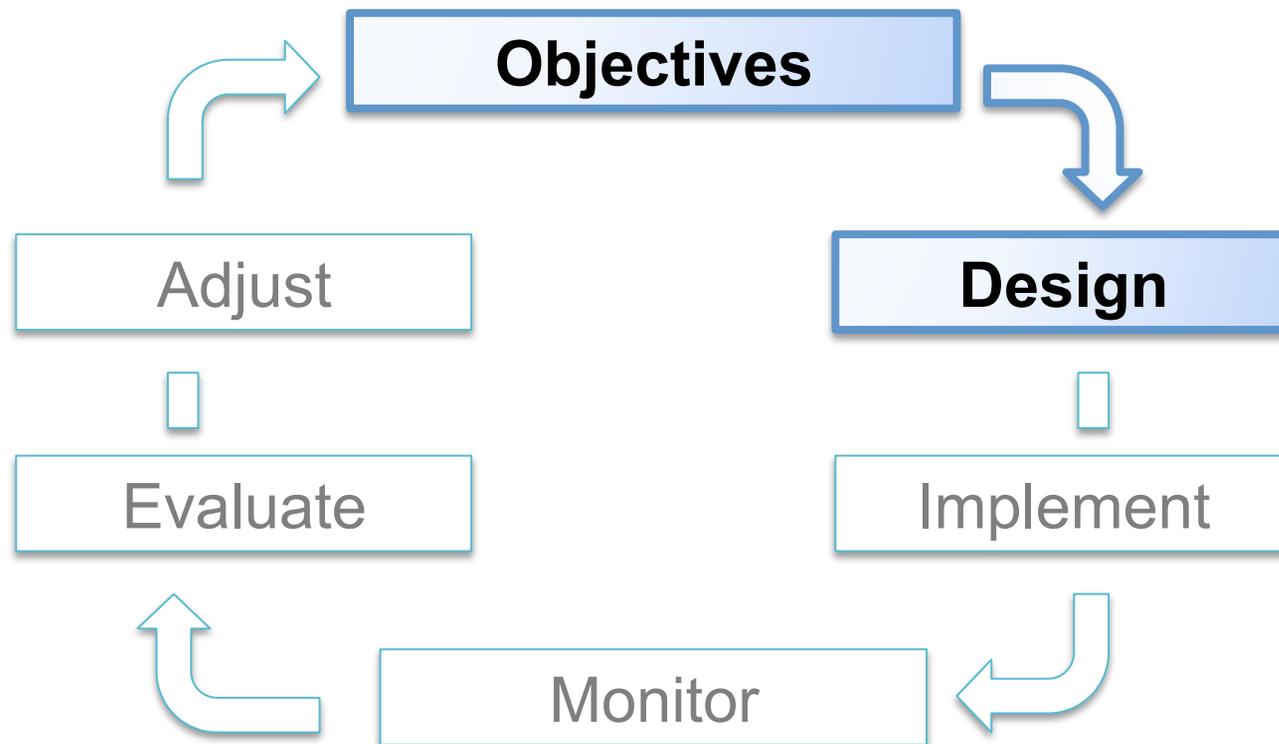
SOUTH ATLANTIC  
LANDSCAPE CONSERVATION COOPERATIVE

# What does the SALCC do?

**Mission:** Create a shared blueprint for landscape conservation actions that sustain natural and cultural resources



# Progress so far



# Indicators and Targets: Why do they matter?

- The blueprint will need to paint a compelling picture of the future of the South Atlantic region



# Indicators and Targets: Why do they matter?

- The blueprint will need to paint a compelling picture of the future of the South Atlantic region



- It needs to represent why we care about the ecosystems of the area





## Natural Resource Indicators Team

- Purpose: To develop the process for building off existing efforts to set indicators and measurable targets for SALCC natural resource goals



