

**Draft Environmental Assessment and
Land Protection Plan
For
The Proposed Expansion of St. Marks
National Wildlife Refuge**

Wakulla, Jefferson, Taylor, and Franklin Counties

Southeast Region



**ENVIRONMENTAL ASSESSMENT AND LAND PROTECTION PLAN
FOR THE PROPOSED EXPANSION OF
ST. MARKS NATIONAL WILDLIFE REFUGE**

Wakulla, Jefferson, Taylor, and Franklin Counties, Florida

**U.S. Department of the Interior
Fish and Wildlife Service
Southeast Region
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TABLE OF CONTENTS

I.	PURPOSE AND NEED FOR ACTION	1
A.	Introduction	1
B.	Purpose.....	1
C.	Background.....	2
D.	Proposed Action.....	5
E.	Coordination and Consultation.....	9
F.	Fish and Wildlife Service Land Acquisition Policy.....	9
II.	ALTERNATIVES INCLUDING THE PROPOSED ACTION	11
A.	Alternative 1: No Action.....	11
B.	Alternative 2: Protection and Management of up to 35,295 Acres by the Fish and Wildlife Service (Proposed Alternative).....	11
C.	Alternative 3: Protection and Management of up to 25,307 Acres by the Fish and Wildlife Service	12
III.	AFFECTED ENVIRONMENT	15
A.	General	15
B.	Vegetation and Land Use.....	15
	Rare Plants	21
C.	Wildlife Resources	23
	Black Bear.....	24
	American Swallow-tailed Kite.....	28
	Red-cockaded Woodpecker.....	28
	Wood Stork	28
	Frosted Flatwoods Salamander	29
	Waterfowl, Shorebirds, and Other Migratory Birds.....	29
D.	Fishery Resources	30
E.	Socioeconomic and Sociocultural Conditions	30
F.	Cultural Resources.....	30
IV.	ENVIRONMENTAL CONSEQUENCES	33
A.	Alternative 1: No Action.....	33
B.	Alternative 2: Protection and Management of up to 35,295 Acres by the Fish and Wildlife Service (Proposed Alternative).....	33
C.	Alternative 3: Protection and Management of 25,307 Acres by the Fish and Wildlife Service	35
V.	INFORMATION ON PREPARERS	35
VI.	SUMMARY OF PROPOSED ACTION	35

APPENDICES

APPENDIX A. CONCEPTUAL MANAGEMENT PLAN.....	41
APPENDIX B. PRE-ACQUISITION COMPATIBILITY DETERMINATION	49
APPENDIX C. INTERIM RECREATION ACT FUNDING ANALYSIS.....	57

LIST OF FIGURES

Figure 1. St. Marks NWR.....	3
Figure 2. Lands included in the proposed project under Alternative 2.....	7
Figure 3. Lands included in the proposed project under Alternative 3.....	13
Figure 4a. Land cover classification of lands in the proposed project under Alternative 2 (Map 1)....	17
Figure 4b. Land cover classification of lands in the proposed project under Alternative 2 (Map 2)....	19
Figure 5. St. Marks NWR proposed expansion: Florida Fish and Wildlife Conservation Commission black bear habitat conservation priorities.....	25
Figure 6. Florida Forever Black Bear Working Group Land Acquisition Priorities for Florida Black Bear.....	27
Figure 7. Frosted Flatwoods Salamander Breeding Pond Locations on St. Marks NWR and Proposed Expansion Areas 9 and 10.....	31
Figure 8. St. Marks NWR Proposed Expansion: Acquisition Priority Ranking.....	39

LIST OF TABLES

Table 1. Summary of habitat types (by acres) within the proposed expansion area	16
Table 2. Documented and likely occurrences of rare plant species	22
Table 3. Protection priorities and recommended methods of acquisition	37

I. PURPOSE AND NEED FOR ACTION

A. INTRODUCTION

The U.S. Fish and Wildlife Service (Service) proposes to protect and manage upland pine forests, wetlands, and coastal habitats in Wakulla, Jefferson, Taylor, and Franklin Counties, Florida, through the expansion of the St. Marks National Wildlife Refuge (NWR).

The mission of the National Wildlife Refuge System is "... to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans" (National Wildlife Refuge System Improvement Act of 1997). National wildlife refuges provide important habitat for native plants and many species of mammals, birds, fish, insects, amphibians, and reptiles. They also play a vital role in preserving threatened and endangered species. Refuges offer a wide variety of wildlife-dependent recreational opportunities and many have visitor centers, wildlife trails, and environmental education programs. Nationwide, about 25 million visitors annually hunt, fish, observe and photograph wildlife, or participate in educational and interpretive activities on refuges.

The scope of this environmental assessment (EA) is limited to the proposed acquisition of lands for the expansion of the St. Marks NWR. This EA is not intended to cover the development and/or implementation of detailed, specific programs for the administration and management of those lands. A conceptual management plan (Appendix A) and interim compatibility determination (Appendix B) are enclosed to provide general outlines on how the proposed lands would be managed. The appendices are provided as general information for the public in its review of the EA. If the refuge is expanded and the needed lands or interests in lands are acquired, the Service will modify the refuge's existing management plans to incorporate the new lands and resources under its ownership. At that time, these modified refuge management plans will be reviewed in accordance with the Departmental requirements of the National Environmental Policy Act (NEPA).

B. PURPOSE

This EA presents a proposal for protection of additional wildlife habitat in Wakulla, Jefferson, Taylor, and Franklin Counties, through the expansion of the St. Marks NWR. This proposal would expand the acquisition boundaries for the refuge.

Acquisition boundaries are administrative lines delineating areas in which the Service may consider negotiations with willing owners for acquisition of an interest in land. Lands within a refuge acquisition boundary do not become part of the refuge unless and until a legal interest is acquired through a management agreement, easement, lease, donation, or purchase. Lands within an acquisition boundary are not subject to any refuge regulations or jurisdiction unless and until an interest is acquired. Land interests are acquired from willing sellers/owners only. Any landowner that is within an approved acquisition boundary, even though the surrounding parcels may have been purchased by the Service, retains all the rights, privileges, and responsibilities of private land ownership. This includes, but is not limited to, the right to access, hunting, vehicle use, control of trespass; the right to sell the property to any other party; and the responsibility to pay local real estate or property taxes. Additional information regarding the Service's land acquisition policy is provided in subsection F.

Within approved acquisition boundaries, the Service would be able to enter into negotiations for the protection of environmentally sensitive lands. The most urgent needs for acquiring an interest in these lands are as follows (in no particular order):

- Protection of occupied habitat of the threatened flatwoods salamander;
- Protection of a regionally significant bird rookery at Lanark Reef;
- Protection and restoration of the southern portion of the East River Watershed, thereby restoring management capabilities of the refuge impoundments to benefit waterfowl, shorebirds, wading birds (including wood storks), marshbirds, and other wetland wildlife;
- Protection of an important Florida black bear corridor;
- Improving the habitat linkages between the refuge and other conservation lands;
- Providing habitat for the restoration of endangered red-cockaded woodpeckers and other declining wildlife associated with the longleaf pine forest; and
- Improving the capability to manage wildlife habitat through prescribed fire and protecting the public from wildfires by securing more readily defensible boundaries.

C. BACKGROUND

St. Marks NWR was established in 1931 under the authority of Executive Order 5740 (Figure 1). The first land set aside under the Migratory Bird Conservation Act and the Six Million Dollar Fund was the 53-acre Lighthouse Reservation. This is an area of salt marshes and grass flats at the mouth of the St. Marks River adjacent to Apalachee Bay. At the time, it was important for migratory Canada geese. On December 24, 1931, President Hoover signed Presidential Proclamation 1982, which established an Executive Closure Area under the authority of the 1918 Migratory Bird Treaty Act and the Migratory Bird Conservation Act of 1929. This prohibited hunting of migratory waterfowl in Apalachee Bay between the St. Marks Lighthouse and the Aucilla River, as well as on private lands bordering the coastal marshes. These inland timber lands were primarily purchased from Phillips Turpentine Company in subsequent years and became the nucleus of what is now the St. Marks Unit of the refuge.

It was under President Franklin D. Roosevelt that the boundaries of today's refuge substantially took shape. Executive Order (EO) 7222, dated November 1, 1935, added approximately 10,108 acres forming most of the current Wakulla Unit of the refuge. EO 7749, dated November 22, 1937, further defined the boundaries of the St. Marks and Wakulla Units, including approximately 31,445 acres. Executive Orders 7977 and 9119, dated September 19, 1938, and April 1, 1942 respectively, added approximately 22,040 acres to form what is now the Panacea Unit out of lands transferred from the Soil Conservation Service's Resettlement Administration. The original Executive Closure Order prohibiting the taking of migratory waterfowl was expanded by Roosevelt's Presidential Proclamation 2264 on December 13, 1937. With Presidential Proclamation 2416 on July 25, 1940, St. Marks Migratory Bird Refuge became St. Marks National Wildlife Refuge. By 1960, the Executive Closure Order boundaries encompassed 67,563 acres.

In recent years the refuge also acquired land through timber-for-lands exchanges. The timber traded under this program was slated for removal in forest prescriptions to improve wildlife habitat. Rather than sell timber directly, the refuge has traded the timber for lands that were either adjacent to the refuge or in-holdings.

The refuge currently covers approximately 70,000 acres with an approved acquisition boundary of 74,469 acres. St. Marks NWR also manages 940 acres of state land and 612 acres of USDA Forest Service land within the approved acquisition boundary. Access to the refuge and proposed expansion areas is by U.S. Highway 98 and Wakulla County Highways 365, 367, and 372.

The proposed boundary expansion encompasses about 35,295 acres in Wakulla, Jefferson, Franklin, and Taylor Counties (Figure 2). Except for Lanark Reef, it generally includes lands adjacent to and between the Ochlockonee and Aucilla Rivers. Acquisition of this area would extend about one third of the refuge's northern boundary to U. S. Highway 98. The proposal would enable the Service to protect and manage up to 109,764 acres of upland pine forest, wetland hardwood forest, pine plantation, shrub and brush land, and freshwater marsh. The expansion would provide additional protection and enhancement of waterfowl, shorebirds, wading birds, neotropical migratory birds, black bears, threatened and endangered species, and a host of other wildlife.

