



Southeast Inventory & Monitoring Network

April 2014



Overview

- History and Need
- Program Guidance
- Implementation

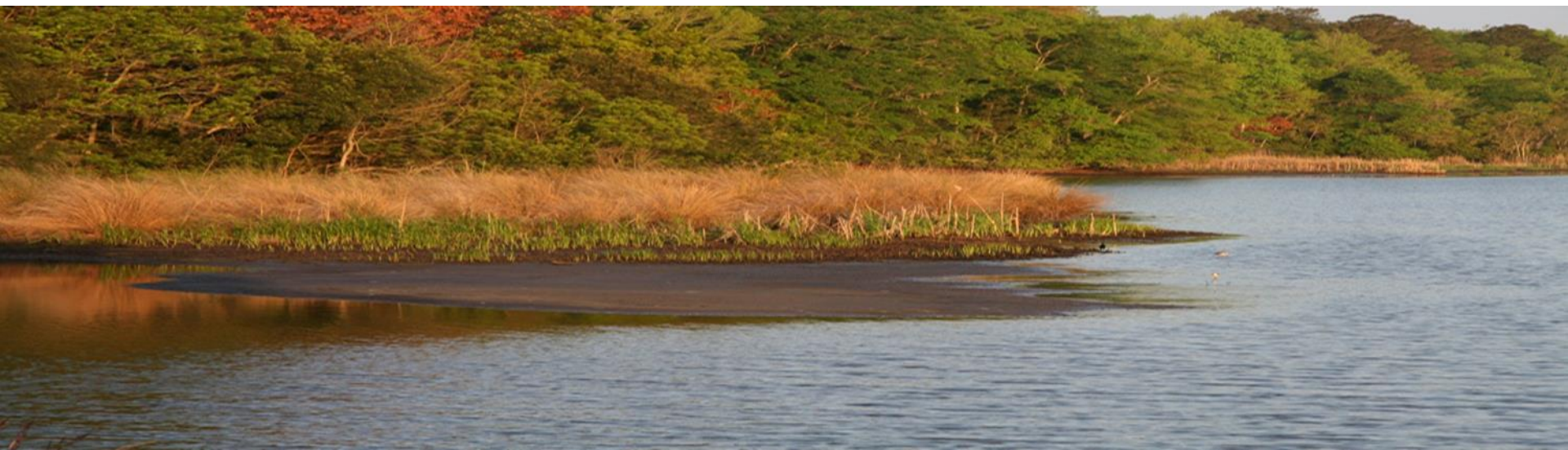




History – Need

National Wildlife Refuge System Improvement Act of 1997

- monitor the status and trends of fish, wildlife, and plants in each refuge.





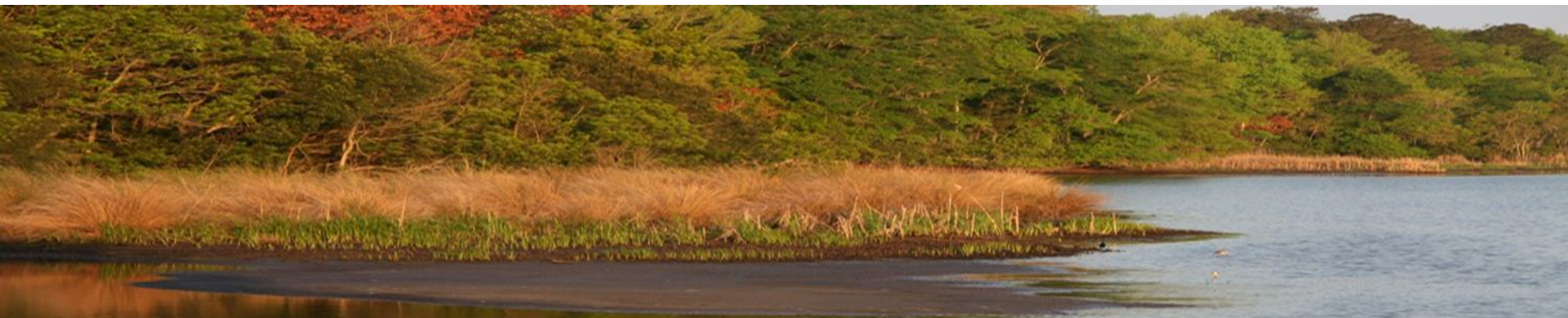
History – Need

Fulfilling the Promises (1999)