## Who's on the team?

Jon Ambrose

GA DNR / SWAP

Shannon Deaton

NC WRC / SWAP

John Stanton

FWS / ACJV

Linda Pearsall

NC DENR / Natural Heritage

Robert Boyles

SC DNR - Marine division

Pete Campbell

FWS / ENCSEVA

Dean Carpenter

NC DENR / APNEP

Maria Whitehead

TNC



## Who's on the team?

Mary Long

USFS

Tim Pinion

NPS

Wilson Laney

FWS/ Numerous partnerships

Roger Pugliese

SAFMC

Reggie Thackston

GA DNR / Private lands

Breck Carmichael

SC DNR

Rick Durbrow

EPA

Vic Engel

USGS / Everglades restoration

Jimmy Evans

GA DNR



## Two things to remember

1. Nothing is set in stone



## Two things to remember

1. Nothing is set in stone
2. Think broadly



# Draft process

Currently in development



## Overall process

### **1. Foundational documents (Complete by Nov 2012)**

- Synthesis of existing indicators and targets
- Definitions and framework for indicators
- Criteria to be considered for indicators

### **2. Based on foundational documents, get broad input on potential indicators and process for revising those indicators in the future (Nov-Feb 2012)**

- Selection team
- Revision team



## Overall process

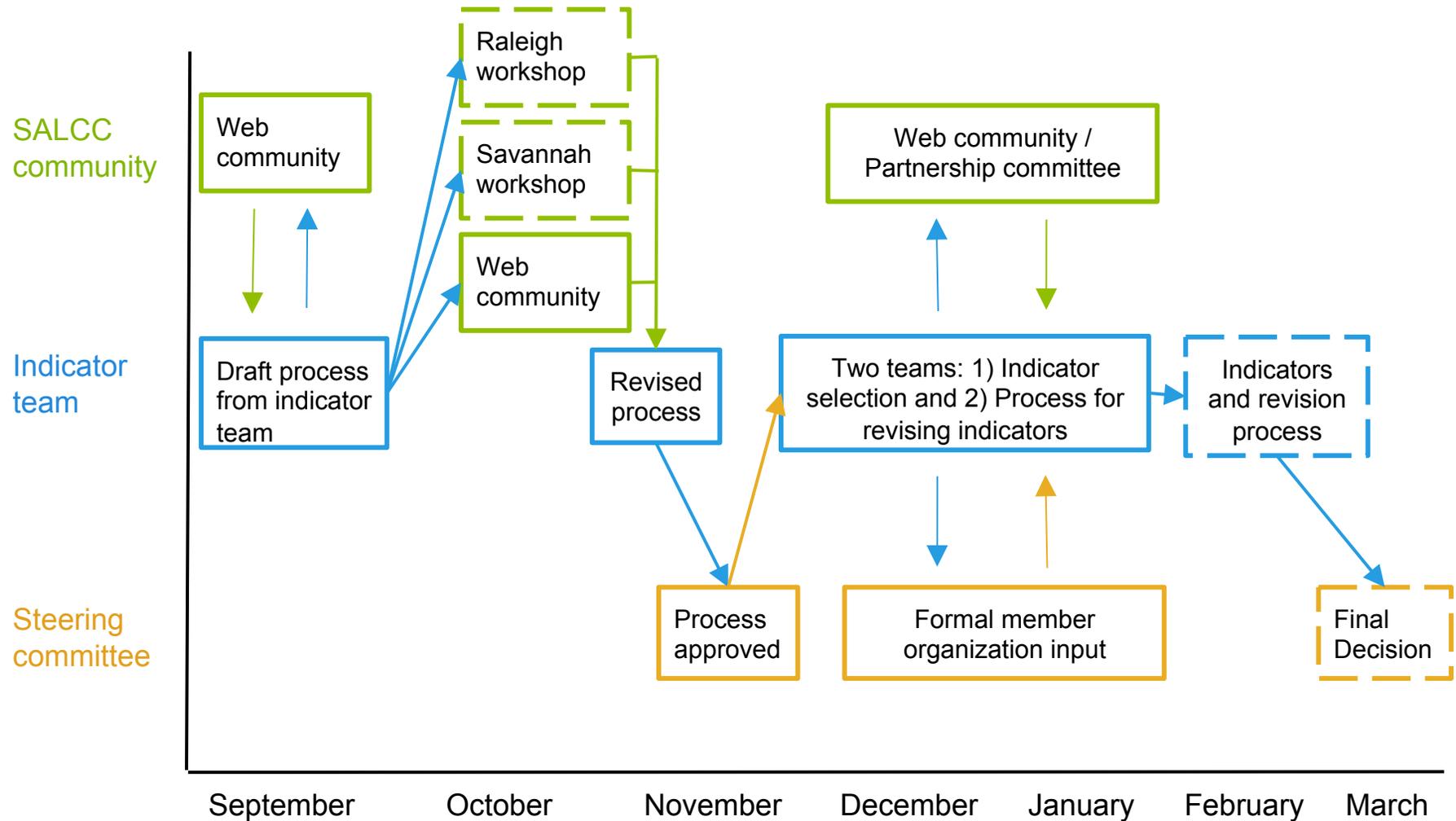
- 3. Synthesis of input into steering committee recommendation (Feb 2013)**
  - Summary of input from key audiences in Step 2
    - Larger conservation community (Web Community + targeted interviews)
    - Large partnerships (Partnership committee)
    - Organizational input from Steering Committee
    - Surrounding LCCs
  - In person meeting of Selection and Revision Team to take input from key audiences and develop final recommendations to the Steering Committee



