Setting a Course for a Sustainable Landscape

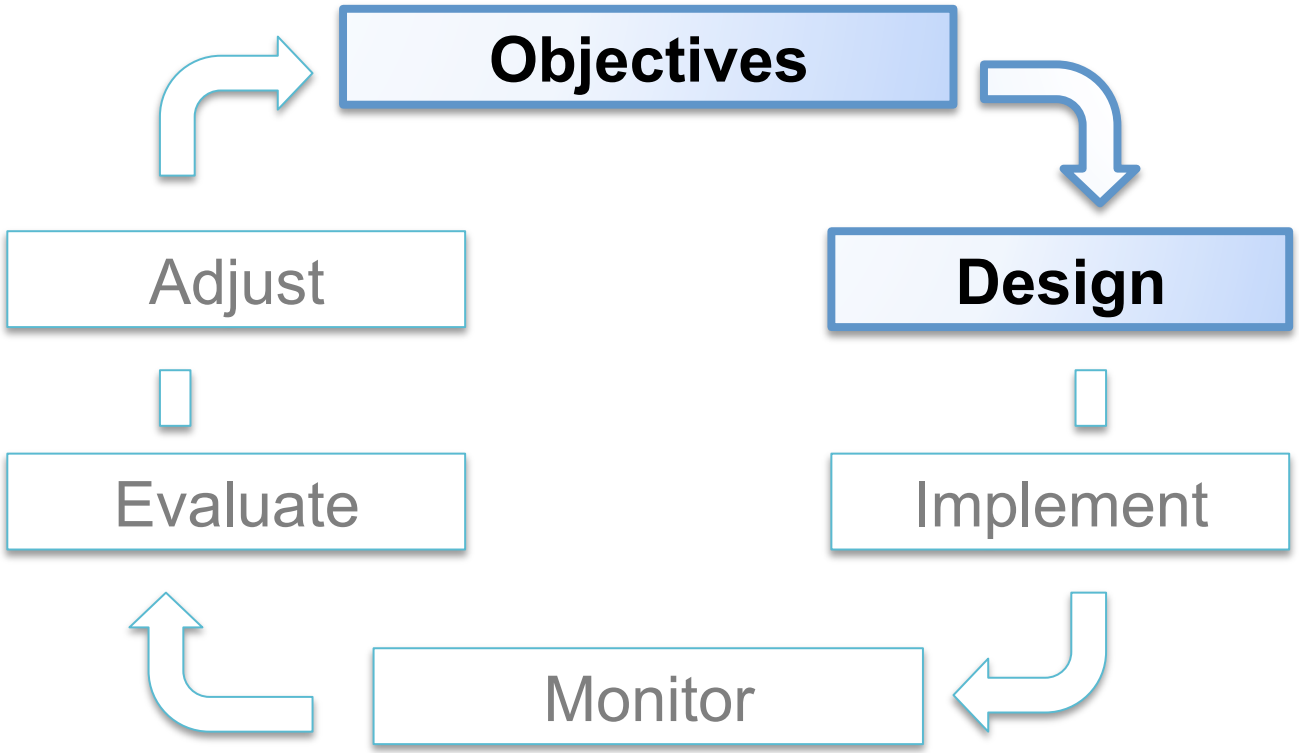
SOUTH ATLANTIC

LANDSCAPE CONSERVATION COOPERATIVE

What does the SALCC do?

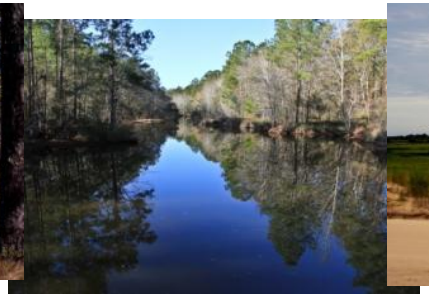
Mission: Create a shared blueprint for landscape conservation actions that sustain natural and cultural resources

Progress so far



Indicators and Targets: Why do they matter?

