

Strategic Habitat Conservation

[FWS brand of landscape conservation]

A Response to Conservation Challenges of the 21st Century

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Science and Technical Advisory Committee
July 22, 2009



- Why are we here?
- The big picture
- Where we have been and where we are going
- Introduction to the functional elements
- Questions/comments

The NEP and APNEP Missions

- NEP: Protect and restore America's nationally significant estuaries.
- APNEP: To identify, restore and protect the significant resources of the Albemarle Pamlico estuarine system.
- FWS: Our mission is to work with others to conserve, protect and enhance fish, wildlife and plants and their habitats for the continuing benefit of the American people.
- SHC- A strategy for improving the FWS role and accelerating attainment of NEP and APNEP visions.

We Hope You Leave

- Energized and excited
- Challenged
- Understanding that we are all in this together
- Understanding that scale and context matter
- Willing to commit to partner with the Service in responding to the conservation challenges of the 21st century

- How do we need to work differently as partners to meet those challenges?

Challenges to Our Natural Resources are Mounting

- Habitat fragmentation
- Urbanization
- Invasive species (kudzu, ambrosia beetle)
- Disease
- Water resource issues (flows, drought)
- Alternative energy development

Climate Change

The Conservation Community is Responding to the Challenges

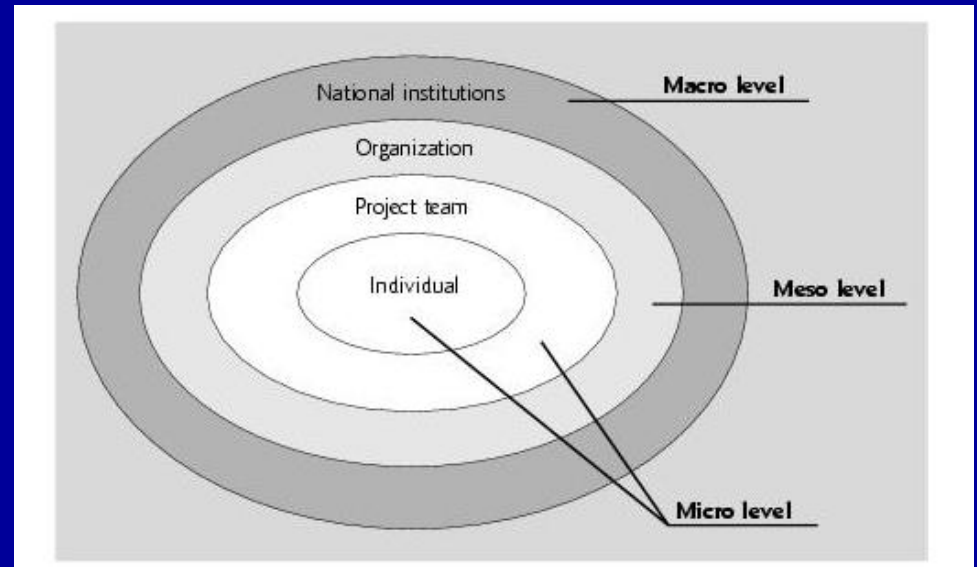
- Landscape level planning
- Cooperation
- Coordination
- Integration
- Use of best available information
- Adaptive approaches to conservation

SHC is a Response to 21st Century Conservation Challenges

- Organizationally
 - Regionally
 - Programmatically
 - Individually
- Move to a more integrated systems approach to conservation
- One Service for the Resource

Our Response is Bigger Than:

- An individual
 - A station
 - A program
 - A Region
 - » An agency



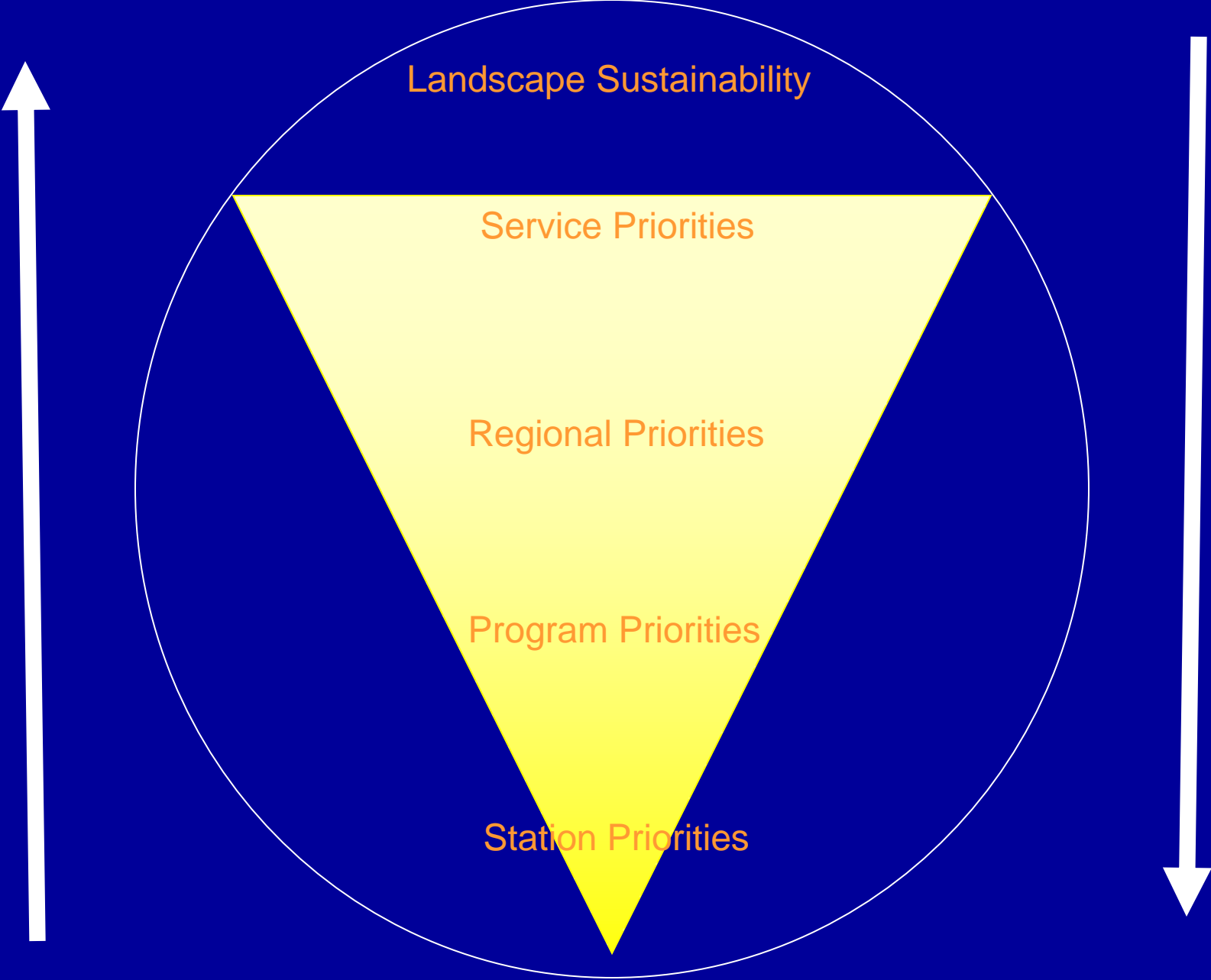
- We are part of a larger conservation community and as a Service must understand who we are and how we work

