



Mattamuskeet National Wildlife Refuge

MATTAMUSKEET NATIONAL WILDLIFE REFUGE

October 2001

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Mattamuskeet National Wildlife Refuge

ESTABLISHING AUTHORITIES. . .

- **The refuge was acquired under the authority of the National Industrial Recovery Act (48 Statute 195) and was established under Executive Order No. 6924 in 1934.**



Mattamuskeet National Wildlife Refuge

Purposes . . .

“...as a refuge and breeding ground for birds and wild animals, and (2) that such portion as the Secretary of Agriculture (Interior) may deem proper be reserved for use as a shooting area, ... said waters may be used for fishing purposes ...” Executive Order 6924, dated December 18, 1934.



Mattamuskeet National Wildlife Refuge

WILDLIFE SPECIES OF MANAGEMENT CONCERN

Tundra swan
Canada goose
Snow goose
American black duck
Northern pintail
Canvasback
Wood duck
Brown-headed nuthatch
Black-throated green warbler
King rail
Yellow rail
Solitary sandpiper
Semi-palmated sandpiper
Short-billed dowitcher
Peregrine falcon
Bald eagle
Osprey

White-tailed deer
Red wolf

Carolina pygmy rattlesnake
Alewives (herring)





Mattamuskeet National Wildlife Refuge

HABITAT DIVERSITY . . .

50,180 acres total

open water (40,000 acres)

wet pine flatwoods (3,000 acres)

moist soil units (2,424 acres)

natural lake shoreline (2,430 acres)

cypress-gum swamp (1,726 acres)

cropland (400 acres)

non-riverine swamp forest: mature Loblolly pine (160 acres)

administrative areas (50 acres)





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HABITAT MANAGEMENT . . .

- **Prescribed burning of marsh and pine forests**
- **Water management for waterfowl, shorebirds and other migratory birds and fish**
- **Management of moist soil units to provide natural foods and habitats for waterfowl and other migratory birds**
- **Mechanical and chemical control of invasive plant species**
- **Farming for supplemental foods to benefit waterfowl and other wildlife**





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PEOPLE . . .

- Fishing
- Hunting
- Environmental education
- Environmental interpretation
- Wildlife observation
- Wildlife photography

plus other activities such as hiking, canoeing, and picnicking





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RESOURCE PROTECTION (including land acquisition and monitoring of permitted activities) . . .

- **Natural Heritage Area**
- **Registered Heritage Area**
- **Research Natural Area**
- **Proposed Wilderness**
- **National Register of Historic Places**
- **Special use permits**
- **Pest plant and animal control**
- **Water control**





Mattamuskeet National Wildlife Refuge

LAW ENFORCEMENT ISSUES . . .

- **Hunting Violations**
- **Fishing/Boating Violations**
- **Dumping/Littering**
- **Poaching**
- **Reptile Collecting**
- **Trespass**
- **Vandalism**
- **Drug and Alcohol Use**
- **Drainage Ditches**
- **Wildlife Disturbance**

(Law enforcement provided by one officer shared between Mattamuskeet and Mattamuskeet NWRs and two collateral duty officers at Mattamuskeet NWR)



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MATTAMUSKEET NWR COMPREHENSIVE CONSERVATION PLAN



Mattamuskeet National Wildlife Refuge

The Process to date . . .

- Preplanning** **November 2000**
- Biological Reviews** **December 1999-
December 2000**
- Public Involvement
(see handouts)** **February 2001**
- Issues, Vision, Goals** **April 2001**
- Alternative/Objective
Development** **April 2001**

REFUGE VISION



GOALS



OBJECTIVES



Strategies

Projects

Strategies

Projects

Strategies

Projects

Vision Statement

Mattamuskeet National Wildlife Refuge will be a vital part of the National Wildlife Refuge System. The refuge will remain a premier wintering area for ducks, geese, and swans on the Atlantic flyway. Natural breeding habitat will be maintained for a variety of migratory birds. Further, an extensive network of managed freshwater marsh will also be maintained for migratory bird use. Mattamuskeet National Wildlife Refuge will protect wildlife species (endangered, threatened, species of management concern), whilst providing high quality recreation opportunities for hunting and fishing. The refuge will increase public use in education, interpretation, and visitor services such as a visitor center. At the same time, the refuge will continue to cooperate with partners and volunteers, and will conduct research in cooperation with agencies, universities, and others. Mattamuskeet National Wildlife Refuge will protect and enhance a healthy freshwater lake ecosystem, and will provide adequate staff and facilities to manage the refuge. Party on, dudes!