D. PROPOSED ACTION

The Service proposes to acquire, protect, and manage through fee title purchases, leases, conservation easements, and/or cooperative agreements from willing sellers. All lands and waters acquired would be managed by the Service as St. Marks NWR. The objectives of the proposed expansion would be to meet both present and future land conservation and resource protection needs for the St. Marks NWR. By protecting additional conservation lands critical to the management of refuge resources, it is tied to many of the goals and objectives of the Comprehensive Conservation Plan (CCP) for St. Marks National Wildlife Refuge, including:

Goal 1. Wildlife Habitat and Population Management - Conserve, restore, and enhance a natural diversity and abundance of habitats for native plants and animals;

Objective 1: Emphasize and encourage the protection of additional conservation lands, outside the current acquisition boundary, that are critical to the management of refuge protected resources (black bear, frosted flatwoods salamander, and migratory birds);

Objective 7: Protect natural wetlands and aquatic habitats and restore natural hydroperiods for the benefit of native wildlife with an emphasis on trust species;

Objective 8: Improve management of refuge fisheries;

Objective 9: Continue to restore and maintain open multi-aged, historic pine communities with low, diverse understories (red-cockaded woodpeckers, frosted flatwoods salamanders, black bear);

Goal 2. Threatened, Endangered, Rare, and Imperiled Species - Conserve and enhance populations of threatened, endangered, rare, and imperiled plants and animals and their native habitats (frosted flatwoods salamander, black bear, wood stork);

Objective 11: Provide suitable black bear habitat, including corridors and links to the major population centers of the Apalachicola National Forest/Tate's Hell State Forest, and the Aucilla/Wacissa River areas;

Objective 15: By 2014, inventory and manage rare and listed plants;

Goal 3. Migratory Birds - Provide high-quality habitat for migratory birds (swallow tailed kite, neotropical migrants);

Objective 3: Provide nesting, foraging, and important migratory stopover habitat for shorebirds, waterbirds, and marshbirds in accordance with the Southeastern Coastal Plain and Caribbean Region Shorebird Conservation Plan, the Partners in Flight Program, and the Southeastern Coastal Plain Colonial Waterbird Conservation Regional Plan;

Objective 4: Employ active water and plant community management activities on most impoundments to create a range of freshwater to slightly brackish environs on approximately 1,600 acres within the St. Marks Unit;

Objective 5: Manage to restore and maintain/improve refuge forested habitats, particularly pine flatwoods, pine cabbage-palmetto hammocks, mesic and hydric pine hardwoods, and hardwood hammocks for migratory birds;

Goal 4. Visitor Services - Promote an understanding and appreciation of fish and wildlife resources and provide visitors with a quality, safe, and enjoyable experience compatible with wildlife and wildland conservation;

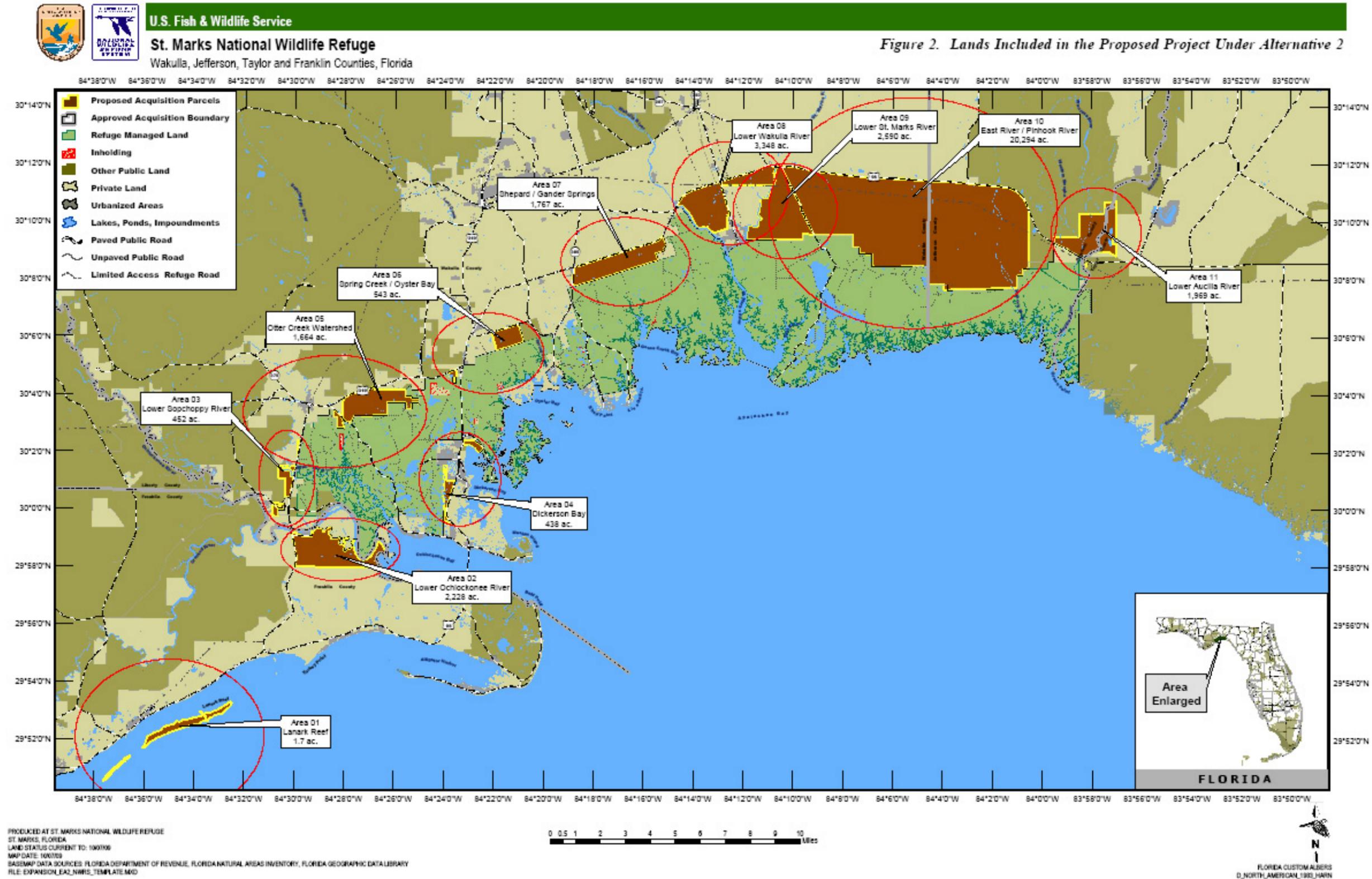
Objective 3: Provide biologically sound hunting opportunities commensurate with population status of game species on the refuge;

Objective 4: Provide safe sport fishing opportunities to the public, compatible with wildlife and resource objectives and the Fisheries Management Plan;

Objective 5: By 2011, assess and enhance opportunities for all visitors to view and photograph wildlife and wildlands as a means of understanding and supporting the refuge mission;

Goal 5. Cultural Resource Management and Protection - Protect archaeological, cultural, and historic resources for future generations as examples of human interaction with the natural environment (all Areas except Area 1 contain significant cultural resources);

Figure 2. Lands included in the proposed project under Alternative 2



Because the proposed expansion areas provide wintering habitat for migratory songbirds and waterfowl and forested habitat for the black bear, funding for this project would be sought through the Land and Water Conservation Fund, as authorized by the Fish and Wildlife Act of 1956, as amended (16 U.S.C. 742j), and the Migratory Bird Conservation Fund as authorized by the Migratory Bird Conservation Act of 1929 (16 U.S.C. 715d).

E. COORDINATION AND CONSULTATION

This proposed expansion of St. Marks NWR has been a natural extension of Goal 1, Objective 1, of the approved CCP for St. Marks NWR, calling for the protection of additional conservation lands adjacent to the refuge. The proposed alternative (Alternative 2) includes all of the lands identified in the CCP, plus Lanark Reef.

The CCP for St. Marks NWR was developed through the coordination of several teams and advisory groups in the planning process, with representation from the Service, the Florida Department of Environmental Protection, the Florida Fish and Wildlife Conservation Commission, Tall Timbers Research Station, The Nature Conservancy, Florida Natural Areas Inventory, and the U.S. Geological Survey. The CCP was also circulated through the Florida State Clearinghouse to 10 state, regional, and local governments. The clearinghouse agencies review documents pursuant to Presidential Executive Order 12372, Gubernatorial Executive Order 95-359, the Coastal Zone Management Act, and NEPA.

This land protection plan for the proposed expansion of St. Marks NWR will also be circulated through the Florida State Clearinghouse for review and comment.

F. FISH AND WILDLIFE SERVICE LAND ACQUISITION POLICY

The Service acquires lands and interests in lands, such as easements, and management rights in lands through leases or cooperative agreements, consistent with legislation or other congressional guidelines and executive orders, for the conservation of fish and wildlife and to provide wildlife-dependent public use for recreational and educational purposes. These lands include national wildlife refuges, national fish hatcheries, research stations, and other areas.

The Service's policy is to acquire land from willing sellers, and only when other protective means, such as local zoning restrictions or regulations are not appropriate, available, or effective. When land is needed to achieve fish and wildlife conservation objectives, the Service seeks to acquire the minimum interest necessary to reach those objectives. If fee title is required, the Service gives full consideration to extended use reservations, exchanges, or other alternatives that will lessen the impact on the owner and the community. Donations of desired lands or interests are encouraged.

The Service, like all federal agencies, has the power of eminent domain, which allows the use of condemnation to acquire lands and interest in lands for the public good. This power, however, requires congressional approval and is seldom used. The Service usually acquires lands from willing sellers. In all fee title acquisition cases, the Service is required by law to offer 100 percent of the property's appraised market value, as set out in an approved appraisal that meets professional standards and federal requirements.

II. ALTERNATIVES INCLUDING THE PROPOSED ACTION

In determining how to achieve the fish and wildlife habitat protection goals for the project lands and waters identified in this document, the Service considered and evaluated three alternatives. These are:

A. ALTERNATIVE 1: NO ACTION

This is the "status quo" alternative. Under this alternative, the Service would not acquire any of the lands proposed for the expansion of the refuge. The proposed project lands would remain in private ownership and current land uses would continue. Protection of the fish and wildlife habitats and natural resource values of these lands would be contingent upon the enforcement of existing federal, state, and local environmental regulations (the Clean Water Act, state water quality and pollution laws, etc.), and the discretion of the private landowners.

B. ALTERNATIVE 2: PROTECTION AND MANAGEMENT OF UP TO 35,295 ACRES BY THE FISH AND WILDLIFE SERVICE (PROPOSED ALTERNATIVE)

Under this alternative, the Service would acquire up to 35,295 acres of upland pine forests, wetlands, and coastal habitats for protection and management as part of St. Marks NWR (Figure 2). These areas would be included in the approved acquisition boundary for the refuge. This is the proposed alternative, which provides the maximum potential to manage for flatwoods salamanders, red-cockaded woodpeckers, wintering waterfowl, shorebirds, wading birds, marshbirds, neotropical migratory birds, Florida black bears, rare plants, and other wildlife.

The acquisition methods that could be used by the Service under this alternative are described as follows:

1. LEASES AND COOPERATIVE AGREEMENTS

Potentially, the Service can protect and manage habitat through leases and cooperative agreements. Management control on privately owned lands could be obtained by entering into long-term renewable leases or cooperative agreements with the landowners. Short-term leases could be used to protect or manage habitat until more secure land protection could be negotiated.