The Service's Unique Role

- Legal mandates that allow it to work across jurisdictional boundaries
- Shared responsibility with states
- Authority to conserve endangered species, interjurisdictional fish, and migratory birds
- An unequaled public land base (National Wildlife Refuge System)
- The need to catalyze a collective response by bringing the conservation community together



- What does a more integrated systems approach mean?
- How do we as an organization need to work differently to achieve this?
- What is your unique role in a more integrated interdependent system?



Landscape Sustainability

Service Priorities

Regional Priorities

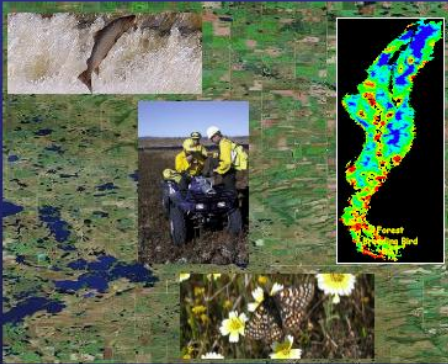
Program Priorities

Station Priorities

At the National Level

Strategic Habitat Conservation

*Final Report of the
National Ecological
Assessment Team*



July 2006

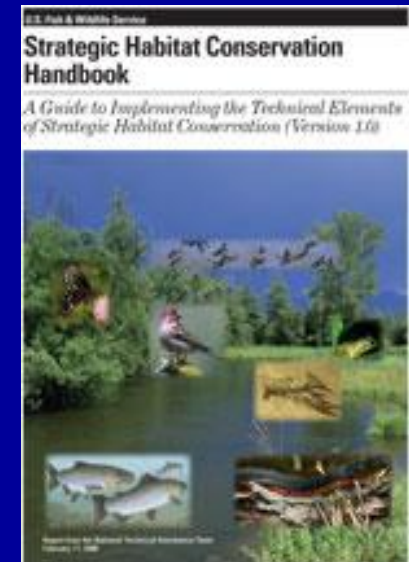
U.S. Fish & Wildlife Service
**Conservation in
Transition**
Leading Change in the 21st Century



- **July 2006** – FWS Directorate approves NEAT Report
- **October 2008** – Conservation in Transition: Leading Change in the 21st Century
- **December 2008** - Climate Change Strategic Plan and DRAFT 5-Year Action Plan

At the National Level

- Engagement with Directorate (FWS) and Executive Team (USGS)
- Joint FWS/USGS vision
- Communication strategy
- Facilitation of regional interactions
- R9 workshops
- Guidance
 - Technical Handbook
 - Addressing issues of priority/focal species



At the Regional Level

- **May 2007** - First Regional Implementation Team meeting
- **August 2007** - Briefing for Project Leaders
- **December 2008** – Delivery of “Road Map” to RDT
- **February 2009** – Guiding Coalition assumes responsibility for moving forward

U.S. Fish & Wildlife Service "One Service for the Resource"

Strategic Habitat Conservation

The Right Stuff in the Right Places for America's Fish and Wildlife

If you were given a tool that would help you make better decisions, achieve more conservation, build healthier fish and wildlife populations — using the same resources you have to do your work today, would you use it?

Consider: Over the past Century, the Service and our partners built a network of land and water dedicated to fish and wildlife conservation in the Mississippi Alluvial Valley. A quick look at a map of the Service's national wildlife refuges and the migratory bird flyways reveals the strategic thinking that took place. As the agency worked to fill in the holes, its managers were understandably opportunistic in their conservation activities particularly with private landowners, conservation groups and state fish and wildlife agencies. They continued to pursue conservation wherever possible — typically on small, disconnected tracts of land.

In 1996, the Service and our partners determined 15 million acres of land were available for restoration throughout the Mississippi valley. Biologists wanted to know where the highest value areas for waterfowl and high priority forest-breeding birds were located. How much habitat was needed and where?

Our biologists, working with the U.S. Geological Survey (U.S.G.S.) and other partners like The Nature Conservancy, the National Resources Conservation Service, and Ducks Unlimited, did just that in the Mississippi valley. While it didn't happen overnight, what they found was staggering. When they mapped the small tracts where conservation had been achieved opportunistically they realized they hit only three percent of the core habitat needed by waterfowl and forest brood birds. When they focused on core habitat and connected it using the same level of conservation resources (i.e., money, staff), they captured 24 percent of the core habitat needed for those species.

That's an 18-fold increase in conservation for those species; achieved by focusing on landscape-level outcomes. In addition to the fish and wildlife benefits it's a result any policymaker would find persuasive. It's what strategic habitat conservation is all about. These results represent the core of what motivates us each day to continue our pursuit of conservation with innovation and imagination.

