



# **Cedar Island National Wildlife Refuge**

## **CEDAR ISLAND NATIONAL WILDLIFE REFUGE**

**April 2001**

**Don Temple, Project Leader  
Bob Glennon, Resource Conservation Planner  
D.A. Brown, Habitat Protection Biologist**



# **Cedar Island National Wildlife Refuge**

## **ESTABLISHING AUTHORITIES. . .**

- **Migratory Bird Conservation Act of 1929 and Migratory Bird Hunting Stamp Act of 1934 provided the funds for establishment and acquisition in 1964**
- **Additional acreage (Bay Land tract) was acquired in 1990 under the authority of the Fish and Wildlife Act of 1956 to bring the total to 14,480 acres**



# Cedar Island National Wildlife Refuge

## Purposes . . .

**“... for use as an inviolate sanctuary, or any other management purpose, for migratory birds...”**

**“... for the development, advancement, management, conservation, and protection of fish and wildlife resources...”**

**“... for the benefit of the United States Fish and Wildlife Service, in performing its activities and services. Such acceptance may be subject to the terms of any restrictive or affirmative covenant, or condition of servitude...”**



# Cedar Island National Wildlife Refuge

## WILDLIFE SPECIES OF MANAGEMENT CONCERN

**Red-cockaded woodpecker**  
**Bachman's sparrow**  
**Brownheaded nuthatch**  
**Saltmarsh sharp-tailed sparrow**  
**Black rail**  
**Clapper rail**  
**Black skimmer**  
**Bald eagle**  
**American black duck**  
**Redhead**  
**Lesser scaup**  
**Black scoter**  
**Common loon**  
**Red-throated loon**  
**Forster's tern**





# Cedar Island National Wildlife Refuge

## HABITAT DIVERSITY . . .

### 14,480-ACRE ISLAND MARSH WITH ADJACENT LAND

- brackish marsh (11,000 acres)
- non-riverine wet hardwood swamp forest (1,485 acres)
- pine savanna and wet pine flatwoods (1,200 acres)
- small depression pocosin (300 acres)
- salt shrub (150 acres)
- coastal fringe sandhills (130 acres)
- bay forest (100 acres)
- administrative areas (75 acres)
- dune grass/beach (40 acres)



**Adjacent estuaries have been identified as the highest quality fisheries in North Carolina**



# Cedar Island National Wildlife Refuge

## HABITAT MANAGEMENT . . .

- Occasional prescribed burning by the staff from Mattamuskeet NWR and other eastern North Carolina refuges
- Sporadic law enforcement from Mattamuskeet NWR
- Management limited due to absence of on-site staff





# Cedar Island National Wildlife Refuge

## PEOPLE . . .

- Fishing
- Waterfowl Hunting
- Wildlife Observation
- Interpretation
- Education
- Photography

and . . .

**non-wildlife dependent activities like hiking, walking, horseback riding and boating**





# **Cedar Island National Wildlife Refuge**

## **RESOURCE PROTECTION**

**(including land acquisition and monitoring of permitted activities) . . .**

- Administration areas totalling 75 acres**
- Highway and utility easements**
- Communication Towers**
- Boat Docks (Navy and private)**
- Natural Heritage Areas**
- Wilderness Study Areas**



# **Cedar Island National Wildlife Refuge**

## **LAW ENFORCEMENT ISSUES . . .**

- Dumping**
- Poaching**
- Baiting**
- Trespass**
- Tree Cutting**
- Unauthorized Vehicle Traffic**
- Waterfowl Blinds**

**. . . a poster child for unfunded baselines**



# **Cedar Island National Wildlife Refuge**

## **CEDAR ISLAND NWR COMPREHENSIVE CONSERVATION PLAN**



# **Cedar Island National Wildlife Refuge**

## **The Process to date . . .**

- Preplanning** **March 2000**
- Biological Reviews** **April 2000**
- Public Involvement  
(see handouts)** **September 2000**
- Issues, Vision, Goals** **October 2000**
- Public Use Review** **December 2000**
- Alternative/Objective  
Development** **February 2001**