## Overall process

- 4. Indicators/targets and process for revision approved by steering committee (March 2013)**
  - In person meeting to select indicators and targets and decide on process for revisions
  
- 5. Assessment of indicator function (Starting Spring 2013?)**

# Indicator process flowchart (Sept - Mar)





## About the Savannah workshop

- **Goal:** Review multiple processes for establishing conservation objectives while providing specific feedback on:
  - Draft processes from the South Atlantic LCC and the Fish and Wildlife Service
  - Use group expertise to test out and refine joint process in a specific habitat



## Foundational documents

<http://www.southatlanticlcc.org/page/indicators>

## Synthesis of existing plans

- Compile spreadsheet of existing indicators for each habitat type
- Build off existing work to minimize redundancy

The screenshot shows a Microsoft Excel spreadsheet with the following data:

Category	Indicator	Guild	Species	Scientific Name	Taxonomic Group	Citation	Notes
Biological	presence/absence		swallow-tailed kite	<i>Falco sparverius</i>	bird	I. SPWS Biologists Convention	
Biological	presence/absence		Rufous-spurred big-eared rat	<i>Corynorhinus rufesupus</i> (subspecies <i>microtis</i> in US)	mammal	I. SPWS Biologists Convention SALCC priority appendix	Wide distribution - 1 states WAP
Biological	presence/absence		southeastern myotis	<i>Myotis austroriparius</i>	mammal	SALCC priority appendix	Wide distribution - 1 states WAP
Biological	presence/absence		rusty blackbird	<i>Euphagus carolinus</i>	bird	I. SPWS Biologists Convention	
Biological	presence/absence		prothonotary warbler	<i>Protonotaria citrea</i>	bird	I. SPWS Biologists Convention	
Biological	presence/absence		wood duck	<i>Aix sponsa</i>	bird	I. SPWS Biologists Convention	
Biological	presence/absence		black bear populations	<i>americanus/floridanus</i>	mammal	SALCC priority appendix	Wide distribution - 1 states WAP
Biological	presence/absence		American woodcock	<i>Scolopax minor</i>	bird	LSIWS Biologists Convention	
Biological	presence/absence		cerulean warbler	<i>Dendroica cerulea</i>	bird	Atlantic Coast Joint Venture LSIWS Biologists Convention	
Biological	presence/absence		hooded warbler	<i>Wilsonia citrina</i>	bird	Atlantic Coast Joint Venture	
Biological	presence/absence		golden mouse	<i>Ochrotomys nuttalli</i>	mammal	LSIWS Biologists Convention	
Biological	presence/absence		Swainson's warbler	<i>Limnethlypis swainsonii</i>	bird	Atlantic Coast Joint Venture	
Biological	presence/absence		Wood Duck	<i>Aix sponsa</i>	bird	Atlantic Coast Joint Venture	
Biological	presence/absence		Black-throated Green Warbler	<i>Dendroica virens</i>	bird	Atlantic Coast Joint Venture	
Biological	presence/absence		Brown-headed Nuthatch	<i>Sitta pusilla</i>	bird	Atlantic Coast Joint Venture	
Biological	presence/absence		Prothonotary Warbler	<i>Protonotaria citrea</i>	bird	Atlantic Coast Joint Venture	
Biological	presence/absence		Northern Parula	<i>Parula americana</i>	bird	Atlantic Coast Joint Venture	