GOALS

WILDLIFE, FISH AND PLANT POPULATIONS: Preserve, enhance, and maintain healthy populations of migratory birds, wildlife, fish, and plants, including federal and state endangered and threatened species.

HABITAT: Protect and enhance terrestrial, wetland, and aquatic habitats associated with the Lake Mattamuskeet environment.

PUBLIC USE: Develop programs and facilities to provide public use opportunities including fishing, hunting, environmental education, interpretation, wildlife photography and wildlife observation as they are compatible with refuge purposes.

ADMINISTRATION: Provide adequate staff, equipment, facilities, and funding to accomplish refuge goals and objectives.

RESOURCE PROTECTION: Protect refuge resources by limiting impacts of human activity on and around the MNWR.

WILDLIFE ISSUES FROM SCOPING MEETINGS

- **Announce waterfowl migration updates on local news**
- **Capture and remove every Red wolf in Hyde County**
- **Continue conducting research on black bears to determine home range and harvest potential**
- **Continue surveys and monitoring**
- **Control nutria in canals**
- **Control the red wolf**
- **Develop a trapping program for furbearers, predators, beavers, and nutria**
- **Develop beaver management guidance**
- **Develop species list for all fish using the lake**
- **Evaluate food chain impacts of fire ants on other species**
- **Evaluate water management impacts to fish and wildlife on each refuge**
- **Examine water quality and silting in canals leading to the lake**
- **Improve fish access to the lake**
- **Involve Hyde County residents in the Red Wolf Program**
- **Post signage for swan observation**
- **Seek compromises in red wolf management**
- **Speed up beaver eradication**
- **Stock Florida largemouth bass in the lake**
- **Study and evaluate anadromous fish populations**
- **Use money to raise ducks and geese**

HABITAT ISSUES FROM SCOPING MEETINGS

- **Clean out and regularly maintain duck boxes**
- **Connect larger blocks of land through corridors for black bear**
- **Control non-native and invasive species**
- **Coordinate with local landowners to maintain lake at appropriate levels**
- **Coordinate with non-profit agencies to ensure that land conservation needs are met**
- **Determine whether FWS is purposely flooding adjacent land**
- **Determine whether high lake levels are converting adjacent uplands to wetlands**
- **Develop a program to do away with common reed**
- **Evaluate need for increased growth of cypress around lake**
- **Evaluate the impacts to adjacent landowners from management practices**
- **Improve fish habitat**
- **Increase current eradication budget**
- **Lower water levels in the lake**
- **Monitor effect of water levels on duck populations in the lake**
- **Increase funding to accommodate programs**
- **Provide education on how the lake works and the role FWS plays in lake level maintenance**
- **Review and coordinate on the Wetland Reserve Program**
- **Study summertime water temperature and DO in canals**
- **Survey canals for deepwater habitat**

HABITAT MANAGEMENT ISSUES FROM SCOPING MEETINGS

- **Blast canals with dynamite**
- **Clean out silted canals**
- **Conduct commercial thinnings**
- **Conduct regular prescribed burns**
- **Consider a 'refuge workday'**
- **Control beavers to help control ditch problems**
- **Cooperate with other agencies to share all available data**
- **Coordinate with WRC to provide early successional habitat for bobwhite quail**
- **Ditch and dredge canals**
- **Engage in cooperative research efforts with other agencies (i.e. black bear)**
- **Evaluate data for use in general management**
- **Evaluate salt intrusion into lake from water control gates**
- **Evaluate the size and effectiveness of existing firebreaks**
- **Evaluate the validity of timber harvest for the purpose of fire control**
- **Fully staff the refuge**