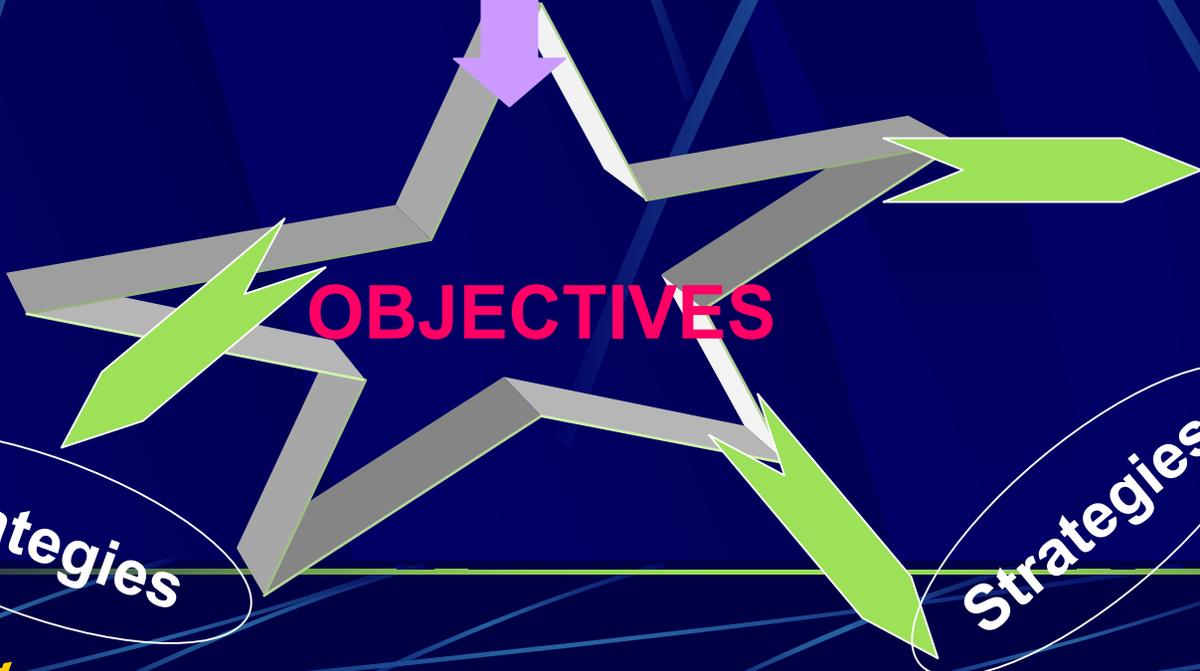
**REFUGE VISION**



**GOALS**



**OBJECTIVES**



**Strategies**

**Projects**

**Strategies**

**Projects**

**Strategies**

**Projects**

# **Vision Statement**

**Cedar Island National Wildlife Refuge will play a vital role in the National Wildlife Refuge System. The Refuge will establish a presence in the local community by increasing staffing levels, partnering with agencies, developing research groups, and organizing friends groups and volunteers. The Refuge will conserve and manage fish and wildlife species such as endangered and threatened species, species of management concern, and interjurisdictional fish. Refuge staff and volunteers will protect the diverse habitats typical of the mid-Atlantic coastal ecosystem within which the Refuge is situated, including coastal fringe forest, estuarine marsh, longleaf pine savanna and fish nursery areas. Through active enhancement and management, the Refuge will provide high quality, mid-Atlantic, coastal habitat for migratory birds and other priority species. Visitors to the Refuge will be encouraged to participate in compatible wildlife-dependent recreational activities. Working with others, Cedar Island National Wildlife Refuge staff, partners, and volunteers will manage and protect the Refuge's natural resources to preserve a legacy of fish, wildlife and plants for people to experience and appreciate in the years to come.**

# **GOALS**

**Wildlife, Fish and Plant Populations:** Preserve, protect and maintain healthy and viable populations of migratory birds, wildlife, fish and plants, including federal and state endangered and threatened species.