## Synthesis of existing plans: Sources

- **Current sources**

- SWAPs
- Atlantic Coast Joint Venture
- Albemarle-Pamlico National Estuary Program: 2012 Ecosystem Assessment
- Southeast Aquatic Resources Partnership: Southeast Aquatic Habitat Plan
- USFWS Southeast Biologist Conference
- NOAA Southeast and Caribbean Regional Team (SECART)
- NPS Inventory and Monitoring Program
- National Bobwhite Conservation Initiative 2.0
- Fishery Management Plans
- USFS Management Indicator Species
- America's Longleaf Conservation Plan

- **In the works**

- National Fish and Wildlife Foundation Longleaf Stewardship Fund
- ENC/SEVA Strategic Plan



## Definitions

### **Sources:**

- Bennett, James P. 2000. Ecological Indicators for the Nation: Committee to Evaluate Indicators for Monitoring Aquatic and Terrestrial Environments, National Research Council, National Academy Press, Washington, DC. 180 p., ISBN 0-309-06845-2.
- Doren, R.F., Trexler, J.C., Harwell, M., and Best, G.R., Editors, 2008. System-wide Indicators for Everglades Restoration 2008 Assessment. Unpublished Technical Report. 43pp.  
[http://www.sfrestore.org/scg/documents/2008\\_System-wideIndicatorsReport.pdf](http://www.sfrestore.org/scg/documents/2008_System-wideIndicatorsReport.pdf)
- South Atlantic LCC 2012 Science Assessment.  
<http://www.southatlanticlcc.org/page/science-assessment-1>



## Definitions

**Goal:** Desired conservation outcome that is difficult to measure

**Indicator:** A metric that is designed to inform us easily and quickly about the conditions of a system

**Target:** A measurable endpoint for an indicator

**Objective:** A goal with one or more indicators and targets for each indicator

## Complete objectives: Examples

- Maximize integrity of open pine systems (*goal*) - Brown-headed Nuthatch (*indicator*) - Increase coastal plain population by 50% (*target*)
- Maximize integrity of estuarine and marine systems (*goal*) - Sea grasses collectively (*indicator*) - Double the area of sea grasses (*target*)





## SALCC Framework

### Natural resources

- Integrity of ecological systems
- Viability of T&E species

### Cultural resources

- Sites
- Objects
- Biotic cultural resources

### Socioeconomic resources

- Recreation
- Human health
- Economy



## SALCC Framework

### Natural resources

- Beaches and dunes
- Estuarine
- Marine
- Forested wetlands (mineral soils)
- Forested wetlands (organic soils)
- Freshwater aquatic
- Freshwater marshes
- Managed wetlands
- Grassland – prairie – savannah
- Southern pine forests and woodlands
- Scrub-shrub
- Upland Hardwood
- Xeric and Maritime Scrub
- Landscapes (habitat aggregates)
- Waterscapes (habitat aggregates)



## Criteria for indicator selection

- Ability of the indicator to represent a variety of organisms / ecological attributes within that habitat type throughout a major portion of the LCC
- Amount of overlap with existing plans and processes
- Relevancy and scale to respond to big landscape threats in the region
- Ease of monitoring
- Are indicators sensitive enough to reflect landscape changes but sufficiently monitored to mask short term variations?
- How well will this indicator resonate with the American public?
- How well can this indicator link with an economic value?
- Level of management interest on public lands
- Level of management interest of private lands



## Criteria for target selection

- Amount of overlap with existing plans and processes
- Is the target achievable?
- Is there enough capacity to monitor the target?
- [In the future] Amount of overlap with cultural and socioeconomic goals



## Criteria for indicator selection

- **What can be a natural resource indicator?**
  - Any metric that meets the indicator definition in Section 2 (Definitions) and focuses on ecosystem integrity as defined in Section 2 (Framework) can be a potential natural resource indicator. This could include positive indicators (e.g., species, guilds, native habitat extent, etc.) or negative indicators (e.g., nonnative species, extent of habitat alteration, etc.)
- **Number of indicators per habitat**
  - To simplify the modeling and reporting on indicators, each habitat should have a maximum of eight total indicators (ideally less)