The places of strategic habitat conservation
Building on past success and informed by

Strategic Habitat Conservation Process:

- Scientific Information
- Wildlife Accomplishments
- Progress toward Population Objectives
- Communication Tools
- Priority Species
- Population Objectives
- Synthesis of Science
- Wildlife
- Conservation Design
- Spatially-explicit Models
- Habitat Objectives
- Priority Areas
- Conservation Delivery
- Population Impacts
- Assumption-based Research

Photo: J. Perry

DRAFT FOR RDT USE

A Road Map for Implementing Strategic Habitat Conservation in the Southeast Region

Version 1.0

Prepared by: The Southeast Region Regional Advisory Team

Prepared for: The Southeast Region Regional Directorate Team

December 2008

Together, achieving the right conservation in the right places for the benefit of America's fish and wildlife.

Road Map

- Advancing Organizational Capacity
- Enhancing Understanding and Ownership
- Application (i.e., "Implementation")

Road Map

- Leadership
- Communication
- Vision
- Integration
- Adaptive and evolving
- Engagement and involvement
- Increase Capacity

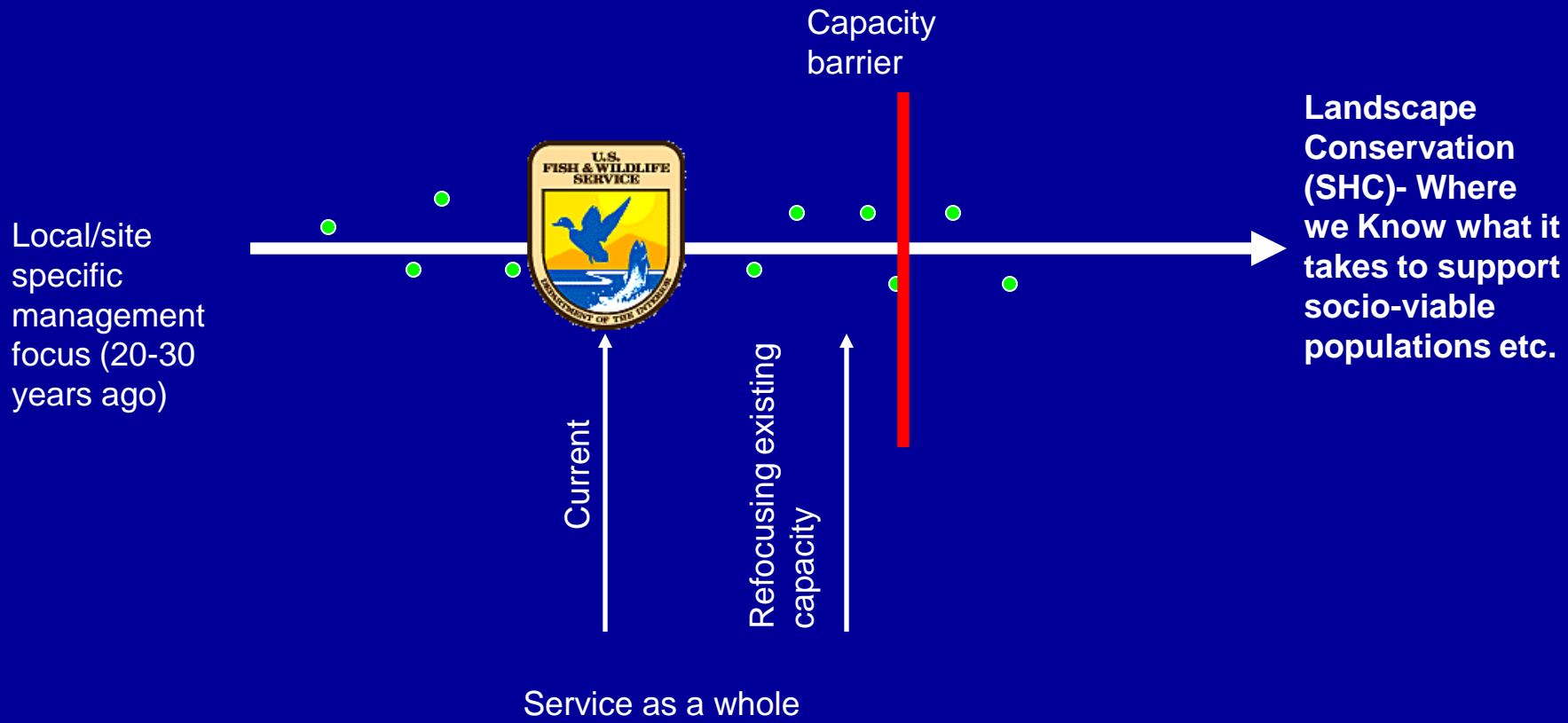
Guiding Coalition

- All Regional Deputy Assistant Regional Directors
- All Program Supervisors
- Field Office and program representatives

- This group of senior managers supervises the vast majority of our employees and therefore has the responsibility for leadership, credibility, communication, and budget authority for moving forward with an SHC approach to conservation

Guiding Coalition

- Will identify next steps to take as a Region to accomplish the goals, objectives, and strategies identified in the Road Map
- Will provide leadership to follow through on any SHC implementation action items that are identified during the upcoming Biologists Conference