**Habitat:** Protect and enhance diverse habitats, rare plant assemblages and nursery areas associated with the Pamlico-Core Sounds and the mid-Atlantic coastal ecosystem.

**Public Use:** Develop programs and facilities to provide adequate public use opportunities including fishing, hunting, environmental education, interpretation, wildlife photography and observation.

**Administration:** Provide adequate staff and funding to accomplish the refuge goals and objectives.

**Resource Protection:** Protect refuge resources by limiting impacts of human development and activity on and around CINWR.

# **WILDLIFE ISSUES**

- **Bring back the black bear populations**
- **Consider aerial dispersal of native seed sources for wildlife**
- **Consider planting strips to enhance some wildlife areas**
- **Cooperate with adjacent landowners conducting similar wildlife studies**
- **Increase songbird protection**
- **Increase staff to meet public use demand and wildlife and habitat needs**
- **Increase wildlife (especially waterfowl and birdwatching areas)**
- **Use locals to help collect wildlife monitoring data**

# **HABITAT ISSUES**

- **Acquire higher land adjacent to refuge if possible to create impoundments for waterfowl**
- **Bomb the marshes to create potholes for waterfowl habitat**
- **Burn only during northeasters**
- **Create impoundments on ridges where the woods are now**
- **Enhanced puddle duck habitat**
- **Increase staff to meet public use demand and wildlife and habitat needs**
- **Increase studies of other habitat types besides salt marsh**
- **Increased prescribed burns**
- **Manage land for maximum wildlife benefit**
- **More attention and study of marsh potholes for waterfowl habitat**
- **Plant vegetation for waterfowl (ducks and geese)**
- **Protect migratory pathways and habitat**
- **Protect shorebird nesting areas**
- **Use of heavy equipment in the marsh**
- **Use of herbicide to create nesting habitat (flattening needlerush)**
- **Use other organizations to help develop and install wood duck or other species nesting boxes**

# **PUBLIC USE ISSUES**

- **Add nature trails**
- **Add observation trails and towers**
- **Add parking areas**
- **Add photography decks**
- **Add signage, especially on NC12**
- **Create boardwalks and boat ramps**
- **Create bridal paths and horse trails**
- **Create environmental organizations to help manage trails**
- **Develop the headquarters into a visitor center that could also house interns or volunteers**
- **Dredge boat ramps for larger boat access**
- **Hunting access on east side of the refuge**
- **Increase education and outreach on and off refuge**
- **Increase outreach**
- **Increase staff to meet public use demand and wildlife and habitat needs**
- **Increased public use**
- **Increase wildlife (especially waterfowl and birdwatching areas)**
- **Open some of the access roads to vehicle traffic**
- **Put "Pedestrian Access" signs on gated roads**
- **Put an environmental education specialist on Cedar Island to help school kids**
- **Start a volunteer program**
- **Use local expertise in environmental education**
- **Use more volunteers on the refuge**

## **RESOURCE PROTECTION ISSUES**

- **Acquire higher land adjacent to refuge if possible to create impoundments for waterfowl**
- **Enforce electric company right of way maintenance**
- **Enforce poaching activities**
- **Enforce the military aircraft ceilings**
- **Expand the refuge north and west of the ferry landing**
- **Give the community a 50-foot easement around the community center**
- **Increase songbird protection**
- **Inform citizens well in advance of all land deals**
- **Investigation of original promises made to create additional habitats**
- **Make sure the commitment from Congress is 100% so the resources don't go away**
- **Mark and widen access channels**
- **More emphasis on permitting and cooperation with federal and state agencies**
- **No land trading to developers**
- **Preserve old refuge buildings for barn swallow habitat**
- **Protect cultural resources (shell middens, cemeteries)**
- **Stabilize the shoreline area at the end of Lola Road**
- **Use law enforcement judiciously**