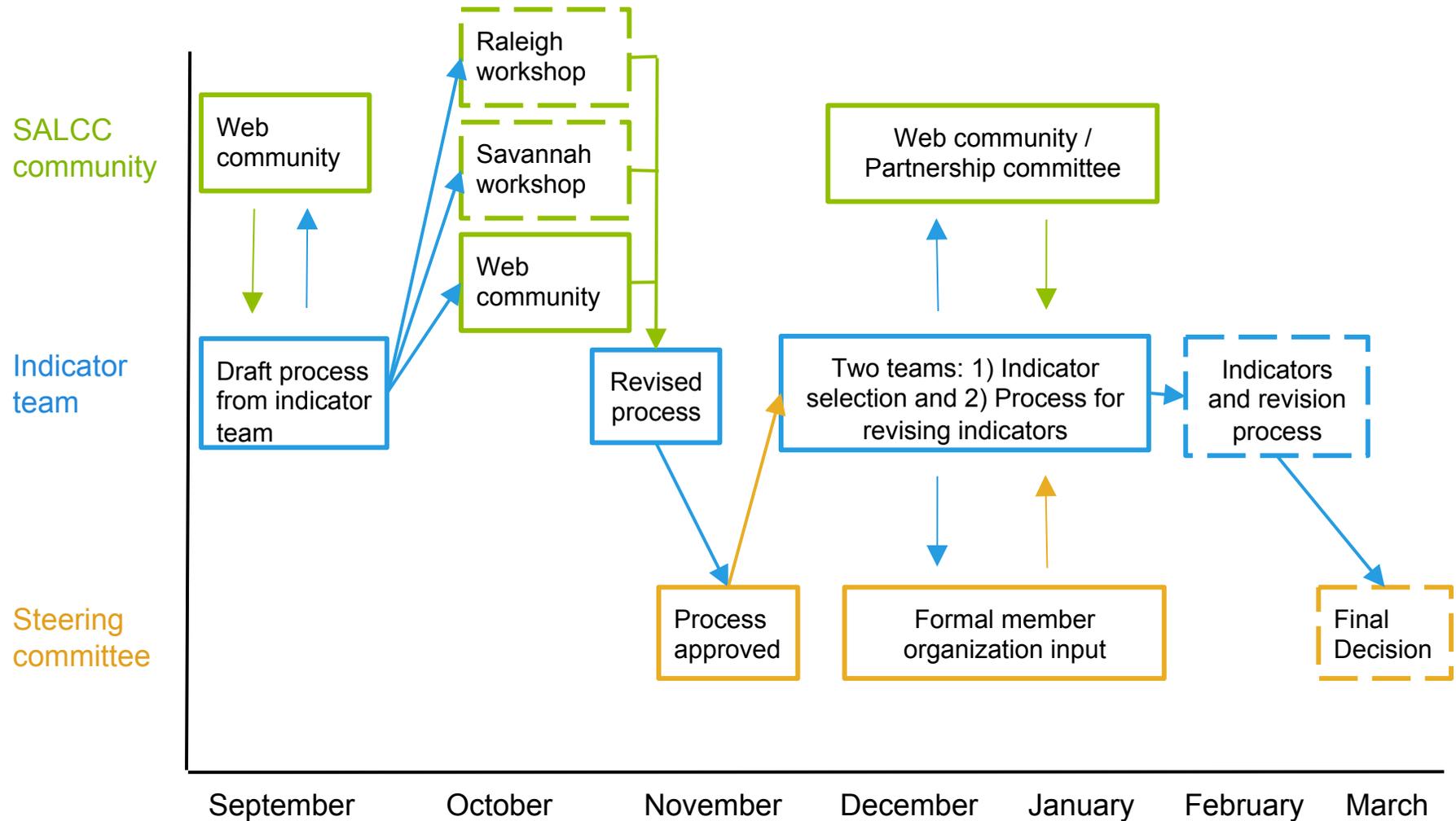


## Criteria for target selection

- **What can be a natural resource target?**

Any metric that meets the target definition in Section 2 (Definitions) and focuses on ecosystem integrity as defined in Section 2 (Framework) can be a potential natural resource target. Examples include measures related to distribution (e.g., double the area of seagrasses, 50% of longleaf with a wiregrass understory, 1 million acres of longleaf), policy adoption (100% of states with an instream flow policy), vital rates (e.g., increase recruitment of Atlantic Sturgeon by 25%), and population size (e.g., double the coastal plain population of brown headed nuthatch)

# Indicator process flowchart (Sept - Mar)





Thoughts, suggestions, or questions?