2. CONSERVATION EASEMENTS

Conservation easements give the Service the opportunity to manage lands for their fish and wildlife habitat values. Such management precludes all other uses that are incompatible with the Service's management objectives. Only land uses that would have minimal or no conflicts with the management objectives are retained by the landowner. In effect, the landowner transfers certain development rights to the Service for management purposes as specified in the easement.

Easements would likely be useful when: (1) most, but not all, of a private landowner's uses are compatible with the Service's management objectives, and (2) the current owner desires to retain ownership of the land and continue compatible uses under the terms set by the Service in the easement.

Land uses that are normally restricted under the terms of a conservation easement include:

- Development rights (agricultural, residential, etc.);
- Alteration of the area's natural topography;
- Uses adversely affecting the area's floral and faunal communities;
- Private hunting and fishing leases;
- Excessive public access and use; and
- Alteration of the natural water regime.

3. *FEE TITLE ACQUISITION*

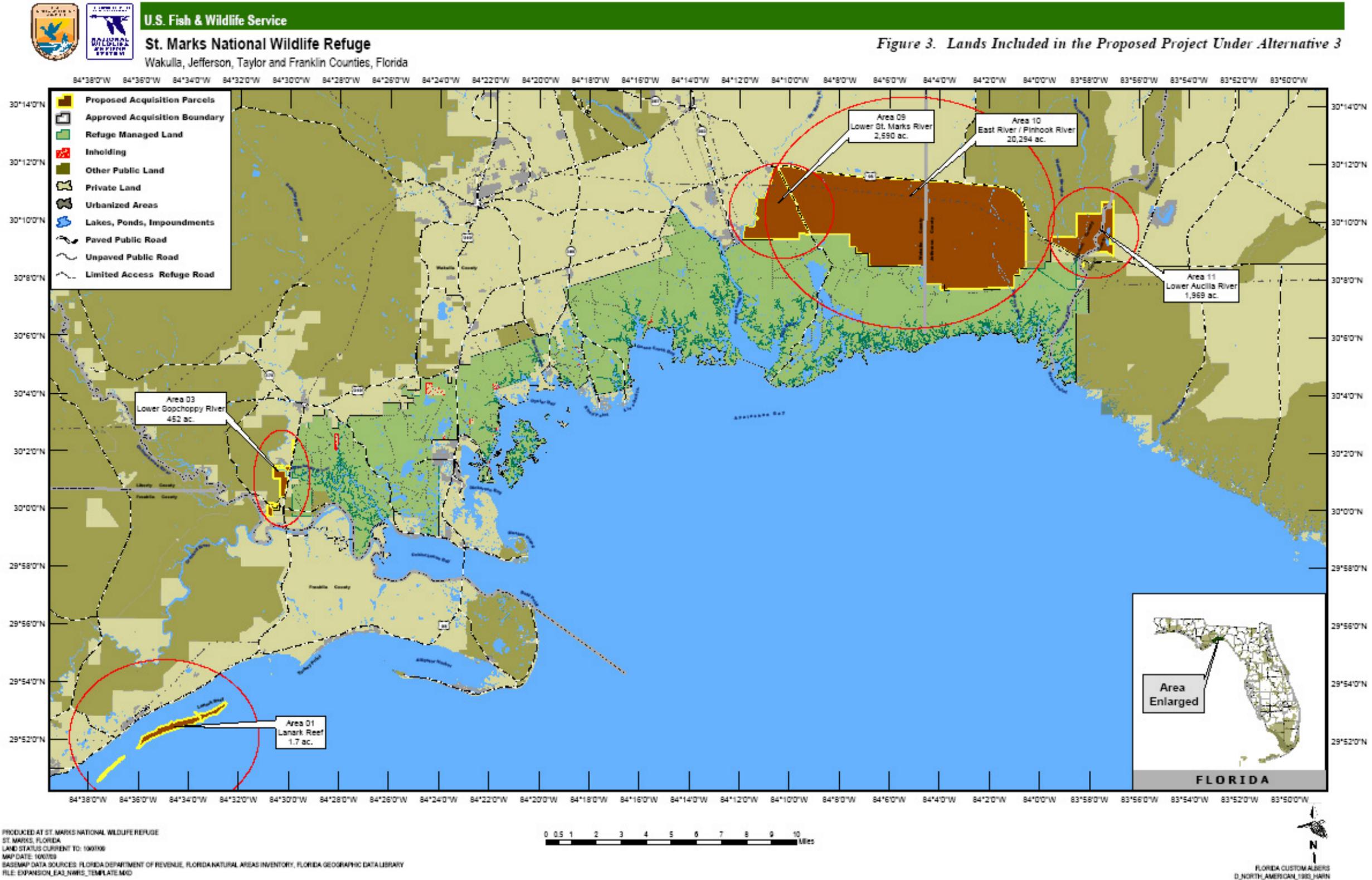
A fee title interest is normally acquired when: (1) the area's fish and wildlife resources require permanent protection not otherwise assured, (2) land is needed for visitor use development, (3) a pending land use could adversely impact the area's resources, or (4) it is the most practical and economical way to assemble small tracts into a manageable unit.

Fee title acquisition conveys all ownership rights to the Federal Government and provides the best assurance of permanent resource protection. A fee title interest may be acquired by donation, exchange, transfer, or purchase.

C. ALTERNATIVE 3: PROTECTION AND MANAGEMENT OF UP TO 25,307 ACRES BY THE FISH AND WILDLIFE SERVICE

Under this alternative, the Service would acquire up to 25,307 acres of upland pine forests, wetlands, and coastal habitats for protection and management as part of St. Marks NWR (Figure 3). These lands are considered to be the most critical that could potentially be protected, including the lower East River Watershed, Lanark Reef, and the lower Aucilla, Wakulla, and Sopchoppy Rivers. The acquisition of these lands would improve the management of the refuge impoundments, protect the regionally significant Lanark Reef bird rookery, and provide the most critical wildlife corridors for Florida black bears and other wildlife. The Service would acquire sufficient interest in the identified lands to prevent conflicting land uses and to manage the areas for their wildlife values. The same acquisition methods as described in Alternative 2 would apply to this alternative.

Figure 3. Lands included in the proposed project under Alternative 3



III. AFFECTED ENVIRONMENT

This section describes the environment that would be affected by the implementation of the alternatives. It is organized under the following impact topics, which includes the area's natural vegetation, land use, fish and wildlife resources, cultural resources, and socioeconomic and sociocultural conditions.

A. GENERAL

The proposed expansion boundary identified in the proposed alternative (Figure 2) is divided into 11 areas. Most areas are adjacent to a narrow strip of coastal lands that now comprise St. Marks NWR. The refuge is divided into three adjacent units. The St. Marks Unit extends from the St. Marks River east to the Aucilla River. Slash pine flatwoods, swamps, manmade impoundments (managed for waterfowl, shorebirds, wading birds, marsh birds, and other wetland wildlife) and freshwater and saltwater marshes characterize this unit. The Wakulla Unit lies between the Wakulla River and the Spring Creek Highway (County Road 365) and consists mostly of hardwood hammocks, swamps, and pine flatwoods. The Panacea Unit is west of the Spring Creek Highway and extends southwesterly to the Ochlockonee River. Tidal marshes, pine flatwoods, and sandhills dotted with freshwater lakes typify this unit. Each unit is unique and contributes to the overall diversity of plants and wildlife that makes St. Marks NWR ecologically significant.

The proposed expansion lands are generally upland of the coastal lands and would provide a buffer to substantial wetlands and seagrass beds. The existing refuge is at the base of two watersheds (Ochlockonee and Aucilla Rivers) that originate in Georgia. Adding upland area to the refuge would help protect these important water basins. Changes to the hydrology or hydroperiod through land or road development could adversely affect the fish and waterfowl populations within the refuge. The proposed expansion also provides additional inland habitat to mitigate the anticipated sea level rise associated with global climate change. These properly restored and managed lands would provide essential habitat to wildlife forced to move inland due to the changing coastline.

B. VEGETATION AND LAND USE

Figures 4a and 4b portray the habitats associated with the proposed expansion boundary. Landcover data is adapted from the Florida Fish and Wildlife Conservation Commission's 2003 Statewide Landsat Imagery-based Vegetation and Land Cover classification system. These habitats include upland pine forest, mixed wetland forest, mixed conifer and hardwood upland, pine plantation, salt marsh, and freshwater marsh. Table 1 shows the amount of each habitat type (in acres) for the expansion areas. These community types are described as follows.

Native pinelands are comprised of longleaf pine and former longleaf pine-dominated forests and the seasonally ponded isolated wetlands those forests contain. This habitat is generally characterized by an open overstory of pine trees that contains little midstory vegetation and a dense, herbaceous ground cover that is maintained by frequent fire. Pine forest supports a unique assemblage of resident and neotropical migratory birds, reptiles, amphibians, and plants, as well as numerous other species, which regularly or occasionally use these habitats. Native pine forests and encompassed wetlands provide significant breeding grounds for amphibians and habitat for several imperiled species, including frosted flatwoods

Table 1. Summary of habitat types (by acres) within the proposed expansion area

HABITAT TYPES	PROPOSED EXPANSION AREAS										
	01	02	03	04	05	06	07	08	09	10	11
BARE SOIL/ CLEARCUT	0	201	16	9	78	21	88	207	183	70	5
BAY SWAMP	0	14	6	0	9	0	0	11	75	200	0
BEACH/STRAND	46	0	0	0	0	0	0	0	0	0	0
COASTAL STRAND	1	0	0	0	0	0	0	0	0	0	0
CYPRESS SWAMP	0	46	7	26	75	20	20	102	166	5595	37
EXTRACTIVE/MINING	0	0	0	8	3	0	31	11	0	0	123
FRESHWATER MARSH/WET PRARIE	0	47	2	1	27	1	1	14	8	247	1
HARDWOOD HAMMOCK	0	2	1	20	21	71	575	158	30	43	5
HARDWOOD SWAMP	0	242	81	18	246	63	27	113	104	1372	1478
HIGH IMPACT URBAN	0	26	24	78	73	6	109	161	8	49	5
HYDRIC HAMMOCK	0	0	0	0	0	0	0	0	0	29	0
IMPROVED PASTURE	0	0	0	0	0	52	21	0	0	0	0
LOW IMPACT URBAN	0	0	1	2	15	0	93	177	17	231	14
MIXED HARDWOOD- PINE	0	0	0	0	0	0	0	0	0	0	0
MIXED WETLAND FOREST	0	110	26	31	114	53	40	167	129	2350	102
OPEN WATER	572	69	5	44	12	2	8	17	25	21	165
PINELANDS	0	788	219	117	694	164	460	774	1468	9210	6
SALT MARSH	22	380	0	37	0	0	0	9	0	0	0
SANDHILL	0	0	0	1	34	49	95	0	0	0	0
SHRUB/BRUSHLAND	0	239	11	11	198	34	190	411	345	659	3
SHRUB SWAMP	2	39	34	17	53	0	0	0	12	183	0
TIDAL FLATS	7	0	0	0	0	0	0	0	0	0	0