- WH8 Develop refuge inventory and monitoring plans for species
- WH9 Design or use existing databases to analyze and archive information
- WH10 Develop systematic habitat monitoring programs
- WH11 Ensure an interdisciplinary staff of specialists

Conserving the Future (2011)

- Recommendation 7: Institutionalize a purpose-driven nationally coordinated effort to inventory and monitor wildlife and habitats





I&M Program Guidance – Policy

- Series 701-709: Wildlife - General
- Part No 701: Population Management at Field Stations
- Chapter No 2: Inventory and Monitoring in the National Wildlife Refuge System
- Supersedes: 701 FW 2, FWM 221, 10/06/1995





I&M Program Guidance -- Vision

- A nationally coordinated program of inventory and monitoring on the NWRS
- Collaboration with other Service programs and State, Federal and private partners
- Document the status, assess the condition of, and detect changes in the Refuge's System's diverse fish, wildlife and plant communities, physical resources
- Support scientific-based conservation planning and management at multiple spatial scales.
- The information generated is scientifically credible, relevant, and valued
- Protocols, and standards provide the basis for consistent data collection and data management Refuge System-wide



I&M Program Guidance -- Goals

- Meet the Refuge System's legal mandate
- Advance fish and wildlife conservation at the refuge scale and broader landscape scales
- Implement monitoring to reduce uncertainty, provide early warning, and guide management actions
- Documents the contributions of the Refuge System within the context of the larger conservation estate
- Collaboration with other Service programs, agencies, and organizations.





Implementation -- National Direction

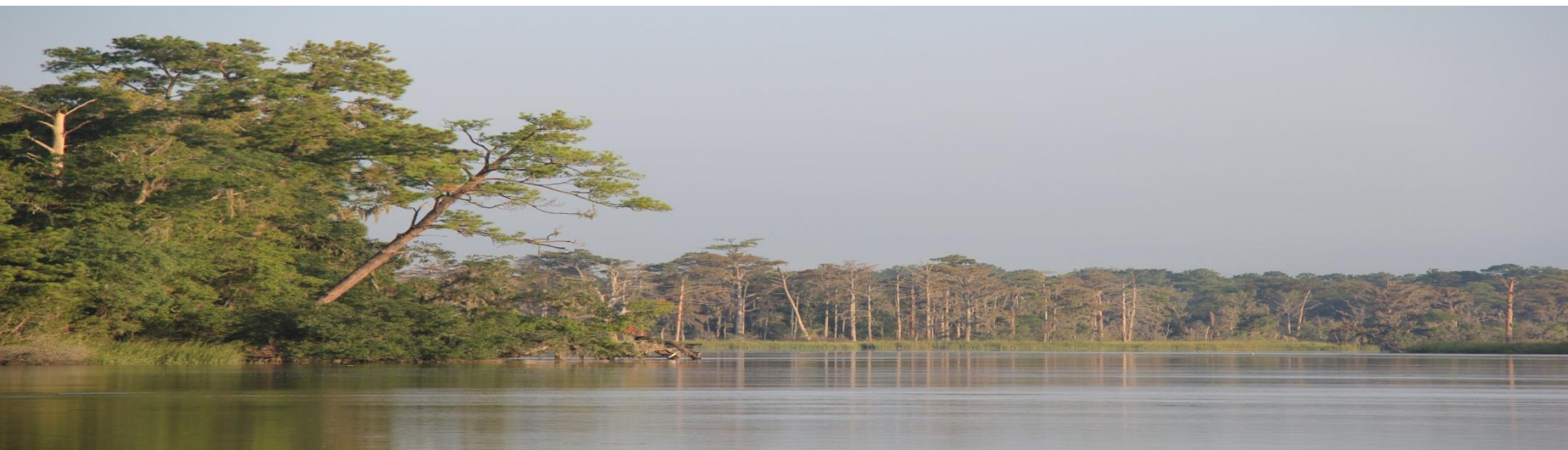
- 7-Year Plan: 2013-2020
 - Implement a nationally coordinated effort at multiple scales
 - 19 operational goals or focus areas
 - Objectives, time-frames and targets
- Annual work plan
 - Detailed actions