## **ADMINISTRATION ISSUES**

- **Develop the headquarters into a visitor center that could also house interns or volunteers**
- **Move the headquarters to a more visible location**
- **Staff the refuge**
- **Start a volunteer program; use more volunteers on the refuge**
- **Upgrade Cedar Island to the same level as other refuges**



# **Cedar Island National Wildlife Refuge**

## **5 Alternatives Derived from Public Involvement and Strategic Planning . . .**

- 1. Existing conditions (status quo)**
- 2. Minimum program increases**
- 3. Moderate program increases**
- 4. Optimum program increases, increased waterfowl management, and increased black bear habitat through moderate refuge expansion**
- 5. Optimum program increases, increased waterfowl management, increased black bear habitat and landscape level conservation through significant refuge expansion**



# **Cedar Island National Wildlife Refuge**

## **ALTERNATIVE 1: No Action – Status Quo (1 Temporary Employee)**

- no change from past management programs**
- no changes to current uses**
- no permanent staff presence**
- no noticeable refuge program improvements**
- limited public input in decision-making**

# Cedar Island National Wildlife Refuge

- Roads
- Existing Refuge Ownership
- Military Lands
- Cape Lookout National Seashore
- Shoreline

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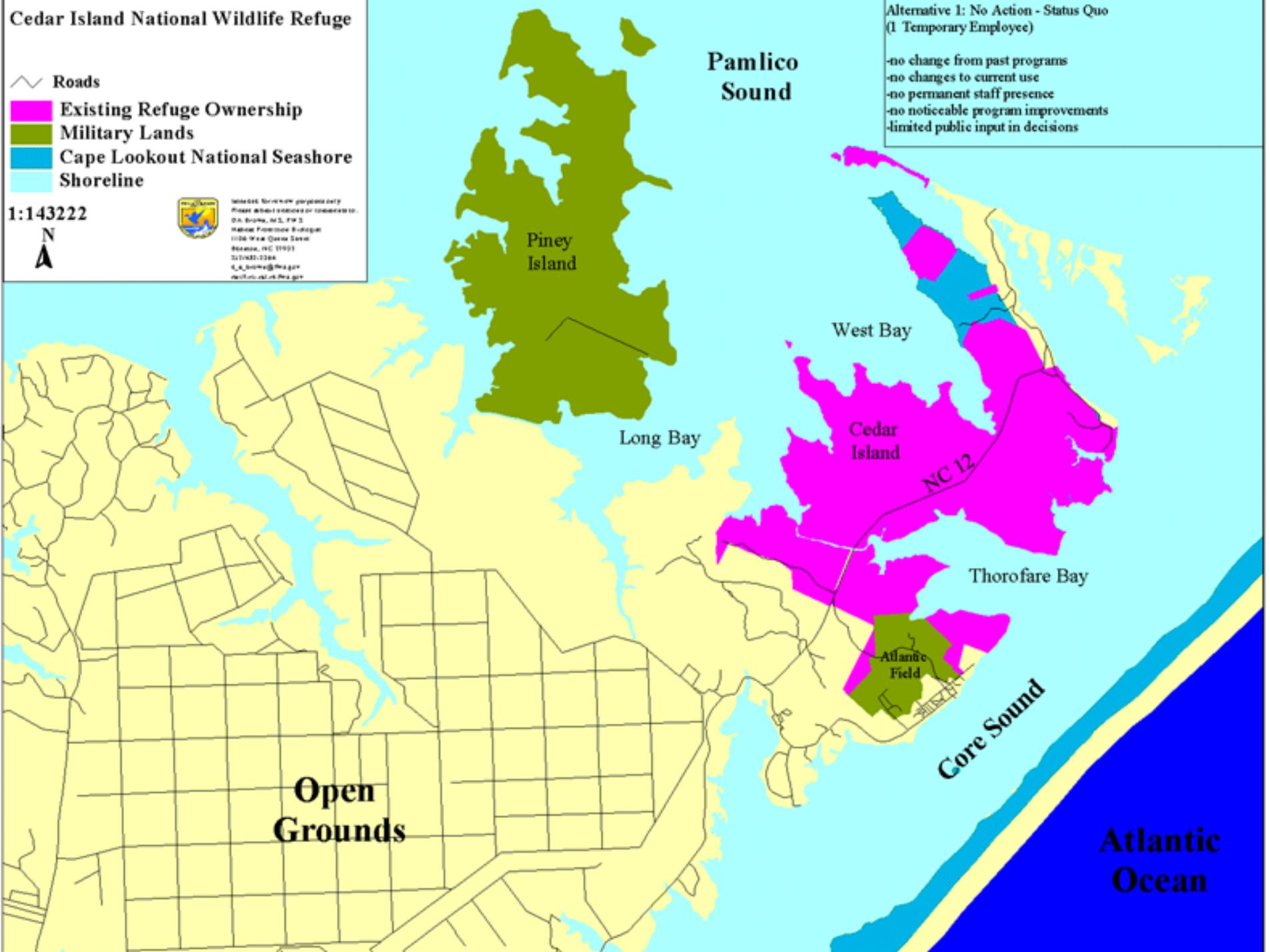