Figure 4a. Land cover classification of lands in the proposed project under Alternative 2 (Map 1)

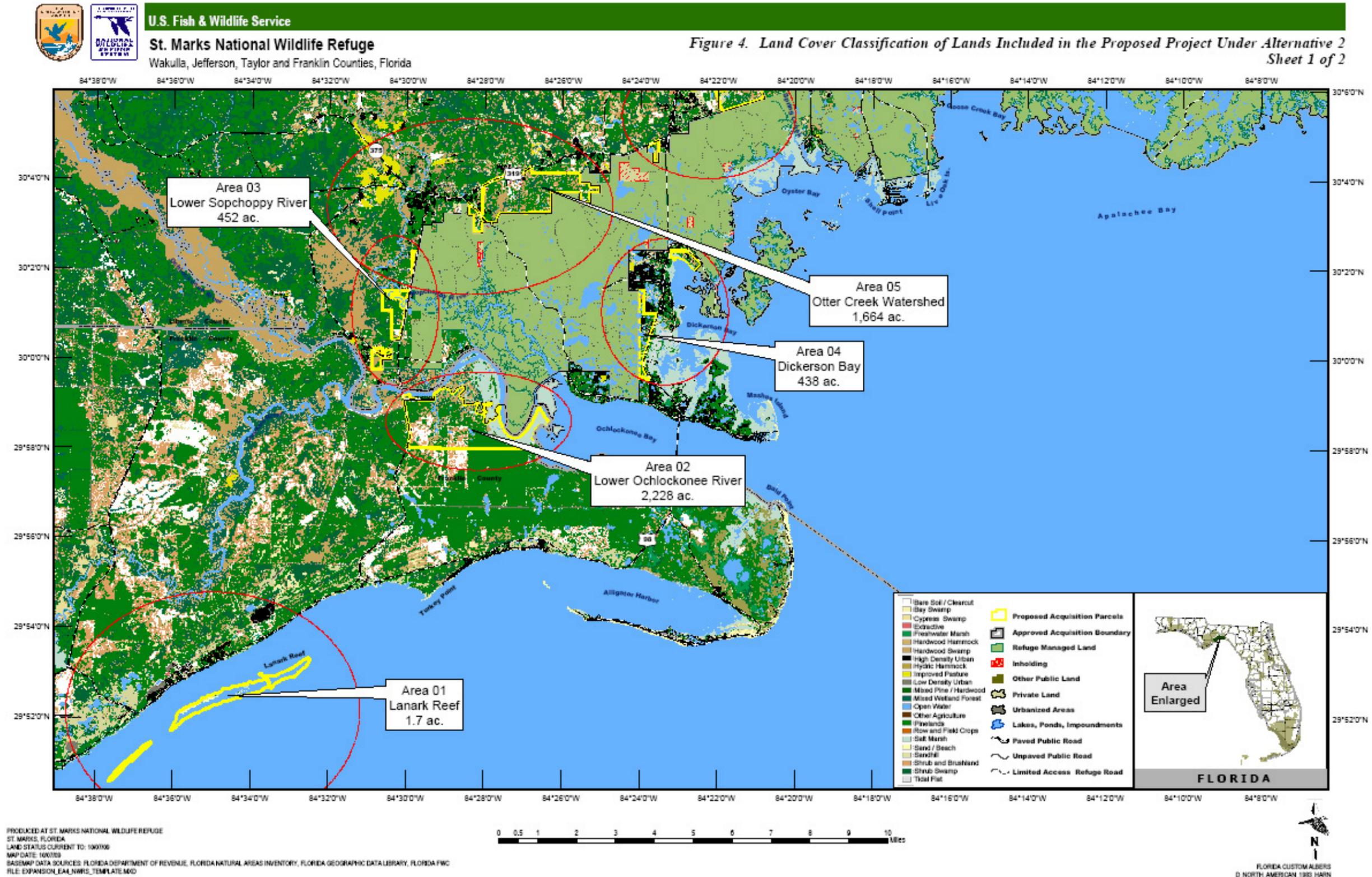
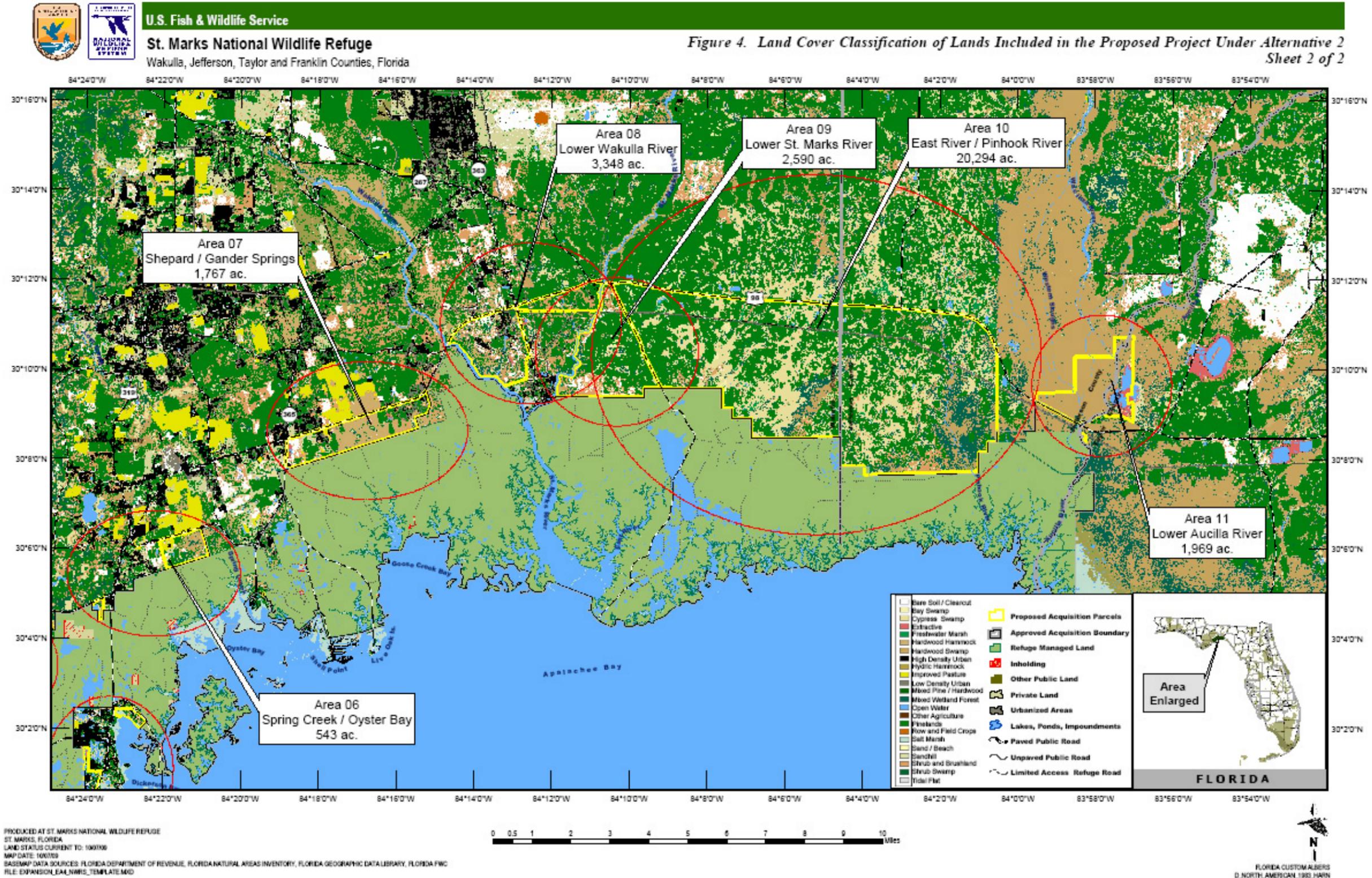


Figure 4b. Land cover classification of lands in the proposed project under Alternative 2 (Map 2)



salamanders, wood storks, red-cockaded woodpeckers (RCW), swallow-tailed kites, Florida pine snakes, gopher tortoises, Henslow sparrows, Bachman's sparrows, Sherman's fox squirrels, and Florida black bears. Very little of the proposed lands in this expansion proposal are in this condition. Much of the former longleaf pine forests are now in slash pine or loblolly pine plantations for timber production. With acquisition by the refuge, these lands would be a focal point for the development of longleaf pine community restoration under the Land Management Research and Demonstration Program and would showcase the Service's Strategic Habitat Conservation Initiative. Area 10 contains at least six former RCW territories and sufficient foraging area to support reintroduction of RCWs with proper restoration and management. Addition of this area would help the refuge meet its conservation objectives for this species.

Mixed wetland forests (palustrine forest) include a variety of wetland types—cypress domes or strands, bay swamps, bottomland hardwoods and river swamps. Cypress and bay swamps occur along lake margins, rivers, and depressions within other communities, such as flatwoods. Bottomland hardwoods occur within the flood plain of river systems and have highly diverse vegetative communities. Wetland forests provide cover and food sources for many species, including black bears, bobcats, deer, owls, turkeys, snakes, frogs, swallow-tailed kites, and wading birds. These forests serve a critical role within the ecosystem or watershed by receiving, purifying, and regulating flood water. **Mixed hardwood-pine** upland is a blend of pine (mostly slash) and hardwoods, such as large oaks, sweetgum, hickory, magnolia, and dogwood.

Tidal salt marshes or emergent wetlands are primarily dominated by black needlerush, smooth cordgrass, or saltgrass. These marshes provide nutrients for a variety of animal life and they provide nursery habitat for juvenile marine species. Salt marshes stabilize and protect shorelines.

Freshwater (or palustrine) **marsh** includes all nontidal wetlands dominated by persistent emergents, usually a single species. They are generally located on low flatlands associated with the drainage systems of rivers, creeks, or inland depression. They provide habitat and feeding areas for wading birds, rails, Gulf Coast salt marsh snakes, seaside sparrows, other salt marsh sparrows, and wintering areas for waterfowl.

In addition to the above widespread habitats, there is a small parcel of coastal barrier islands known as Lanark Reef that is comprised of low shrubs, salt-tolerant grasses, sand flats, and beach that provides significant nesting habitat for brown pelicans, black skimmers, American oystercatchers, least terns, royal terns, and other shorebirds. The island group also provides important wintering habitat for piping plovers, snowy plovers, and a wide variety of other shorebirds.

RARE PLANTS

Rare plants are tracked by the Florida Natural Areas Inventory (FNAI). A search of FNAI's plant occurrence database (<http://lotmaps.freac.fsu.edu/bio05/index.html>) (www.fnai.org) was conducted for each square mile land section within the proposed acquisition areas. The following occurrence table (Table 2) depicts the results of these records searches and includes only documented and likely occurrences of rare plant species. Species listed as "potential" within the matrix were not included. While no federally listed species are presumed to be present within the proposed acquisition areas, each species listed has global and state rankings of G2 or G3 and S2 or S3.