HABITAT MANAGEMENT ISSUES FROM SCOPING MEETINGS

- Include people in the planning process**
- Increase data collection efforts**
- Involve local citizens from each county in the planning process**
- Keep management styles flexible**
- Maximize wildlife benefits inside impoundments, using mechanical and chemical means**
- Obtain more funding to manage land in possession**
- Obtain staff and equipment to fully implement prescribed burn program**
- Re-design water control gates**
- Separate management of Mattamuskeet and Swanquarter from Cedar Island**
- Speed up structure replacement process by using old design**
- Use fire in the role it played naturally**
- Use forestry techniques such as thinnings, for support and benefit of wildlife**
- Utilize volunteers for maintenance, manpower and equipment**
- Work with other agencies to maximize the benefit of their work**

PUBLIC USE ISSUES FROM SCOPING MEETINGS

- **Allow horseback riding**
- **Allow nighttime bass fishing in the summer**
- **Attract ecotourism**
- **Consider rotating or moving blind to varying locations**
- **Consider sailing, kayaking, canoeing on lake**
- **Consider windsurfing, remote control model boats**
- **Continue other public use activities**
- **Continue providing access to Bell Island fishing**
- **Continue use of the lodge**
- **Coordinate with WRC on black bear permit hunting issues**
- **Coordinate with WRC on hunting activities**
- **Coordinate with WRC to help manage the black bear hunts**
- **Determine whether mountain bikes could use the road system**
- **Develop appropriate signage indicating where existing facilities are**
- **Develop canoe and kayak trails for public use**
- **Develop more facilities**
- **Develop other areas on the refuge for hunting**
- **Develop program to improve view of the lake by eradicating common reed**
- **Develop public education programs on positive effects of refuge management practices**

PUBLIC USE ISSUES FROM SCOPING MEETINGS

- **Develop public facilities at Mattamuskeet**
- **Develop public school program to explain uses allowed in wilderness areas**
- **Develop public school programs on wilderness area**
- **Don't dig a ditch to catch mud around new boat ramps**
- **Educate and involve more youth in hunting programs**
- **Evaluate camping platform needs for outfitters**
- **Evaluate the potential for quail hunting should be considered on the refuge**
- **Expand public uses other than hunting and fishing**
- **Improve existing blind**
- **Improve public outreach to reduce general feelings of mistrust**
- **Increase education and outreach**
- **Increase facilities and programs**
- **Increase hiking trails**
- **Increase programs**
- **Increase programs to attract more people**
- **Increase public access**
- **Increase public waterfowl hunting**
- **Increase refuge involvement with public use activities**
- **Increase signage regarding road access**
- **Increase the number of duck blinds**
- **Increase use of volunteers**
- **Increase volunteer program**

PUBLIC USE ISSUES FROM SCOPING MEETINGS

- **Increase volunteer use**
- **Maintain east side of the causeway to improve view**
- **Make more roads available**
- **Make public use more convenient**
- **Open the refuge roads and trails to horseback riding**
- **Prohibit certain size boats and motors on the lake**
- **Provide more ecotourism opportunities**
- **Recognize the importance of the refuge to Hyde County**
- **Renovate the lodge or surrender it to another agency**
- **Repair the lodge or surrender it to the state**

RESOURCE PROTECTION ISSUES FROM SCOPING MEETINGS

- **Acquire more land**
- **Champion ecotourism**
- **Charge reasonable and low user fees offset tax losses, returning them to the county**
- **Consider buying more easements**
- **Control trespassing**
- **Control waterfowl baiting on adjacent land**
- **Cooperate to obtain funding for improved wildlife management, rather than acquisition**
- **Cooperate with private landowners to manage land for wildlife**
- **Coordinate with county managers**
- **Coordinate with other agencies prior to acting on land management practices**
- **Create more wilderness**
- **Create wilderness areas**
- **Create wildlife corridors**
- **Develop a connecting corridor between Swanquarter and Mattamuskeet, through acquisition**
- **Develop and enforce a 'no wake zone' within 300 feet of other boats**
- **Develop economic cost/benefit analysis of MNWR's impact on local economy**
- **Develop education program on other refuges in the area**
- **Develop public use education programs on what wilderness designations mean**
- **Do not acquire more land**
- **Do not consider corridors in refuge management**
- **Do not create more wilderness**