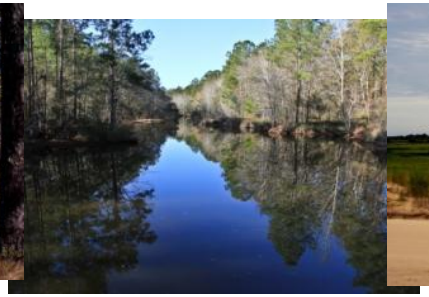
- The blueprint will need to paint a compelling picture of the future of the South Atlantic region



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

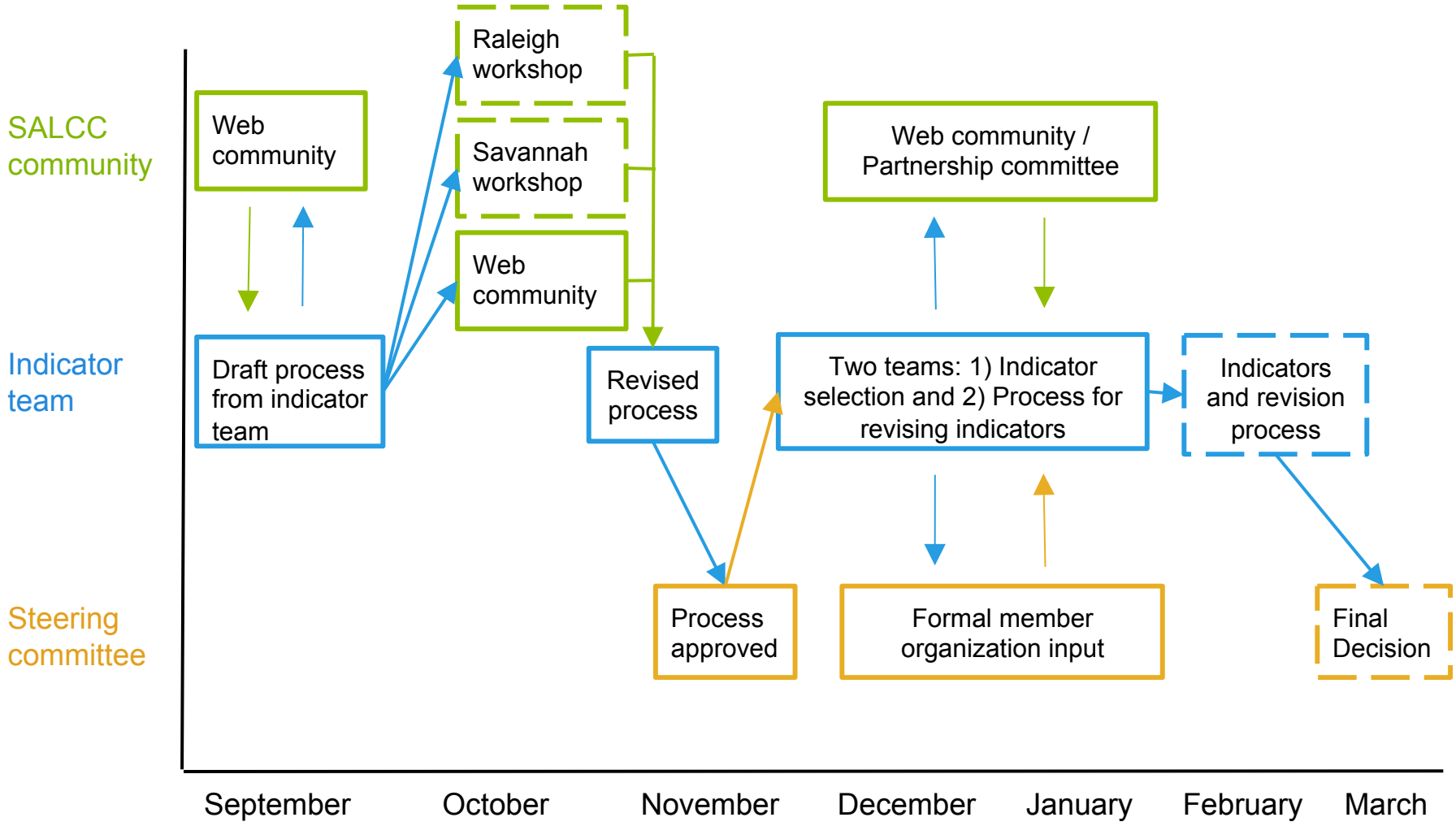
3. **Synthesis of input into steering committee recommendation (Feb 2013)**
   - Summary of input from key audiences in Step 2
     - Larger conservation community (Web Community + targeted interviews)
     - Large partnerships (Partnership committee)
     - Organizational input from Steering Committee
     - 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 Raleigh and Savannah workshops