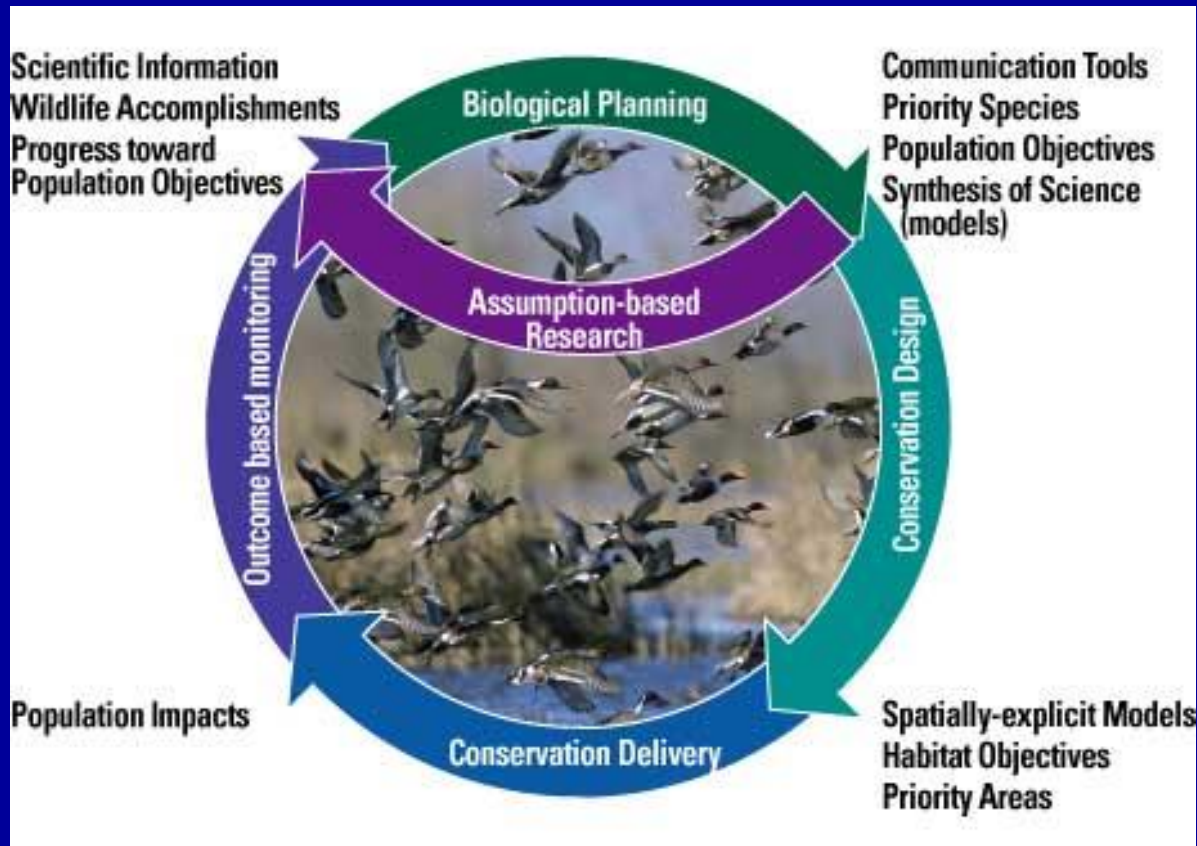


- What actions can APNEP take right now to help move the conservation community toward integrated landscape conservation?
 - Answer this now and at the end of the presentation.
 - Are your answers different?

Strategic Habitat Conservation

- An approach to conservation focused on providing landscapes capable of sustaining trust species populations at prescribed levels
- This approach is founded on a science-based, adaptive, iterative process of biological planning, conservation design, conservation delivery, and monitoring and research

The Basic SHC Framework is an Integrated, Iterative, Adaptive Approach



Strategic Habitat Conservation Framework

Functional Elements



- Biological Planning
- Conservation Design
- Conservation Delivery
- Decision-Based Monitoring
- Assumption-Driven Research

Planning – Increasingly a distinction is being drawn between three kinds or aspects of planning

Biological Planning

Conservation Design

Programmatic Planning

- Strategic Planning for the Partners for Fish and Wildlife Program
- Migratory Bird Program Strategic Plan
- Refuge CCP's

- What programmatic planning do you do?
- Where do programs get the information from biological planning and conservation design to feed into programmatic plans?
- How do the actions and activities outlined in programmatic plans feedback to biological planning and conservation design?

Biological Planning...



Use of transparent, replicable processes and procedures to derive conservation objectives expressed as **measurable biological outcomes**

- Identify priority species
- Select subset of priority species
- Determine population objectives
- Assess current status of populations
- Identify limiting factors
- Compile and apply models of habitat relationships

Some “Definitions”

- **Priority species** - species that APNEP/FWS have an obligation to protect (this includes the ecosystems on which they depend)
- **Focal species** – represent a larger guild of species. Factors limiting their populations are sensitive to landscape scale characteristics
- **Umbrella species** - those species that capture some to many of the requirements of other co-occurring species either because of broad landscape requirements or site specific management needs

Umbrella Species

- to help define broadly the habitat conditions and spatial requirements for a subset of species to get folks discussing the issues that we need to move forward on to improve our conservation of these and other co-occurring species

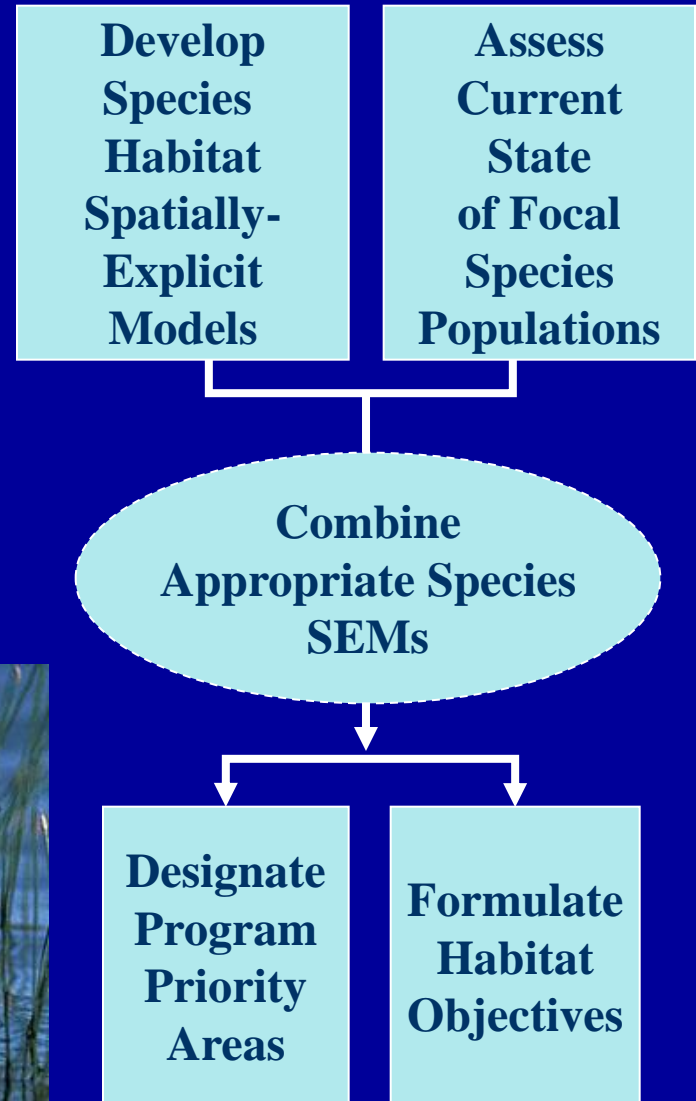
- There are not hard and fast boundaries between elements- It is not so important what we are calling things, but rather that they are getting done
- Link between conservation planning and design is the development and application of models- you will see models in both sections