RESOURCE PROTECTION ISSUES FROM SCOPING MEETINGS

- **Evaluate and educate public on tax revenue cost sharing program**
- **Evaluate economic magnitude of current income producing refuge public uses**
- **Evaluate management limitations of wilderness designations**
- **Evaluate the condition of continuously flooded uplands adjacent to the lake**
- **Improve lake safety**
- **Include history and interpretative material on the lake, the lodge, and surrounding area**
- **Incorporate local culture and heritage of the area into refuge programs**
- **Increase law enforcement**
- **Maintain existing lands with current budget**
- **Obtain more law enforcement**
- **Prohibit certain size boats and motors on the lake**
- **Provide lists of permitted activities in wilderness areas**
- **Provide more competitive salaries**
- **Re-evaluate existing surveys used to acquire private property**
- **Restore Mattamuskeet Lodge**
- **Secure funds for lodge restoration**
- **Transfer lodge ownership to another agency**
- **Use advice from local experts when developing plans**
- **Use available acquisition budget to fund refuge maintenance deficits**
- **Use funds for better maintenance instead of acquisition**



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3 Management Alternatives Derived from Public Involvement and Strategic Planning . . .

- 1. Existing conditions (status quo)**
- 2. Minimum program increases**
- 3. Moderate program increases and buffer land protection**
- 4. Optimum program increases and buffer and landscape level land protection**



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ALTERNATIVE 1: No Action – Status Quo (10 FTE Staff Shared with Swanquarter and Cedar Island NWR, 8 FTE Staff Dedicated to Mattamuskeet NWR)

Biological Program Focused on Selected Wildlife Species and Habitats

Habitat Management Focused on Intensive Moist Soil Management

Fire Management Limited to Prescribed Burning Occasionally

Public Use Program includes All Priority Public Uses, but Focused on Hunting and Fishing