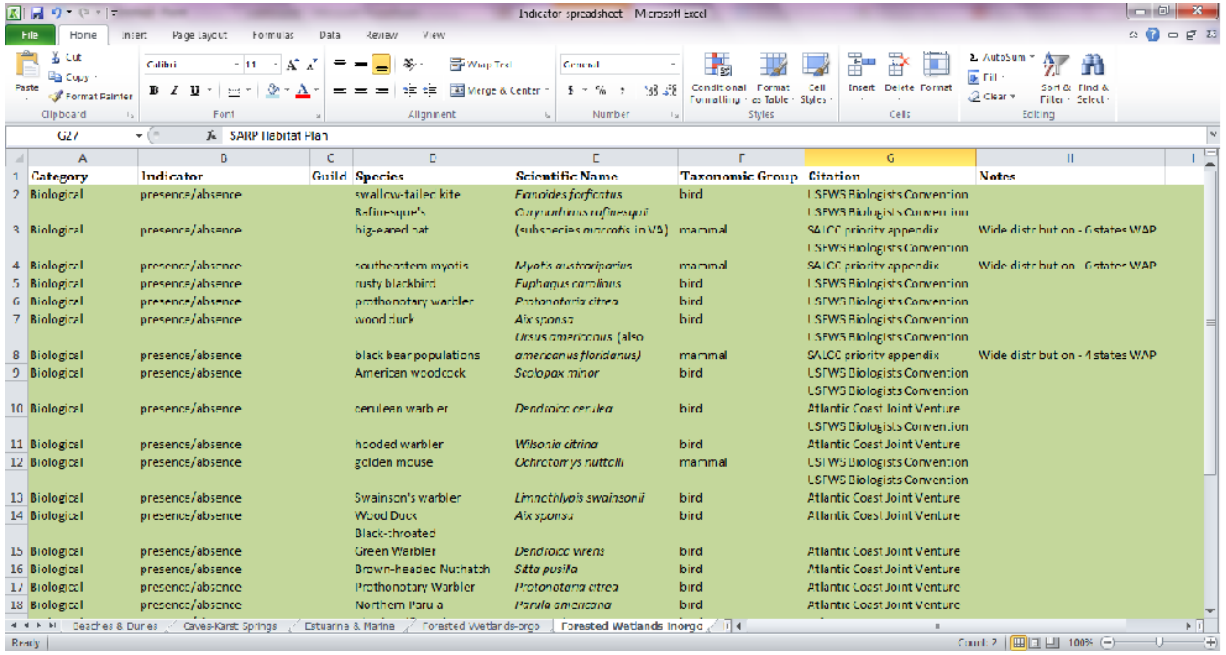
- **Goal:** Review multiple processes for establishing conservation objectives while providing specific feedback on:
  - Draft processes from the South Atlantic LCC and the Fish and Wildlife Service
  - Opportunities for establishing shared objectives through a single process

Foundational documents

Currently in development

Synthesis of existing plans

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



Category	Indicator	Guild	Species	Scientific Name	Taxonomic Group	Citation	Notes
Biological	presence/absence		swallow-tailed kite	*Elanoides forficatus*	bird	LSFWS Biologists Convention	
Biological	presence/absence		Rafinesque's big-eared bat	*Corynorhinus rafinesquii* (subspecies macrotis in VA)	mammal	SALCC priority appendix LSFWS Biologists Convention	Wide distr but on - 6 states WAP
Biological	presence/absence		southeastern myotis	*Myotis austroriparius*	mammal	SALCC priority appendix	Wide distr but on - 6 states WAP
Biological	presence/absence		rusty blackbird	*Euphagus carolinus*	bird	LSFWS Biologists Convention	
Biological	presence/absence		prothonotary warbler	*Protonotaria citrea*	bird	LSFWS Biologists Convention	
Biological	presence/absence		wood duck	*Aix sponsa*	bird	LSFWS Biologists Convention	
Biological	presence/absence		black bear populations	*Ursus americanus* (also *americanus floridanus)*	mammal	LSFWS Biologists Convention SALCC priority appendix	Wide distr but on - 4 states WAP
Biological	presence/absence		American woodcock	*Scolopax minor*	bird	LSFWS Biologists Convention	
Biological	presence/absence		cerulean warbler	*Dendroica cerulea*	bird	LSFWS Biologists Convention Atlantic Coast Joint Venture LSFWS Biologists Convention	
Biological	presence/absence		hooded warbler	*Wilsonia citrina*	bird	Atlantic Coast Joint Venture	
Biological	presence/absence		golden mouse	*Ochrotomys nuttalli*	mammal	LSFWS Biologists Convention LSFWS Biologists Convention	
Biological	presence/absence		Swainson's warbler	*Limnothlypis swainsonii*	bird	Atlantic Coast Joint Venture	
Biological	presence/absence		Wood Duck	*Aix sponsa*	bird	Atlantic Coast Joint Venture	
Biological	presence/absence		Black-throated Green Warbler	*Dendroica virens*	bird	Atlantic Coast Joint Venture	
Biological	presence/absence		Brown-headed Nuthatch	*Sitta pusilla*	bird	Atlantic Coast Joint Venture	
Biological	presence/absence		Prothonotary Warbler	*Protonotaria citrea*	bird	Atlantic Coast Joint Venture	
Biological	presence/absence		Northern Parula	*Parula americana*	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
- 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.)