Table 2. Documented and likely occurrences of rare plant species

Area	Documented Rare Plant Species	Global/State Rank	Fed/State Status	Likely rare plant species	Global/State Rank	Fed/State Status
01	NONE			NONE		
02	<i>Baptisia simplicifolia</i> Scare-weed	G3/S3	NONE/LT	NONE		
03	NONE			<i>Liatris provincialis</i> Godfrey's blazing star	G2/S2	NONE/LE
04	<i>Pityopsis flexuosa</i> Zigzag Silkgrass	G3/S3	NONE/LE	NONE		
	<i>Liatris provincialis</i> Godfrey's blazing star	G2/S2	NONE/LE			
	<i>Baptisia simplicifolia</i> Scare-weed	G3/S3	NONE/LT			
05	<i>Liatris provincialis</i> Godfrey's blazing star	G2/S2	NONE/LE	NONE		
06	NONE			NONE		
07	<i>Schisandra glabra</i> Bay Star-vine	G3/S2	NONE/LE	NONE		
	<i>Brickellia cordifolia</i> Flyr's Brickell-bush	G2G3/S2	NONE/LE			
	<i>Leitneria floridana</i> Corkwood	G3/S3	NONE/LT			
08	<i>Rhynchospora thornei</i> Thorne's Beaksedge	G3/S1S2	NONE/NONE	NONE		
	<i>Ruellia noctiflora</i> White-flowered Wild Petunia	G2/S2	NONE/LE			
09	<i>Calamovilfa curtissii</i> Curtiss' Sandgrass	G3/S3	NONE/LT	<i>Ruellia noctiflora</i> White-flowered Wild Petunia	G2/S2	NONE/LE

Area	Documented Rare Plant Species	Global/State Rank	Fed/State Status	Likely rare plant species	Global/State Rank	Fed/State Status
10	<i>Leitneria floridana</i> Corkwood	G3/S3	NONE/LT	NONE		
	<i>Carex chapmanii</i> Chapman's Sedge	G3/S3	NONE/LE			
10	<i>Salix floridana</i> Florida willow	G2/S2	NONE/LE	NONE		
	<i>Gentiana pennelliana</i> Wiregrass Gentran	G3/S3	NONE/LE			
11	<i>Carex chapmanii</i> Chapman's Sedge	G3/S3	NONE/LE	NONE		
	<i>Leitneria floridana</i> Corkwood	G3/S3	NONE/LT			

G2 = Imperiled globally because of rarity (6 to 20 occurrences or less than 3000 individuals) or because of vulnerability to extinction due to some natural or man-made factor.

G3 = Either very rare and local throughout its range (21-100 occurrences or less than 10,000 individuals) or found locally in a restricted range or vulnerable to extinction from other factors.

S2 = Imperiled in Florida because of rarity (6 to 20 occurrences or less than 3000 individuals) or because of vulnerability to extinction due to some natural or man-made factor.

S3 = Either very rare and local in Florida (21-100 occurrences or less than 10,000 individuals) or found locally in a restricted range or vulnerable to extinction from other factors.

LT = Listed as Threatened

LE = Listed as Endangered

C. WILDLIFE RESOURCES

The Florida Panhandle, where St. Marks NWR is located, is rated as one of the nation's biodiversity "hotspots" by The Nature Conservancy due to its habitat for more than 50 imperiled species and hundreds of threatened species. St. Marks NWR protects and enhances habitats for 434 vertebrate species, excluding fish. It is important habitat for six federally listed endangered animal species (red-cockaded woodpecker, wood stork, Florida manatee, and Kemp's ridley, leatherback, and green sea turtles), and four species on the federal threatened list (piping plover, loggerhead sea turtle, Gulf sturgeon, and frosted flatwoods salamander). Additionally, St. Marks NWR provides habitat for three vertebrate species classified as threatened or endangered by the State of Florida as of June 2009 (Florida black bear, least tern, and gopher tortoise). All of these listed species are known to occur or have once occurred in the proposed expansion areas and adjacent waters.

BLACK BEAR

The Florida black bear is one of only two large carnivore wildlife species remaining in Florida. The wide ranging nature of the black bear, its habitat characteristics, and large home range identifies it as an “umbrella species.” Umbrella species are species at the top of food chains with large home ranges. By protecting the habitat needs of these species, a large number of other species are protected as well.

Figure 5 depicts a Florida Black Bear Potential Habitat Model created by Florida Fish and Wildlife Conservation Commission to identify gaps in the existing statewide system of wildlife conservation areas, and to inform ongoing land acquisition and conservation efforts. The Florida Fish and Wildlife Conservation Commission modeled areas of habitat that are essential to sustain a minimum viable population for focal species of terrestrial vertebrates that were not adequately protected on existing conservation lands.

The model was based on Strategic Habitat Conservation Areas (SHCAs) in a report by Cox et al. (1994), “Closing the Gaps in Florida’s Wildlife Habitat Conservation System”. Habitat scores were based on proximity to existing conservation areas, size of roadless areas, diversity of cover types, and the presence of specific cover types. For the black bear potential habitat model data layer, the range of values was from 1-10, with 10 being the most favorable habitat for black bears. The Apalachicola SCHA for the Florida Black Bear includes all or portions of proposed Acquisition Areas 2-11 and provides important habitat for five imperiled bird species (great egret, osprey, American swallow-tailed kite, southern bald eagle, Bachman’s sparrow), eight reptiles and amphibians (including the frosted flatwoods salamander, Florida pine snake and eastern indigo snake), three fish and twenty plant species.

The historic range of black bears included all forested areas of North America. In the southeastern United States, the species was eliminated from 90 percent of its former habitat, 83 percent in Florida. Populations in Florida have dropped from 11,000 to between 2,000 to 3,000 animals in several distinct core areas. St. Marks NWR and its environs are considered part of the thriving population centered in or near the Apalachicola National Forest. This is one of the largest managed areas within Florida, and it is an attractive region for bears since it has few major roads and few human inhabitants.

The “Closing the Gaps” report concludes that 10 interconnected habitat areas are needed for a sustainable bear population in Florida. It states, “Although current conservation areas in this region satisfy our minimum recommendations for a single managed area, conservation of additional habitat may provide greater security for the *population statewide*, since it will be impossible to secure sufficient habitat for a total of 10 managed populations.” A loss of habitat north of the refuge would impact the Apalachicola bear population and potentially the Chassahowitzka and Ocala populations in peninsular Florida. It is believed that long-term protection of habitats in the Big Bend region has the potential to provide a landscape link between the Apalachicola populations and these small and isolated populations. This report considers the area around the Aucilla River (Areas 9, 10, and 11) to be the state’s third highest priority for protection as shown in Figure 6. Areas 2, 3, 5, 6, 7, and 8 also support black bears.

Figure 5. St. Marks NWR proposed expansion: Florida Fish and Wildlife Conservation Commission black bear habitat conservation priorities.

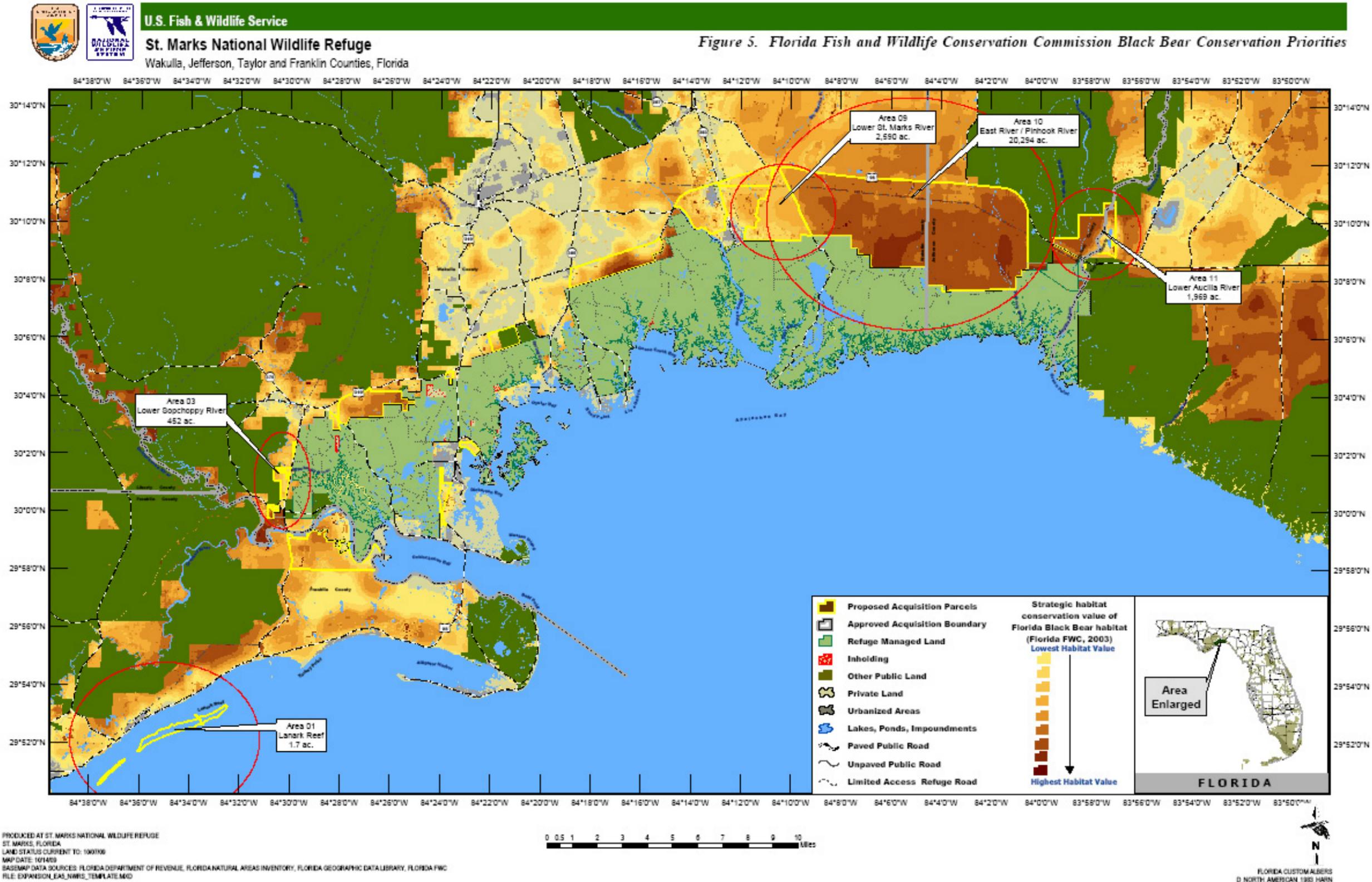
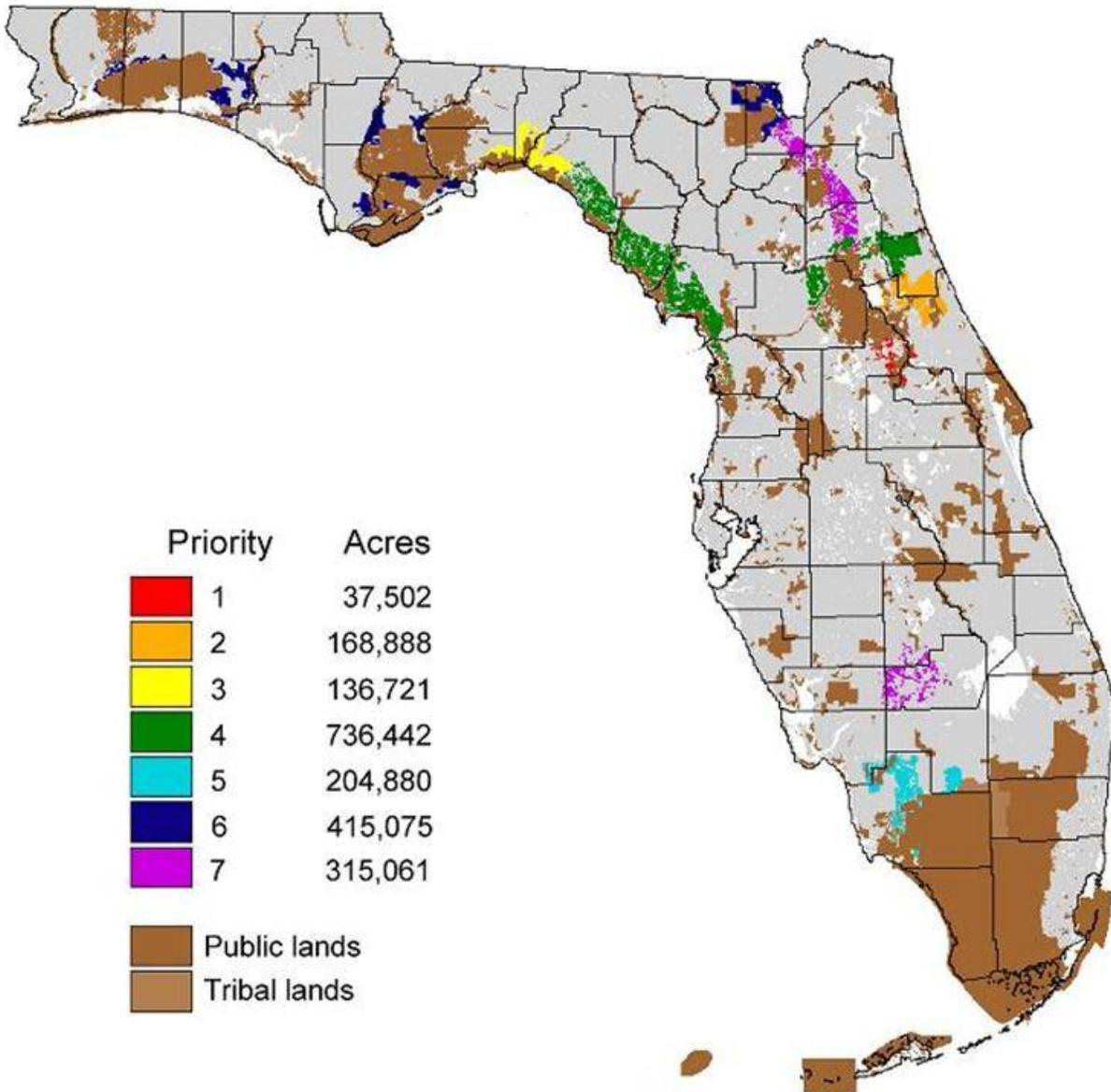