Small Office/Visitor Contact Station

**Law Enforcement Officer Shared with 4 Other Refuges,
Collateral Duty Officer Shared with 2 Other Refuges**

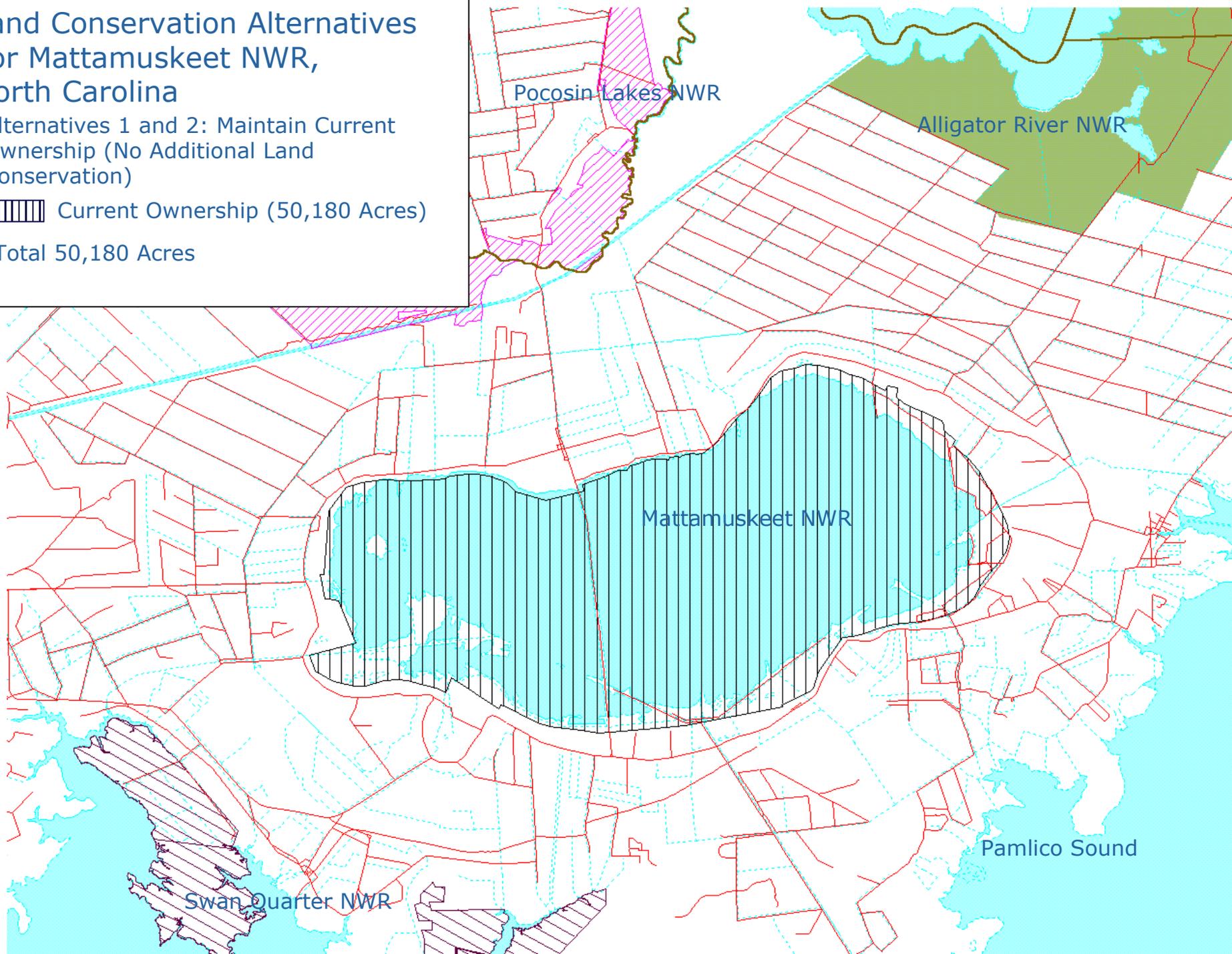
No Additional Land Protection

Land Conservation Alternatives For Mattamuskeet NWR, North Carolina

Alternatives 1 and 2: Maintain Current
Ownership (No Additional Land
Conservation)

 Current Ownership (50,180 Acres)

Total 50,180 Acres





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ALTERNATIVE 2: Minimum Program Increases (11 FTE Dedicated Staff)

Biological Program Enhanced to More Selected Wildlife Species and Habitats

Habitat Management Focused on Intensive Moist Soil Management

Fire Management Increased to Prescribed Burning Regularly

Public Use Program Includes All Priority Public Uses with Minimal Increases in Non-consumptive Uses