A Note on Models

- We use them every day- we just may not be explicit about it
- A purposeful representation of what we think we know (metaphor, or simile)
- A tool to organize our thinking and explore uncertainties

Conservation Design... ↓

- Where and how much?
- The establishment of spatially explicit conservation priorities
- Development of spatially explicit conservation planning tools



Conservation Delivery...



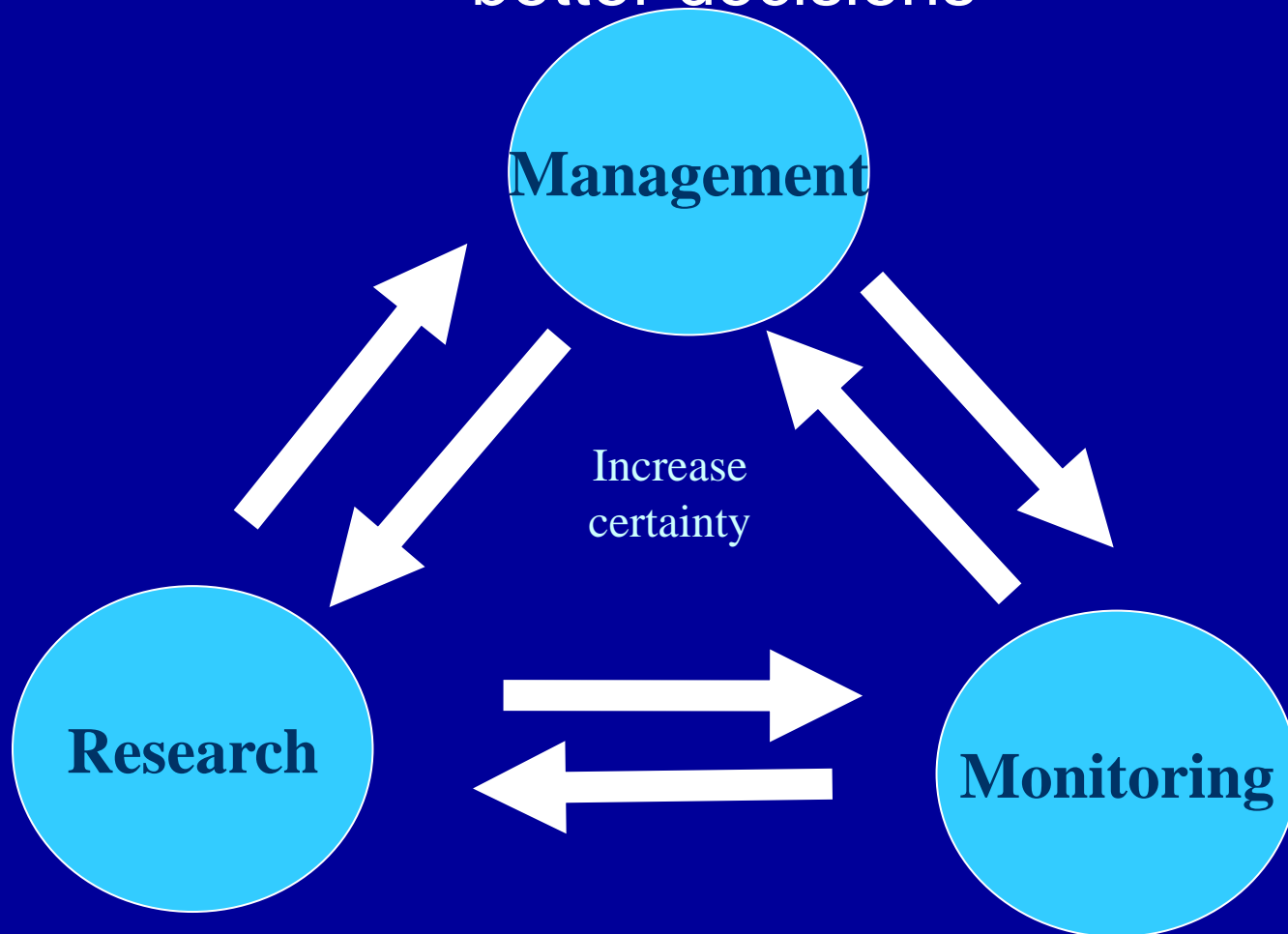
Implementation of on-the-ground actions based on information from biological planning and conservation design to efficiently affect populations

- Identifying location and “best” actions
- Targeted actions
 - Designed to achieve measurable biological outcomes
- Partnerships
 - Synergistic relationships to make actions more effective

- What linkages do you see between conservation delivery, biological planning and conservation design?
- What can be done to improve those linkages?

Assumption Driven Research and Decision Based Monitoring...