Implementation -- I&M Planning (IMPI)

- Goal: provide field stations with information and tools for planning and conducting defensible and management applicable inventories and monitoring
- Task: Inventory and monitoring plans developed and approved
- Task: Complete drafts of protocol frameworks





Implementation –Southeast Project (IMPI)

Amphibian community monitoring based on NPS SCEN

- Evaluate and provide recommendations to adapt this protocol for Southeast Region Refuges
- Pilot project to monitor the amphibian community at Roanoke River NWR was initiated in 2013
- Three techniques were used
- Preliminary results: 16 species of amphibians, two lizard species, six snake species and three turtle species





Implementation –Water Resources Inventory and Monitoring

- Goal: Provide innovative, relevant, and timely water resources information, assessments, and guidance to refuge staff, regional and national management, and partners to inform refuge management decisions and help meet refuge legal requirements.
- Task: implement water resource inventory and assessment application
 - Data management and assessments
- Task: develop a coordinated water quality and quantity monitoring system





Implementation –Southeast Project (WRIM)

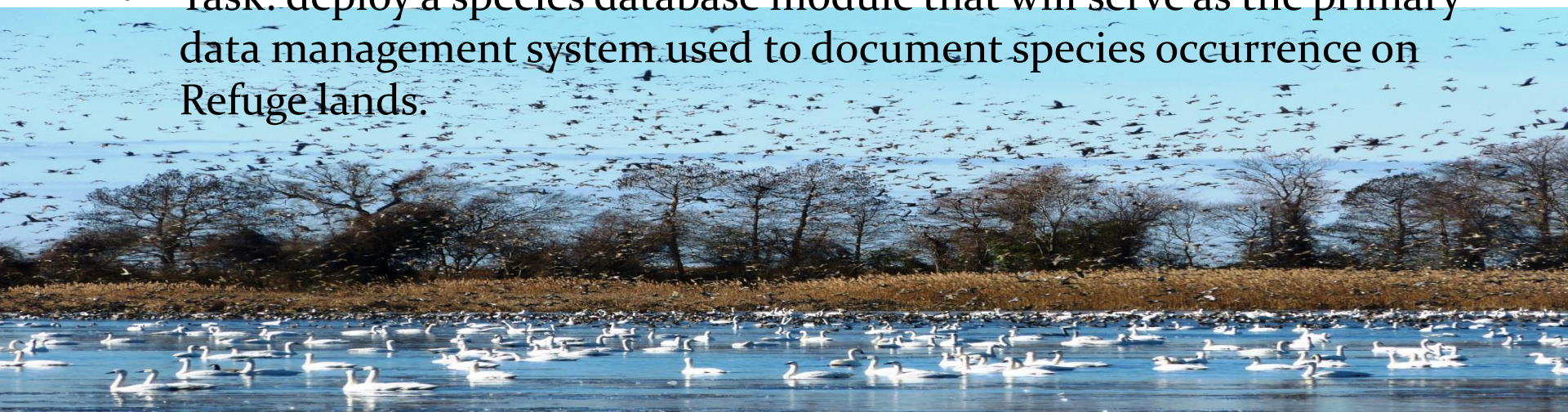
- Water Resource Inventory and Assessment
- Inventory standardized set of existing baseline information—including geospatial data
- Assessment identifies station-specific water resource needs and issues, and make recommendations for addressing
- Cape Romain NWR, Cahaba River NWR, Cache River NWR, White River NWR, Okefenokee NWR, Lower Suwannee NWR, Erwin National Fish Hatchery





Implementation –Systems Development (SM)