Small Office/Visitor Contact Station

Pumps and Water Control Structures Replaced

**Law Enforcement Officer Shared with Swanquarter
NWR, Dedicated Collateral Duty Officers**

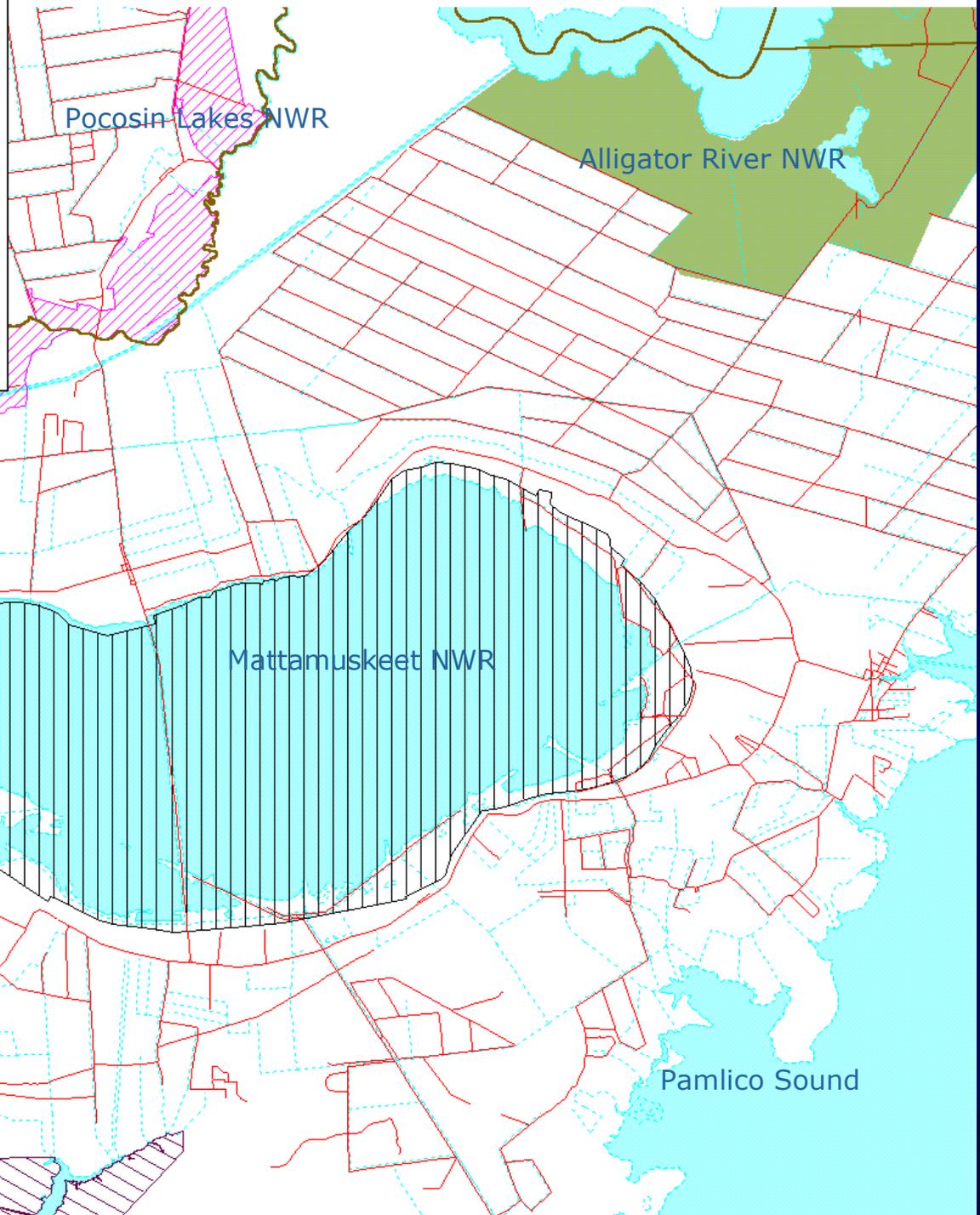
No Additional Land Protection

Land Conservation Alternatives For Mattamuskeet NWR, North Carolina

Alternatives 1 and 2: Maintain Current
Ownership (No Additional Land
Conservation)

 Current Ownership (50,180 Acres)

Total 50,180 Acres





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ALTERNATIVE 3: Moderate Program Increases and Buffer Land Protection (? FTE Dedicated Staff)

Biological Program Diversified to All Wildlife Species and Habitats

Habitat Management Focused on Intensive Moist Soil Management, Timber Management, and Restoration of Newly Acquired Land