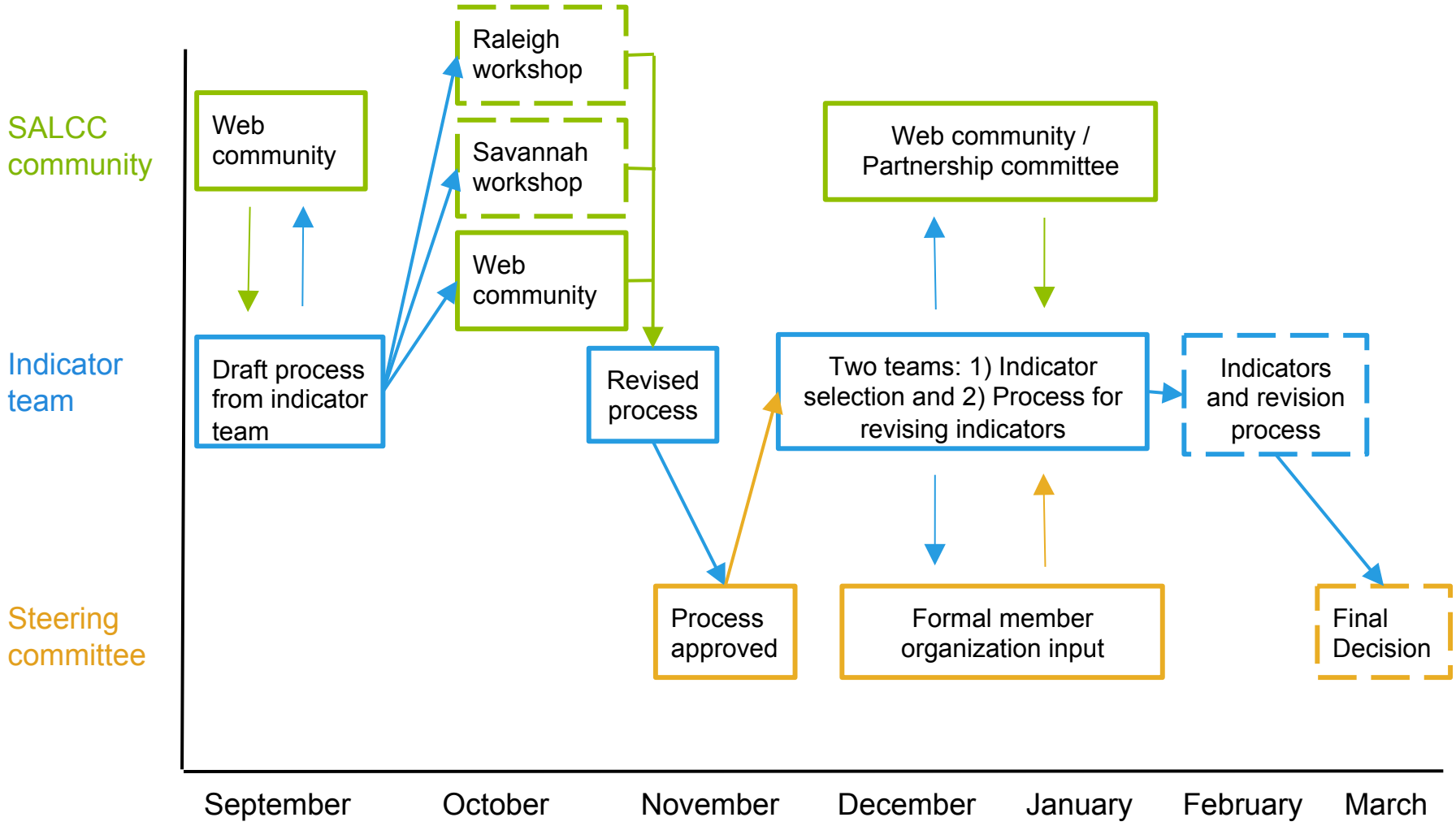
- **Number of indicators per habitat**
  - To simplify the modeling and reporting on indicators, each habitat should have a maximum of eight total indicators (ideally less)

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?