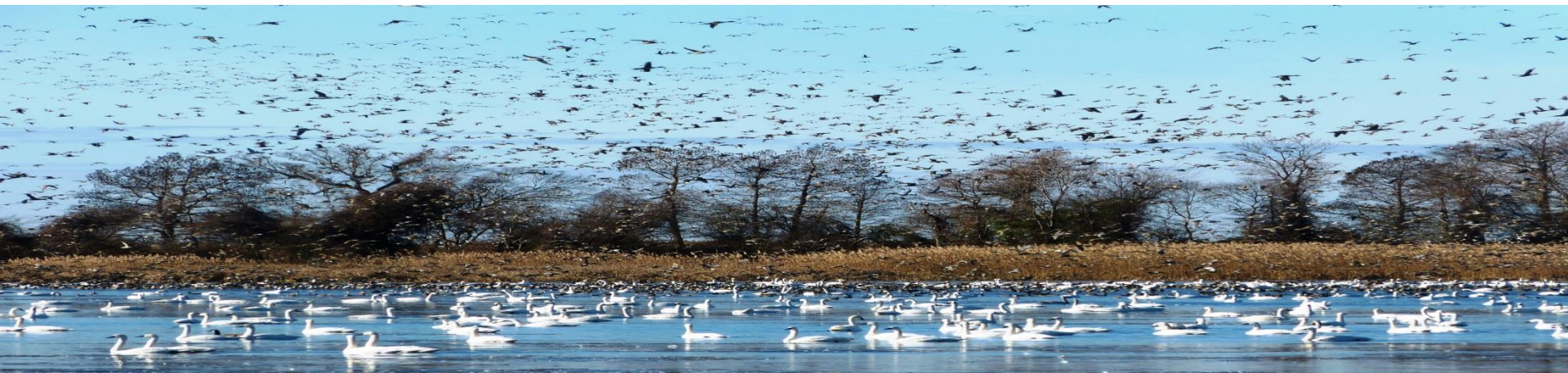
- Goal: Design, develop and maintain an integrated data management system that supports I&M efforts and promotes data sharing and collaboration with internal and external partners.
- Task: ServCat to serve as the primary repository for refuge protocols, management plans and reports
- Task: PRIMR to serve as the primary data management system used for describing historic, current and proposed I&M survey activities.
- Task: deploy a species database module that will serve as the primary data management system used to document species occurrence on Refuge lands.





Implementation – Data management (DM)

- Goal: Ensure that I&M database modules are efficiently utilized by all stations and they contain accurate, relevant, complete and current data that are accessible to others and inform Refuge System
- Task: ServCat protocols, reports uploaded and records routinely created
- Task: PRIMR current survey activities described and uploaded
- Task: Species occurrence information gathered
- Task: Provide guidance, new tools, and support for I&M modules





Implementation – Southeast Project (DM)

Service Catalog

- Library for work products, facilitate retrieval and information sharing
- Designed to integrate with PRIMR and WRIA
- ServCat meet the Open Data Initiative responsibilities for FWS
 - resource sensitivity in the ServCat Help Manual, Section 6.2.2 (page 65) -- Information Resource Sensitivity
- Regional strategy to ensure priority refuge legacy documents are archived for all R4 refuges by 2017





Implementation – Coastal Marine Systems (CMS)

- Goal: Collect baseline ecological and environmental data to evaluate potential impacts of climate change and other stressors on wildlife and their habitats within coastal and marine systems.
- Task: evaluate surface elevation table monitoring protocol





Implementation – Southeast Project (CMS)

Measuring Sea Level Rise Across the SALCC

- SET stations established on refuges to use data locally to answer critical questions and adjust management; SALCC will use data to run and validate landscape scale models
- Combine data with NPS and USGS data sets
- Inform LCC models and local climate change scenario planning





Implementation – Coastal Marine Systems (CMS)

- CMS 1.4 By the end of FY16, the I&M Team will identify coastal and remote island refuges requiring seawater abiotic (e.g., temperature, DO, pH, salinity, CO₂) and biotic (e.g., bacteria, nutrients, sediment) water quality monitoring to assess present and future impacts from climate change and anthropogenic sources (e.g., hazardous spills, energy developments) and natural disturbances (e.g., hurricanes) to coastal and marine resources. The team will also recommend an implementation strategy.
- CMS 1.5 By the end of FY17, work collaboratively with the Service Ocean and Marine National Coordinator and NOAA to identify existing protocols, or identify those that need to be developed, for monitoring the status and trends in health of coastal and marine habitats (e.g., saltmarshes, coral reef systems) on or near refuges.