Fire Management Increased to Prescribed Burning Regularly

Public Use Program Diversified to All Priority Public Uses

New Office/Visitor Center

Pumps and Water Control Structures Replaced

**Law Enforcement Officer Shared with Swanquarter and Cedar Island NWR,
Dedicated Collateral Duty Officers**

Protect Additional Land to Provide Buffer Around Lake

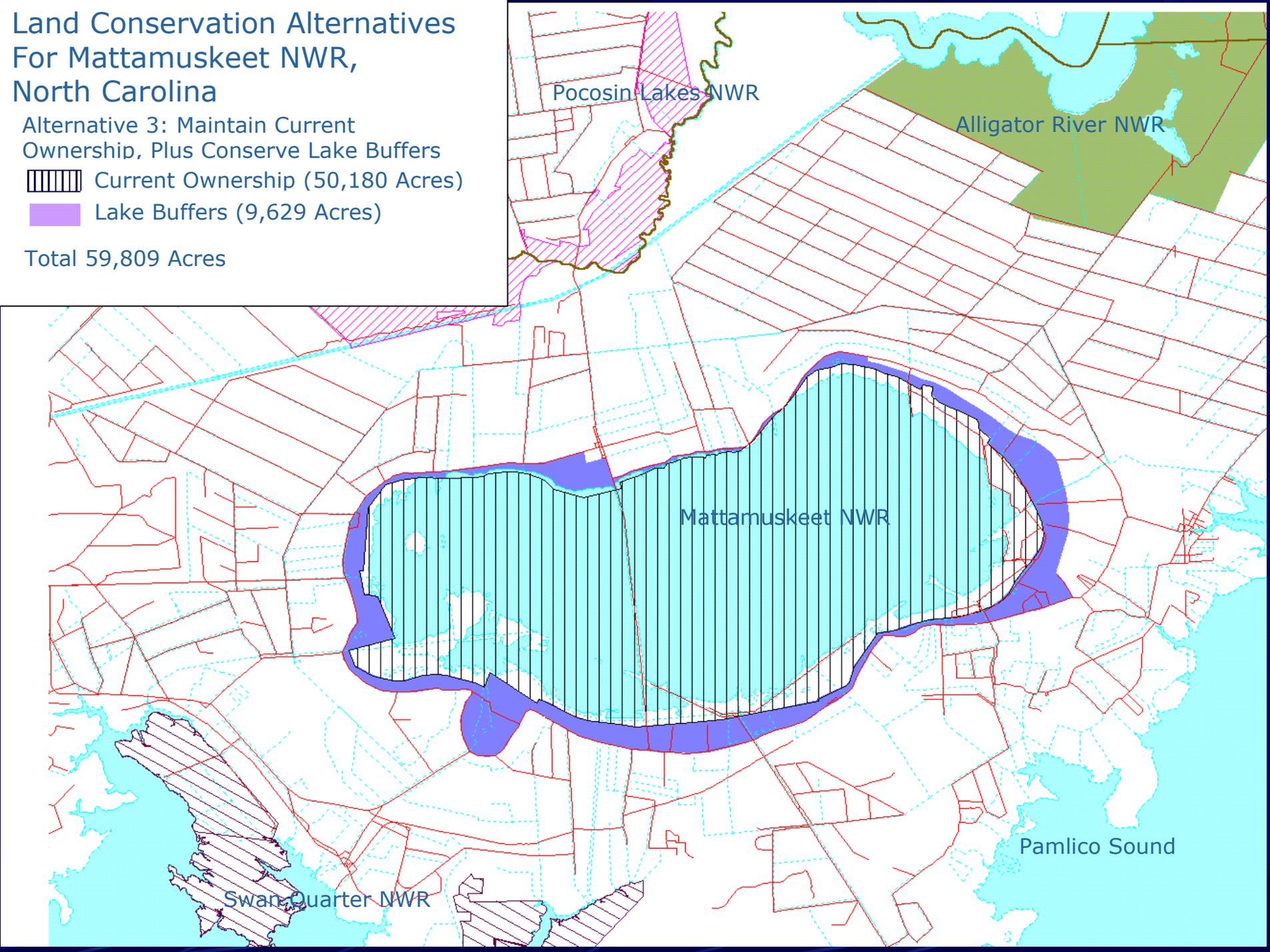
Land Conservation Alternatives For Mattamuskeet NWR, North Carolina

Alternative 3: Maintain Current
Ownership, Plus Conserve Lake Buffers

 Current Ownership (50,180 Acres)

 Lake Buffers (9,629 Acres)

Total 59,809 Acres





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ALTERNATIVE 4: Optimum Program Increases and Buffer and Landscape Level Land Protection (? FTE Dedicated Staff)

Biological Program Diversified to All Wildlife Species and Habitats

Habitat Management Focused on Intensive Moist Soil Management, Timber Management, and Restoration of Newly Acquired Land

Fire Management Increased to Prescribed Burning Regularly

Public Use Program Diversified to All Priority Public Uses

New Office/Visitor Center

Pumps and Water Control Structures Replaced

**Law Enforcement Officer Shared with Swanquarter and Cedar Island NWR,
Dedicated Collateral Duty Officers**

**Protect Additional Land to Provide Buffer Around Lake and
Corridors**

Land Conservation Alternatives For Mattamuskeet NWR, North Carolina

Alternative 4: Maintain Current
Ownership, Conserve Lake Buffers,
Conserve Areas Connecting to Other
National Wildlife Refuges

-  Current Ownership (50,180 Acres)
-  Lake Buffers (9,629 Acres)
-  Conservation Areas (41,824 Acres)

Total 101,633 Acres