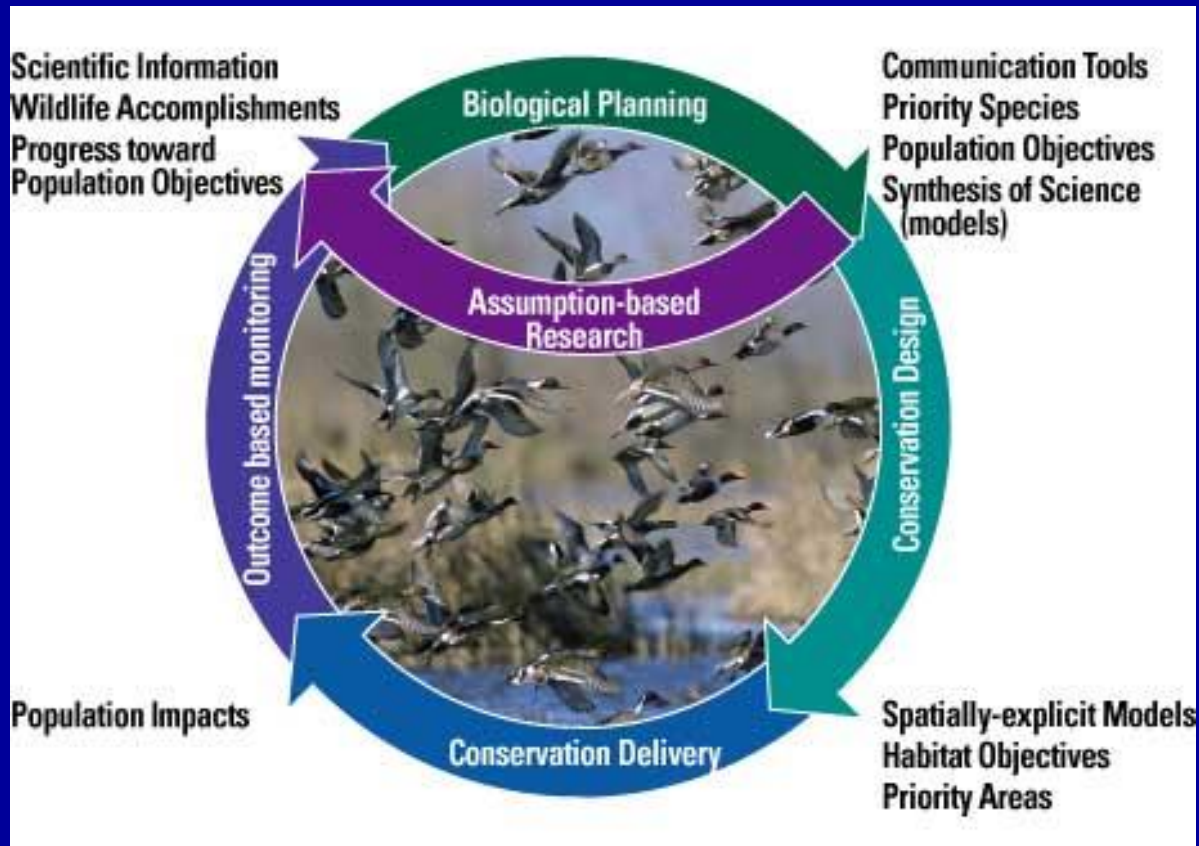
Targeted research and monitoring to help make
better decisions



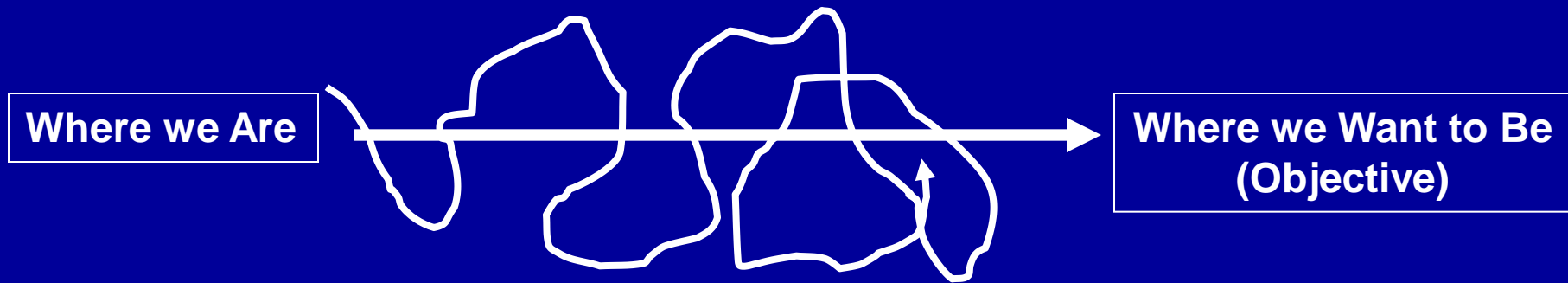
- What are the assumptions in your conservation actions?
- Could you increase your level of certainty through research or monitoring?
- How would that research or monitoring change your actions?



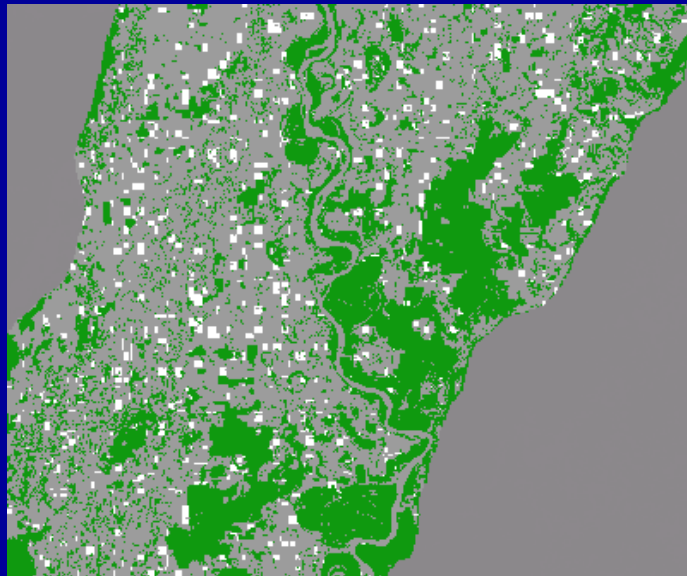
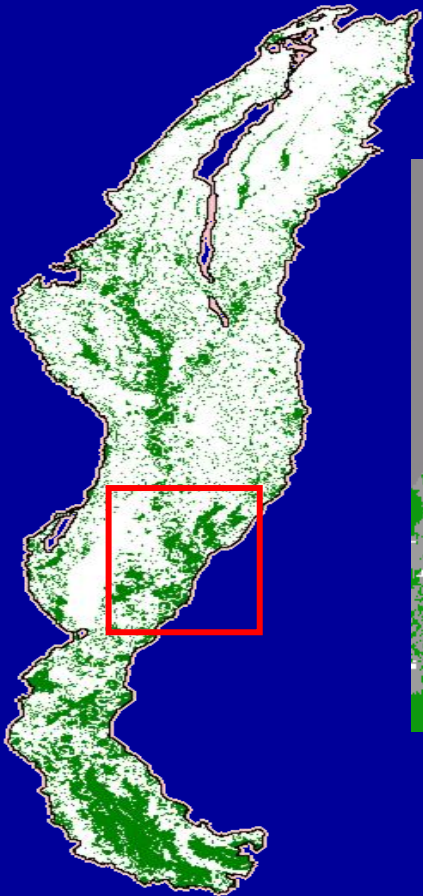
The Basic SHC Framework is an Integrated, Iterative, Adaptive Approach