Figure 6. Florida Forever Black Bear Working Group Land Acquisition Priorities for Florida Black Bear.

Florida Forever Black Bear Work Group Land Acquisition Priorities for Florida Black Bear



Land acquisition priorities for Florida black bear based on Strategic Habitat Conservation Areas and potential habitat maps of Cox et al. (1994) and ranked by workshop experts. The total area included is 2,014,569 acres.

AMERICAN SWALLOW-TAILED KITE

The black bear habitat near the Wacissa and Aucilla Rivers (Areas 10 and 11) is also part of the Strategic Habitat Conservation Area recommended for the American swallow-tailed kite. The St. Marks NWR hosts 274 species of birds, including several listed species, such as the kite, which is a state-listed Species of Special Concern. Among the migratory nongame birds of management concern within the United States, the Service considers the American swallow-tailed kite to be its highest priority for conservation. Nesting and foraging habitats for kites include pine forests and savannas, cypress swamps, hardwood hammocks, and freshwater and saltwater marshes. Kites require a mosaic of communities with tall, accessible trees for nesting and open areas for foraging. Nesting swallow-tailed kites have been documented in Area 10 and likely occur in many of the other inland tracts. As with black bears, large areas of heterogeneous habitat are necessary to ensure population recovery.

RED-COCKADED WOODPECKER

Another protected species occurring in the refuge is the red-cockaded woodpecker, which has been federally listed as endangered since 1970. While once common throughout southeastern mature pine forests, its range and population have been reduced through habitat loss. Red-cockaded woodpeckers roost in cavities of live southern pines, such as longleaf, loblolly, and slash pines. Large land areas over 1,000 acres with mature pine stands offer the best chance for sustaining significant populations. In the early 1980s, at least six red-cockaded woodpecker clusters were present on St. Joe Paper Company land north of the refuge (Area 10). Since much of these lands were clear-cut, some of the woodpeckers were translocated to St. Marks NWR between 1984 and 1986. Since that time, through intensive management, the St. Marks NWR population has quadrupled, while the population on the former timber company lands has been eliminated. Acquisition of this land would provide for the future restoration of native pineland and the long-range, re-establishment of red-cockaded woodpecker clusters that would provide a critical connection between the Central Florida Panhandle Primary Core Population and the Red Hills population to the north and east of the refuge.

WOOD STORK

Of the 17 species of storks worldwide, only the wood stork occurs within the United States. The breeding range is between the southeastern United States through Central and much of South America. Historically, within the United States, wood storks nested in all coastal states between Texas and South Carolina, but they now occur only throughout Florida, Georgia, and coastal South Carolina. Populations that once numbered 15,000 to 20,000 pairs in the 1930s had declined to about 6,000 pairs by the mid-90s and are believed to contain about 8,000 pairs in recent years. Listed as endangered since 1984, one of the major causes of its decline is the loss of feeding habitat. Wetland draining and hydroperiod alteration lowered the availability of fish for the wood stork and other wading birds that use interior wetlands. Wood storks use both freshwater and estuarine wetlands for nesting, feeding, and roosting. They seasonally use shallow and/or ephemeral ponds, particularly near the coast. Areas 2, 3, 4, 10 and 11 have the best habitat for wood storks among the proposed expansion lands.

FROSTED FLATWOODS SALAMANDER

Like the black bear, the range of the frosted flatwoods salamander has been greatly reduced. While the historic range of the salamander was once the lower southeastern coastal plain, it is now is severely fragmented. There are 26 known populations restricted to north Florida, south Georgia, and South Carolina. The Florida Fish and Wildlife Conservation Commission states that 129 populations are needed to maintain the species in perpetuity. In a 1996 report, Dr. Bruce Means estimated a decline of 98 percent of the resident flatwoods salamander metapopulation on private lands adjacent to the Apalachicola National Forest following bedding and conversion of the area to slash pine plantation. Since plantation forestry and fire suppression are two of the greatest threats to frosted flatwoods salamander habitat in Florida, public lands management provides the best opportunity for the continued existence of this species. Its habitat—mesic, seasonally wet pine flatwoods and pine savanna communities with an open canopy of longleaf or slash pine and a native groundcover often dominated by wiregrass—are among the most imperiled in Florida. The Service listed the flatwoods salamander as threatened in 1999. Based on its declining habitat, the State of Florida listed it as a species of special concern in 2001. There are three frosted flatwoods salamander populations on the St. Marks Unit of the refuge, at least two of which extend north into the proposed expansion area to the north (Areas 9 and 10, Figure 7). Addition of these areas would improve the conservation status of this species on the refuge. In addition, there are at least two small, isolated populations in Area 10, though this is likely an artifact of incomplete surveys rather than reflection of actual isolation. In 2008, the Service proposed listing the frosted flatwoods salamander breeding ponds and surrounding habitat in the proposed expansion area as Critical Habitat for the recovery of the species. Final action is pending. Acquisition and management of these lands would permanently protect and enhance both proposed critical habitat and adjacent high-quality habitat for this species where it likely exists.

WATERFOWL, SHOREBIRDS, AND OTHER MIGRATORY BIRDS

Wintering waterfowl use both Apalachee Bay and the 2,000 acres of impoundments for feeding and resting. The refuge is a significant nesting area for the southern bald eagle, with about 20 nests within its lands. It is also a major stopover for neotropical migratory songbirds and shorebirds during their migrations. Eighty-six bird species, excluding transients, use longleaf pine-wiregrass habitats, including 17 species at St. Marks NWR that are listed in the Partners-in-Flight Initiative as a priority species. All proposed expansion areas provide important migratory bird habitat.

The managed impoundments, which provide habitat for thousands of waterfowl, shorebirds, waterbirds, and other wetland wildlife, rely on water from the East River watershed. Protection and restoration of this watershed in Areas 9 and 10 are critical to the long-term function of this centerpiece wildlife management program of the refuge.

Lanark Reef in Franklin County (Area 1) is one of the most significant nesting sites for brown pelicans, black skimmers, American oystercatchers, least terns, and royal terns in this region of Florida.

D. FISHERY RESOURCES

The fishery resources of the impoundments would be enhanced by the acquisition and hydrological restoration of the lower East River Watershed. Currently the sporadic water flows created by the roadwork and bedding from industrial forestry operations in the watershed north of the refuge has reduced water flows during dry periods and increased the likelihood of low water levels, low dissolved oxygen, and fish die-offs. Restoration of a more natural hydroperiod should extend the timing of water flows and reduce the number of fish die-offs.

In addition to the benefits to the impoundments, the fisheries of the Aucilla, St Marks, Wakulla, Sopchoppy, and Ochlockonee Rivers, as well as the fishery of Apalachee Bay, would benefit from the protection of lands that currently buffer the rivers and bay from water quality degradation that results from the development to industrial, commercial, or residential use.

E. SOCIOECONOMIC AND SOCIOCULTURAL CONDITIONS

In 2003, there were 39,580,000 visitors to all refuges. An economic impact analysis of the effects of ecotourism on communities surrounding national wildlife refuges highlights the substantial benefits visitors bring to the local economy (Laughland and Caudhill 1997). Ecotourism dollars generated, which included lodging, meals, gasoline, and ancillary purchases, were in the millions.