ISSUED: 03/19/04 prepared by:  
Pamlico Wildlife Refuge or Cooperative  
Dr. Bruce M.S. Fox S  
Habitat Protection Division  
1150 West Oyster Service  
Beaufort, NC 28511  
Tel: 252-733-1284  
E-mail: bmf@fws.gov  
http://www.fws.gov

Alternative 1: No Action - Status Quo  
(1 Temporary Employee)

- no change from past programs
- no changes to current use
- no permanent staff presence
- no noticeable program improvements
- limited public input in decisions

## Pamlico Sound



Piney Island

Long Bay

West Bay

Cedar Island

NC 12

Thorofare Bay

Atlantic Field

Core Sound

Open Grounds

Atlantic Ocean



# **Cedar Island National Wildlife Refuge**

## **ALTERNATIVE 2: Minimum program increases (7 Full-Time Employees)**

- begin basic wildlife survey and monitoring**
- document bird populations**
- conduct regular prescribed burns**
- increase public use opportunities**
- increase hunting area**
- add some staff and improve existing facilities**
- monitor corridors and rights-of-way**
- begin filling existing approved boundary**





# **Cedar Island National Wildlife Refuge**

## **ALTERNATIVE 3: Moderate program increases (12 Full-Time Employees)**

- increase wildlife survey and monitoring**
- document populations of birds and mammals**
- conduct regular prescribed burns**
- increase habitat management**
- increase public use opportunities and develop additional facilities**
- increase hunting area over Alternative 2**
- add additional staff and increase facilities**
- monitor corridors and rights-of-way**
- actively fill existing approved boundary**

# Cedar Island National Wildlife Refuge

- Roads
- Existing Refuge Ownership
- Approved for Acquisition
- Military Lands
- Cape Lookout National Seashore
- Shoreline

1:143222



ISSUED: 03/16/10 10:00 AM  
Please refer to the following:  
D.A. Stone, M.S., FW-2  
National Wetlands biologist  
1126 West Ocala Street  
Beaufort, NC 28511  
252/837-1284  
d\_a\_stone@fws.gov  
http://www.fws.gov

## Pamlico Sound

Alternative 3: Moderate program increases  
(12 Full-Time Employees)

- increase wildlife survey and monitoring
- document bird and mammal populations
- conduct regular prescribed burns
- increase habitat management
- increase public use opportunities and develop additional facilities
- increase hunting area over Alternative 2
- add additional staff and increase facilities
- monitor corridors and rights-of-way
- actively fill existing approved boundary