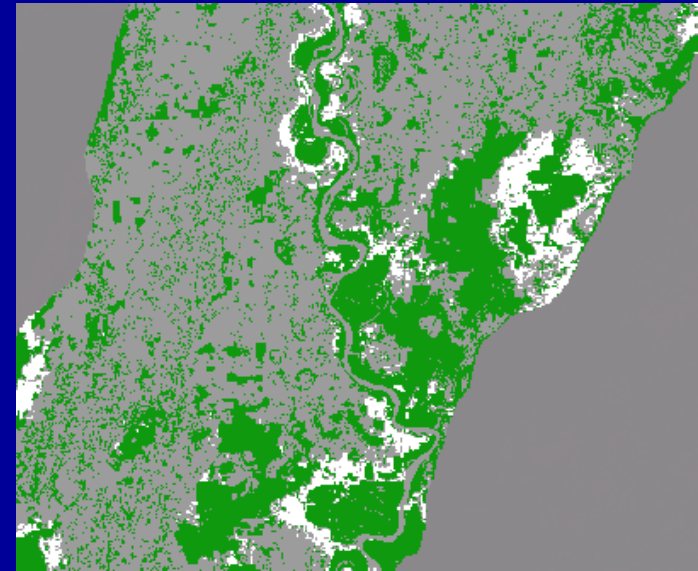
**SHC helps us to be more effective
and efficient...**



Get the biggest bang for our buck...



3% Forest Core



50% Forest Core

Puts our Actions in a Landscape Context and Relates Them to Population Sustainability

- How does:
 - issuing permit X for this project
 - acquisition of this property
 - reforesting this tract
 - this kind of wetland management on this wetland
 - urban sprawl
 - policy decision X
 - climate change

affect the conservation target?

- How does:
 - monitoring program X
 - research project X

inform management decisions relevant to the conservation target?