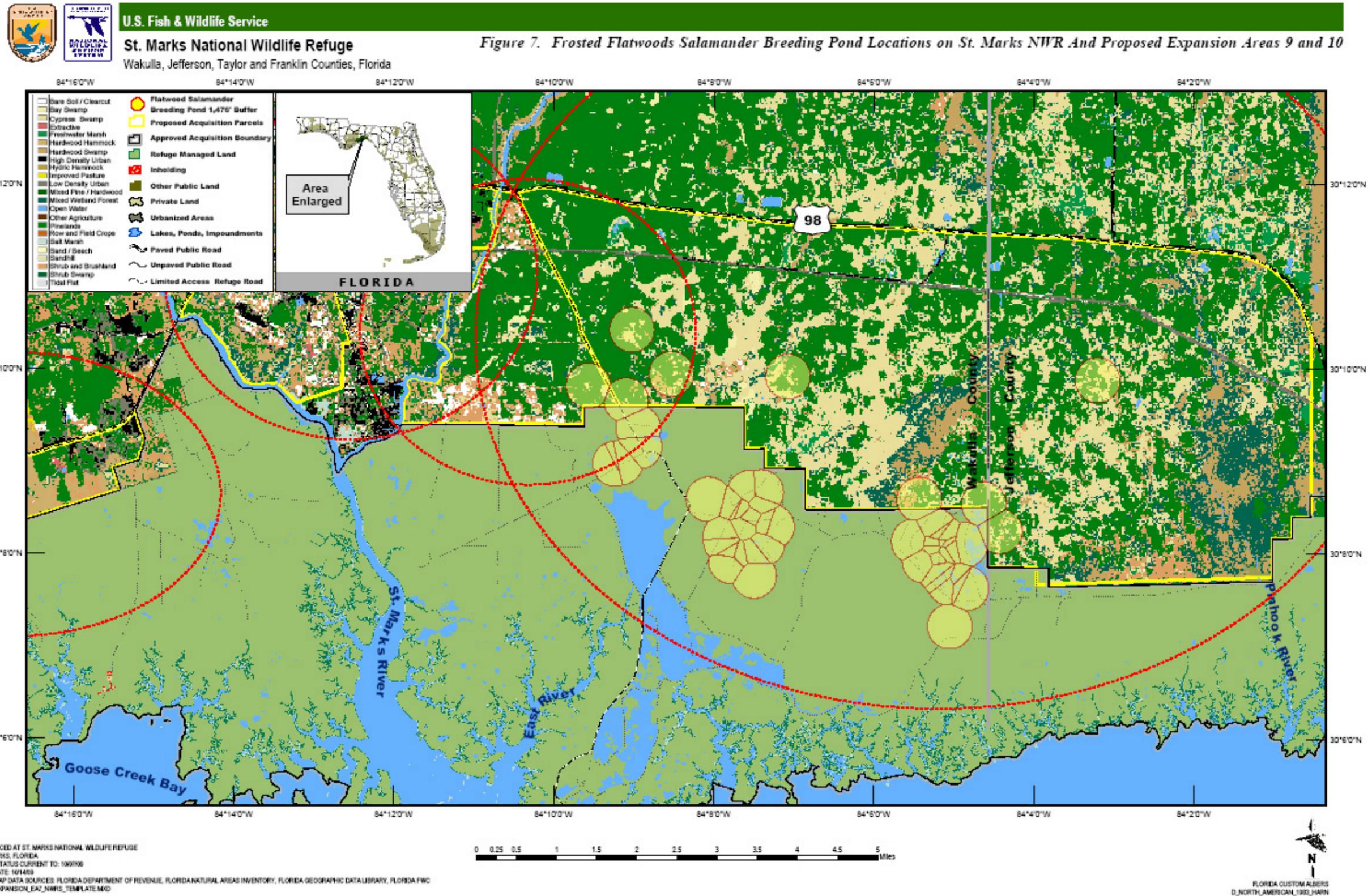
The proposed expansion of the St. Marks NWR would expand educational and recreational opportunities on the refuge and protect aquatic resources of the area that is a major draw for tourism to the Big Bend of Florida and a significant quality of life benefit to local residents. The lands would enhance the development of the Land Management and Research Demonstration Area for the restoration and management of longleaf pine, a national program expected to bring researchers, managers, landowners, and visitors to the area to expand our knowledge of restoration and management techniques. Increased recreational uses of the refuge due to the additional lands include hunting, fishing, hiking, horseback riding, wildlife observation, and photography.

F. CULTURAL RESOURCES

The St. Marks NWR, adjoining lands, and much of the Big Bend Region of Florida is rich in cultural resources dating back to at least the Paleoindian Period (13,000 – 7,900 B.C.). Many cultural sites are known from the refuge and the proposed expansion lands, and no doubt many are yet to be discovered. Section 106 of the National Historic Preservation Act of 1966, as amended, and Section 14 of the Archaeological Resources Protection Act require the Service to evaluate the effects of any of its actions on cultural resources [e.g., historic, architectural, and archaeological that are listed or eligible for listing in the National Register of Historic Places (NRHP)]. In accordance with these regulations, the Service has coordinated the review of this proposal with the Florida State Historic Preservation Office.

The Service believes that the proposed acquisition of lands would have no adverse effect on any known or yet-to-be identified NRHP-eligible cultural resources. However, in the future, if the Service plans or permits any actions that might affect eligible cultural resources, it would carry out appropriate site identifications, evaluations, and protection measures as specified in the regulations and in Service directives and manuals.

Figure 7. Frosted Flatwoods Salamander Breeding Pond Locations on St. Marks NWR and Proposed Expansion Areas 9 and 10



IV. ENVIRONMENTAL CONSEQUENCES

This section analyzes and discusses the potential environmental impacts of the three management alternatives described in Section II.

A. ALTERNATIVE 1: NO ACTION

Under this alternative, the Service would take no action to acquire, protect, and manage any lands to expand the St. Marks NWR.

Future habitat protection under existing laws and regulations may be insufficient to prevent significant degradation of the area's fish and wildlife resource values. Federal executive orders involving the protection of wetlands and floodplains only apply to federal agencies. They do not apply to habitat alterations by non-federal entities, which receive no federal funds.

The primary deterrent against the loss of resource values is the U.S. Army Corps of Engineers (USACE) Section 404 permit program, which is administered under the authority of the Clean Water Act. This program requires permits for most types of work in wetlands. Most of the wetlands in the project area qualify for protection under this program. In addition, the State of Florida has regulatory authority over the area and would not permit any developments that would violate the state's water quality standards.

However, there is no assurance that the protection offered by these regulations would be consistent with protection of the area's fish and wildlife resources. The regulatory programs are designed to accomplish different objectives. In addition, these programs are subject to changes in the law and to varying definitions and interpretations, often to the detriment of wetlands. The USACE's regulatory authority provides for the issuance of Section 10 and/or Section 404 permits when it is not contrary to the public interest to do so and provided other conditions are met. Fish and wildlife conservation is only one of several public interest factors that are considered in permit issuance decisions. If fish and wildlife conservation is outweighed by other factors, permits that would alter the wetlands in the proposed refuge unit area could be issued.

The desired fish and wildlife protection objectives, therefore, cannot be achieved to any degree under this alternative. Specifically, implementation of "No Action" would adversely impact the area's valuable fish, waterfowl, and wildlife habitats. The management of the impoundments would continue to be adversely impacted by the altered hydrology of the East River Watershed and additional adverse impacts could be expected in the future. Wildlife habitats bordering the refuge would continue to be lost to development and important bear and other wildlife corridors reduced or eliminated. Management of current refuge lands would also be compromised in the future through limitations on prescribed burning resulting from increased development on the refuge boundaries.

B. ALTERNATIVE 2: PROTECTION AND MANAGEMENT OF UP TO 35,295 ACRES BY THE FISH AND WILDLIFE SERVICE (PROPOSED ALTERNATIVE)

Under this alternative, the Service would acquire up to 35,295 acres of upland pine forests, wetlands, and coastal habitats as part of St. Marks NWR. The land protection priorities and proposed methods of acquisition are summarized in Section VI.

The purpose of the proposed project would be to protect and enhance through management populations of flatwoods salamanders, red-cockaded woodpeckers, wintering waterfowl, shorebirds, wading birds, marshbirds, neotropical migratory birds, Florida black bears, rare plants, and other wildlife.

Based on the nature of the proposal, the location of the site and the current land use, the proposed alternative would not have any significant effects on the quality of the human environment, including public health and safety. Further, because the purpose of the proposal is to protect, maintain, and where possible, enhance the natural habitat of the lands within the proposed acquisition area, the proposal is not expected to have any significant adverse effects on the area's wetlands and floodplains, pursuant to Executive Orders 11990 and 11988.

Implementation of the proposed alternative would not involve any highly uncertain, unique, unknown, or controversial effects on the human environment. The proposed action would not establish a precedent for future actions with significant effects, nor would it represent a decision in principle about a future consideration. No cumulatively significant impacts on the environment would be anticipated.

In addition, the proposal would not significantly affect any unique characteristic of the geographic area, such as historical or cultural resources, wild and scenic rivers, or ecologically critical areas. The proposal would not significantly affect any site listed in or eligible for listing in the National Register of Historic Places, nor would it cause loss or destruction of significant scientific, cultural, or historic resources. The area's cultural resources would be protected under the regulations of the National Historic Preservation Act of 1966, as amended, the Archaeological Resources Protection Act, and the Advisory Council on Historic Preservation (36 CFR 800). The Florida State Historic Preservation Office would be contacted whenever any future management activities have the potential to affect cultural resource sites.

All tracts acquired by the Service in fee title would be removed from local real estate tax rolls because federal government agencies are not required to pay state or local taxes. However, the Service makes annual payments to local governments in lieu of real estate taxes, as required by the Refuge Revenue Sharing Act (Public Law 95-469). Payment for acquired land is computed on whichever of the following formulas is greatest: (1) three-fourths of 1 percent of the fair market value of the lands acquired in fee title; (2) 25 percent of the net refuge receipts collected; or (3) 75 cents per acre of the lands acquired in fee title. The estimated additional annual revenue-sharing payment that would be made to Wakulla County, depending on the amount of acreage acquired in fee title, would be up to \$557,850 at the fully funded level of the act. For Jefferson County, the annual payment would be up to \$57,935. For Taylor County, the payment is estimated to be up to \$12,340. For Franklin County, the payment is estimated to be up to \$1,331.

No actions would be taken that would lead to a violation of federal, state, or local laws imposed for the protection of the environment.