Piney Island

Long Bay

West Bay

Cedar Island

NC 12

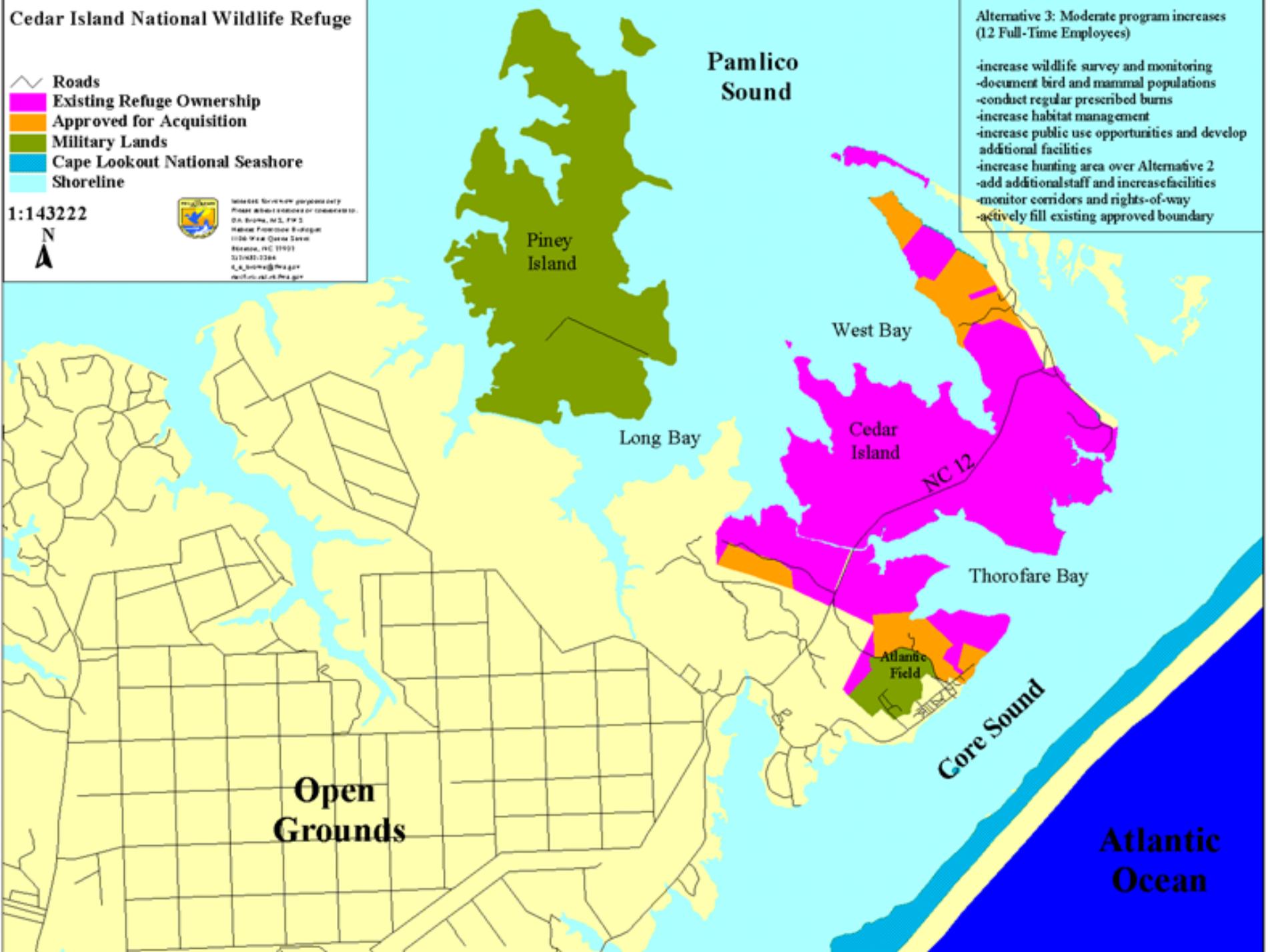
Thorofare Bay

Atlantic Field

Core Sound

Open Grounds

Atlantic Ocean





# **Cedar Island National Wildlife Refuge**

## **ALTERNATIVE 4: Optimum program increases and moderate refuge expansion (19 Full-Time Employees)**

- **comprehensive wildlife survey and monitoring**
- **document populations of trust or indicator species occurring**
- **conduct regular prescribed burns**
- **increase habitat management**
- **add impoundments for waterfowl and fish**