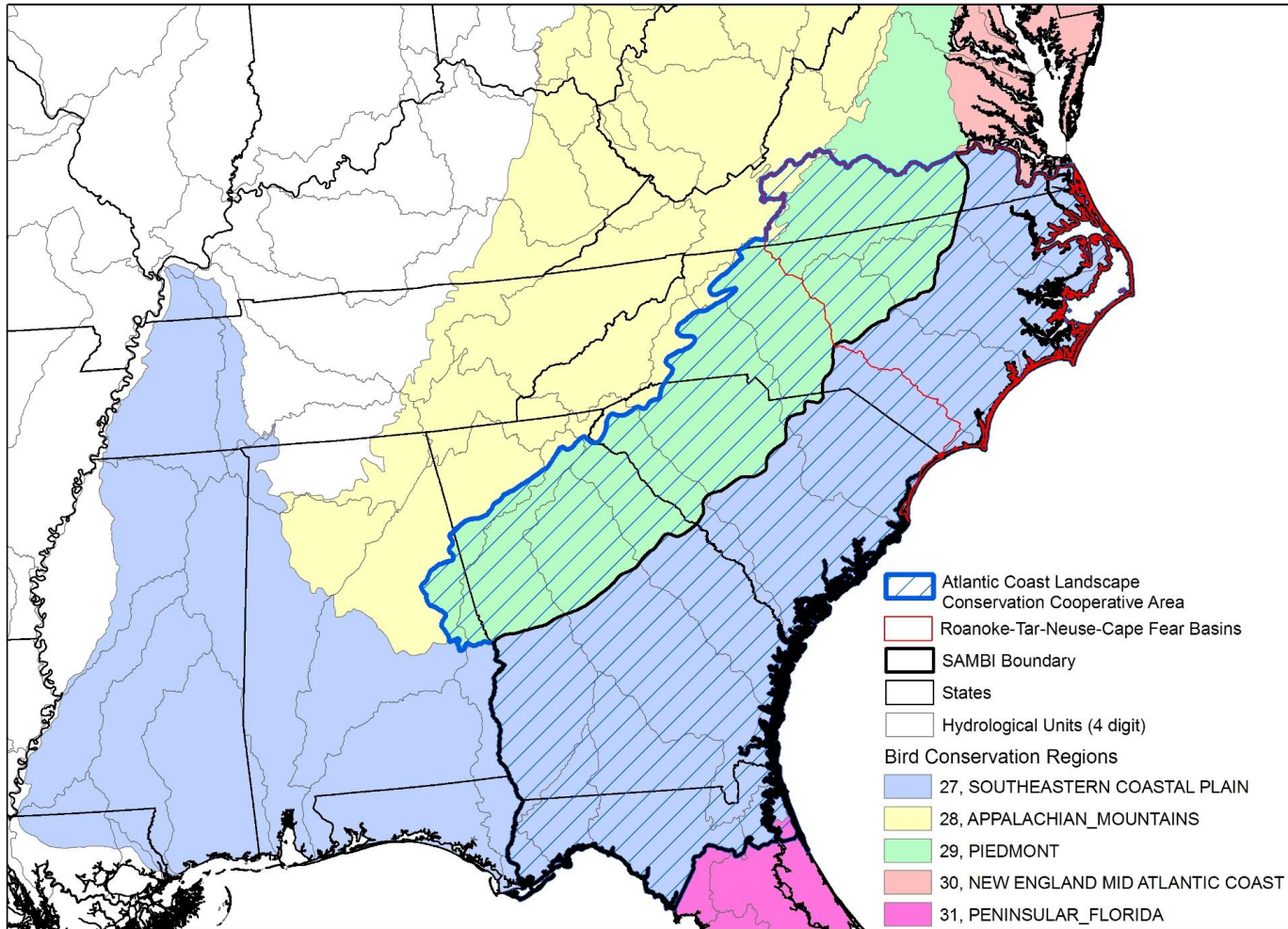


Key Questions

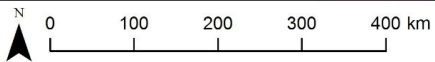
- Who will do what?
 - No single office (or the Service) will be expected to implement all of the functional elements
 - Capacity and capabilities exceed what we have in the Service today
- What changes will be necessary within FWS?
 - Technical
 - Institutional
 - Cultural
- How do we organize/obtain the resources necessary?
- What can you do?

FWS Current Actions

- Former Roanoke-Tar-Neuse-Cape Fear Ecosystem Team is now ENC/SEVA SHC Implementation Team
- Team prepared white paper for Regional Directorate (spring 2008), approved after revision (fall, 2008)
- New South Atlantic Landscape Conservation Cooperative (SALCC)-Pilot LCC for the Southeast Region (winter, 2009)
- Located in south Atlantic Coastal Plain and Piedmont to take advantage of existing synergies between FWS, USGS and partners



Atlantic Coast Landscape
 Conservation Cooperative Area



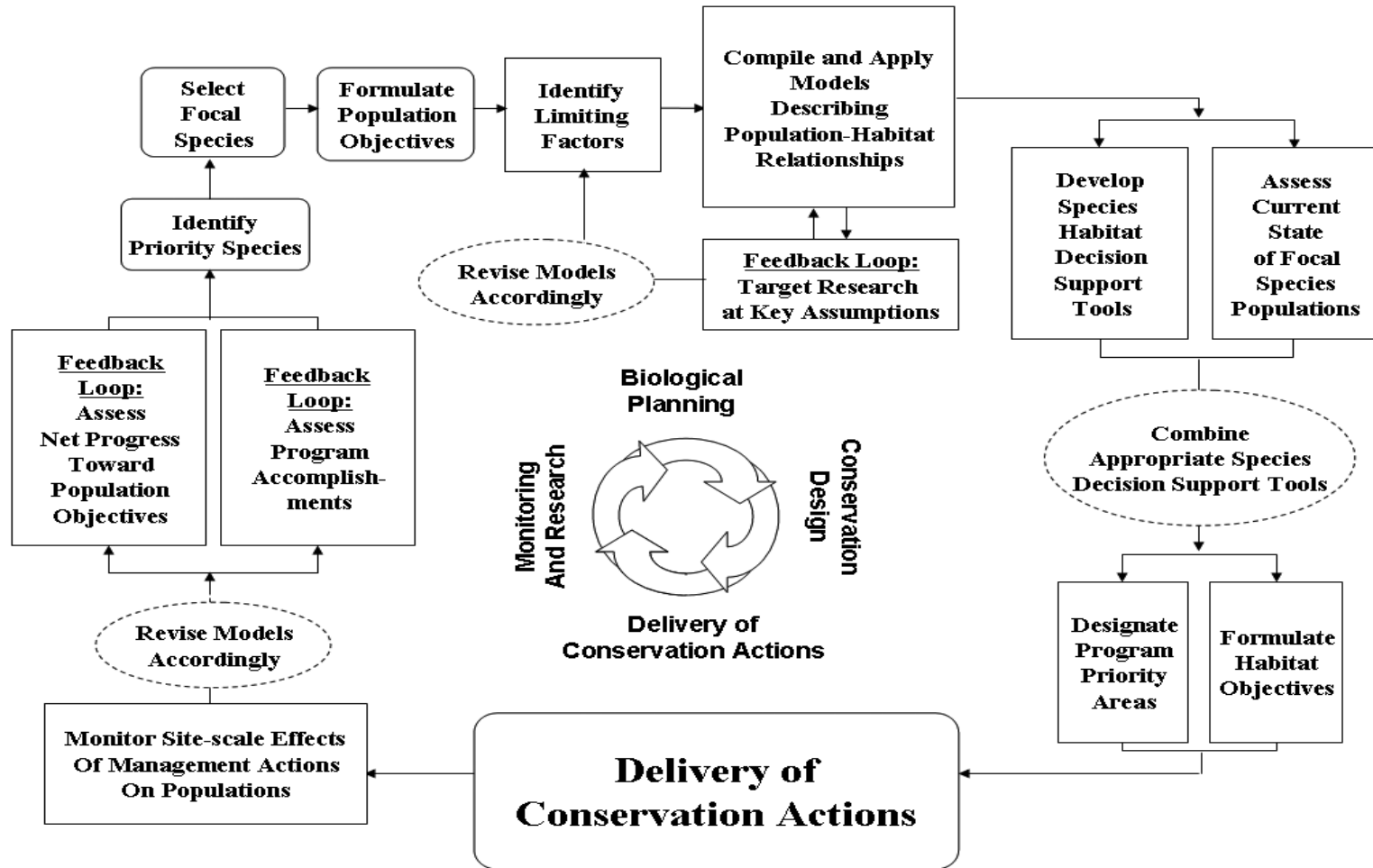
Atlantic Coast Joint Venture
 Laurel, MD 20708
 January 2009



What's Next??

- FWS ENC/SEVA Technical Committee to address FWS trust species and habitats
- Further discussions with desired partners (first meeting was July 20, in Raleigh)
- Possible Structured Decision Making workshop to develop consensus targets
- Hire staff positions (2009, 2010)

If we can enter SHC cycle at any point, we can move ahead now and learn as we go!



Things to Ponder

- Why are you doing what you do?
- What are the specific objectives?
- How does what you do relate to the functional elements?
- How does your project relate to landscape and population sustainability?
- Do you know where to go to get information?
- Do the folks you are going to know they should be providing you information?