- **increase public use opportunities and develop additional facilities**
- **increase hunting area over Alternative 3**
- **add additional staff and increase facilities**
- **monitor corridors and rights-of-way**
- **increase existing approved boundary by 11,000 acres**

# Cedar Island National Wildlife Refuge

- Roads
- Existing Refuge Ownership
- Approved for Acquisition
- Additional Resource Protection
- Military Lands
- Cape Lookout National Seashore
- Shoreline

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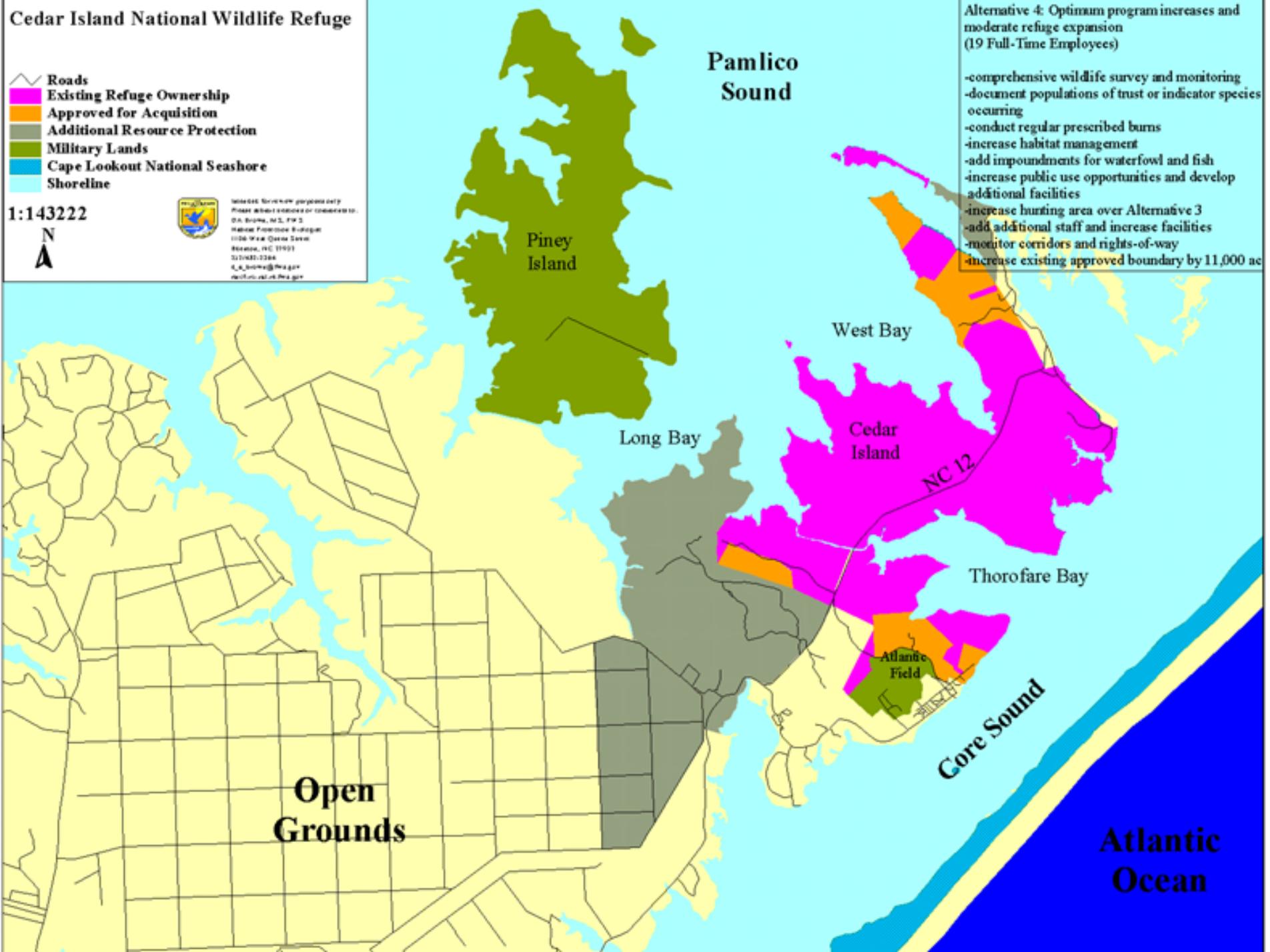


ISSUED: 03/10/09 10:00 AM  
Please refer to the following:  
D.A. BROWN, M.S., FWS  
Habitat Protection Biologist  
1126 West Oakes Drive  
Waxahatchee, NC 27167  
337-987-1284  
d\_a\_brown@fws.gov  
http://www.fws.gov

## Pamlico Sound

Alternative 4: Optimum program increases and moderate refuge expansion (19 Full-Time Employees)

- comprehensive wildlife survey and monitoring
- document populations of trust or indicator species occurring
- conduct regular prescribed burns
- increase habitat management
- add impoundments for waterfowl and fish
- increase public use opportunities and develop additional facilities
- increase hunting area over Alternative 3
- add additional staff and increase facilities
- monitor corridors and rights-of-way
- increase existing approved boundary by 11,000 ac



Piney Island

Long Bay

West Bay

Cedar Island

NC 12

Thoroughfare Bay

Atlantic Field

Open Grounds

Core Sound

Atlantic Ocean



# **Cedar Island National Wildlife Refuge**

## **ALTERNATIVE 5: Optimum program increases and significant refuge expansion (40 Full-Time Employees)**

- **comprehensive wildlife survey and monitoring**
- **document populations of trust or indicator species occurring**
- **conduct regular prescribed burns**
- **increase habitat management**
- **add impoundments for waterfowl and fish**
- **increase public use opportunities and develop additional facilities**
- **increase hunting area over Alternative 4**
- **add additional staff and increase facilities**
- **monitor corridors and rights-of-way**
- **increase existing approved boundary by 84,000 acres**

# Cedar Island National Wildlife Refuge

- Roads
- Existing Refuge Ownership
- Approved for Acquisition
- Additional Resource Protection
- Landscape Level Conservation
- Cape Lookout National Seashore
- Shoreline

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ISSUED: 03/10/09 09:00 AM  
Please refer to the following:  
D.A. BROWN, M.S., FWS  
Natural Resources Biologist  
1100 West Oakes Drive  
Beaufort, NC 21501  
Tel: 252-733-1284  
E: d\_a\_brown@fws.gov  
http://www.fws.gov

## Pamlico Sound

Alternative 5: Optimum program increases and significant refuge expansion (40 Full-Time Employees)

- comprehensive wildlife survey and monitoring
- document populations of trust or indicator species occurring
- conduct regular prescribed burns
- increase habitat management
- add impoundments for waterfowl and fish
- increase public use opportunities and develop additional facilities
- increase hunting area over Alternative 4
- add additional staff and increase facilities
- monitor corridors and rights-of-way
- increase existing approved boundary by 84,000 ac (13,561 ac of which is Military Land)