C. ALTERNATIVE 3: PROTECTION AND MANAGEMENT OF 25,307 ACRES BY THE FISH AND WILDLIFE SERVICE

Under this alternative, the Service would acquire up to 25,307 acres of upland pine forests, wetlands, and coastal habitats as part of St. Marks NWR. Under this alternative, the most critical of the lands could potentially be protected, including the lower East River Watershed, Lanark Reef, and lower Aucilla, Wakulla, and Sopchoppy Rivers. Other lands bordering the Wakulla and Panacea Units, lower Ochlockonee River, and between the St. Marks and Wakulla Rivers (Figure 2 – Areas 2, 4, 5, 6, 7, and 8) would not be eligible to receive protection or management by the Service.

This alternative is not recommended because opportunities may arise in those areas precluded by this alternative to protect and manage lands that provide valuable wildlife habitat (including red-cockaded woodpecker habitat), wetland and coastal buffers, wildlife corridors, and improve management capabilities (particularly prescribed burning) by moving refuge boundaries to roads and other more readily defendable locations.

V. INFORMATION ON PREPARERS

This document was prepared by St. Marks NWR staff - Joe Reinman, Wildlife Biologist; Michael Keys, Wildlife Biologist; and Terry Peacock, Refuge Manager; under the direction of James Burnett, North Florida NWR Complex Manager.

VI. SUMMARY OF PROPOSED ACTION

The Service's proposed alternative (Alternative 2) would result in the acquisition of up to 35,295 acres of wildlife habitat as an expansion of St. Marks NWR, through a combination of fee title purchases from willing sellers and less-than-fee interests (e.g., conservation easements and cooperative agreements) from willing sellers. The Service believes these are the minimum interests necessary to conserve and protect the fish and wildlife resources in the proposed area.

The private property has been prioritized for acquisition using the following criteria:

- Biological significance;
- Existing and potential threats;
- Significance of the area to refuge management and administration; and
- Existing commitments to purchase or protect land.

Three categories of land acquisition have been established, with the highest priority being the Priority I lands. A description of the lands within each of the three priority groups is given below. Table 3 summarizes the Service's land protection priorities and proposed methods of acquisition. Figure 8 shows the locations of the project areas and their respective priority groups.

Priority Group I

Priority Group I consists of the most critical of the lands that could potentially be protected, including the lower East River Watershed, Lanark Reef, and the lower Aucilla, Wakulla, and Sopchoppy Rivers. Within this group are the lands that would improve the management of the refuge impoundments, protect the regionally significant Lanark Reef bird rookery, and provide the most critical wildlife corridors for Florida black bears and other wildlife.

Priority Group II

Priority Group II includes lands that could provide valuable wildlife habitat (including red-cockaded woodpecker habitat), wetland and coastal buffers, wildlife corridors, and improve management capabilities (particularly prescribed burning) by moving refuge boundaries to roads and other more readily defendable locations.

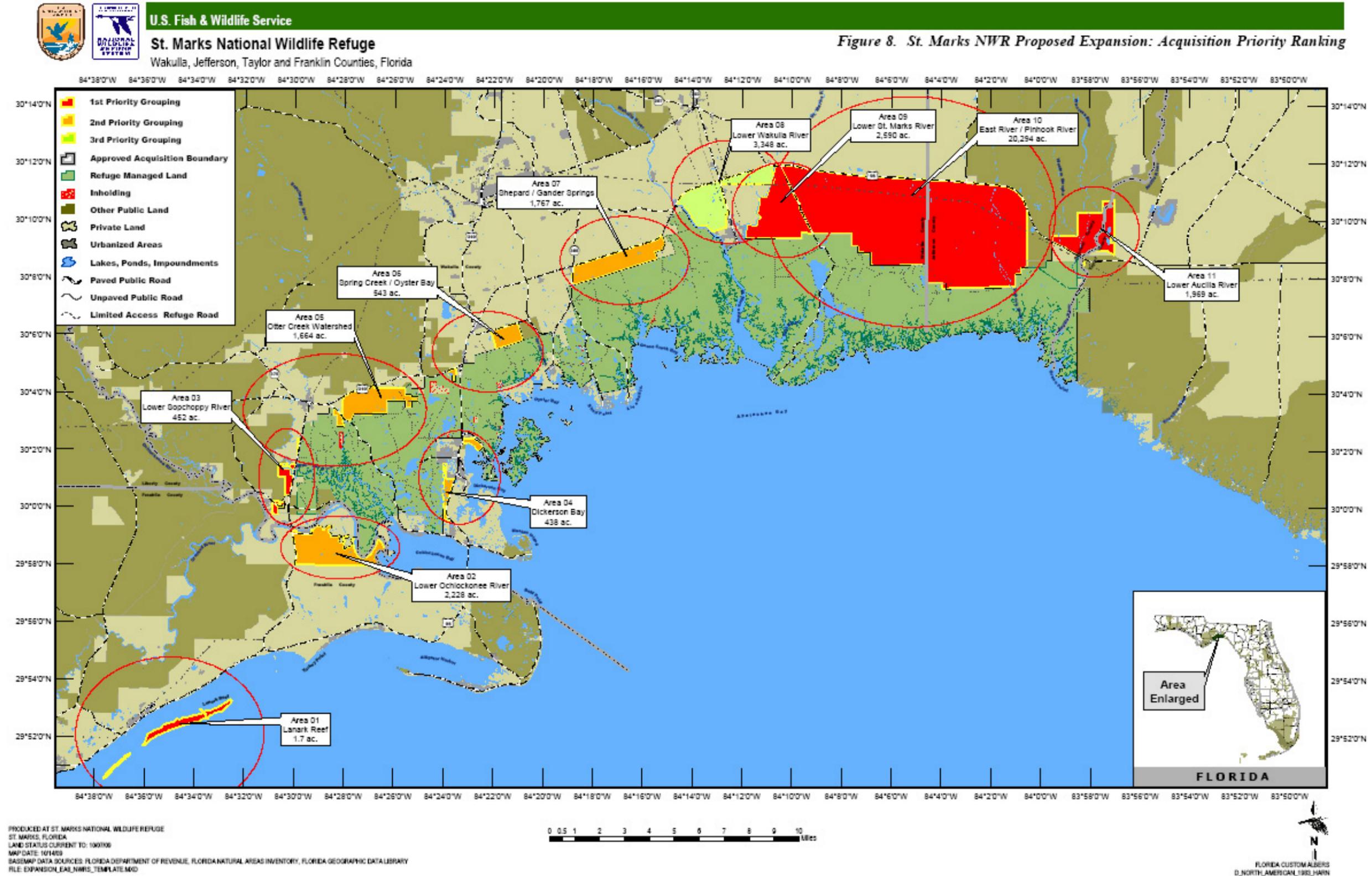
Priority Group III

Priority Group III includes lands between the St. Marks and Wakulla Rivers that could provide additional wildlife corridors and buffers to the St. Marks and Wakulla Rivers.

Table 3. Protection priorities and recommended methods of acquisition

PRIORITY GROUP	AREA NUMBER	OWNERSHIP	ACREAGE (APPROX.)	METHOD OF ACQUISITION
1	1	PRIVATE	1.7	Donation/Mgt Agreemt
	3	PRIVATE	452	Fee Title/Mgt Agreemt
	9	PRIVATE	2,590	Fee Title/Mgt Agreemt
	10	TNC/PRIVATE	20,294	Fee Title/Mgt Agreemt
	11	PRIVATE	1,969	Fee Title/Mgt Agreemt
2	2	PRIVATE	2,228	Fee Title
	5	PRIVATE	1,664	Fee Title
	6	PRIVATE	543	Fee Title/Mgt Agreemt
	4	PRIVATE	438	Fee Title/Mgt Agreemt
	7	PRIVATE	1,767	Fee Title
3	8	PRIVATE	3,348	Mgt Agreement/ Conservation Easement

Figure 8. St. Marks NWR Proposed Expansion: Acquisition Priority Ranking



Appendix A. Conceptual Management Plan

**CONCEPTUAL MANAGEMENT PLAN
PROPOSED ESTABLISHMENT/EXPANSION
OF ST. MARKS NATIONAL WILDLIFE REFUGE
WAKULLA, JEFFERSON, TAYLOR AND FRANKLIN COUNTIES, FLORIDA**

INTRODUCTION

This Conceptual Management Plan for the proposed expansion of St. Marks National Wildlife Refuge (NWR) is an overview of how the lands would be managed under the Comprehensive Conservation Plan for St. Marks National Wildlife Refuge (approved November 2006) until an amendment for the acquisition is completed. A Conceptual Management Plan does not detail where facilities would be located or show where public use would be allowed. These details would be included in an amended Comprehensive Conservation Plan, for which public input would be solicited.

The proposed expansion would encompass up to 35,295 acres in Wakulla, Jefferson, Taylor, and Franklin Counties, Florida.

MANAGEMENT GOALS AND OBJECTIVES

By protecting additional conservation lands critical to the management of refuge resources, it is tied to many of the goals and objectives of the Comprehensive Conservation Plan (CCP), including:

Goal 1. Wildlife Habitat and Population Management - Conserve, restore, and enhance a natural diversity and abundance of habitats for native plants and animals;

Objective 1: Emphasize and encourage the protection of additional conservation lands, outside the current acquisition boundary, that are critical to the management of refuge protected resources (black bear, frosted flatwoods salamander, and migratory birds);

Objective 7: Protect natural wetlands and aquatic habitats and restore natural hydroperiods for the benefit of native wildlife with an emphasis on trust species;

Objective 8: Improve management of refuge fisheries;

Objective 9: Continue to restore and maintain open multi-aged, historic pine communities with low, diverse understories (red-cockaded woodpeckers, frosted flatwoods salamanders, black bear);

Goal 2. Threatened, Endangered, Rare, and Imperiled Species - Conserve and enhance populations of threatened, endangered, rare, and imperiled plants and animals and their native habitats (frosted flatwoods salamander, black bear, wood stork);

Objective 11: Provide suitable black bear habitat, including corridors and links to the major population centers of the Apalachicola National Forest/Tate's Hell State Forest, and the Aucilla/Wacissa River areas;

Objective 15: By 2014, inventory and manage rare and listed plants;

Goal 3. Migratory Birds - Provide high-quality habitat for migratory birds (swallow-tailed kite, neotropical migrants);

Objective 3: Provide nesting, foraging, and important migratory stopover habitat for shorebirds, waterbirds, and marshbirds in accordance with the Southeastern Coastal Plain and Caribbean Region Shorebird Conservation Plan, the Partners in Flight Program, and the Southeastern Coastal Plain Colonial Waterbird Conservation Regional Plan;

Objective 4: Employ active water and plant community management activities on most impoundments to create a range of freshwater to slightly brackish environs on approximately 1,600 acres within the St. Marks Unit;

Objective 5: Manage to restore and maintain/improve refuge forested habitats, particularly pine flatwoods, pine cabbage-palmetto hammocks, mesic and hydric pine hardwoods, and hardwood hammocks for migratory birds;

Goal 4. Visitor Services - Promote an understanding and appreciation of fish and wildlife resources and provide visitors with a quality, safe, and enjoyable experience compatible with wildlife and wildland conservation;

Objective 1: By 2011, complete a Visitor Services Management Plan for the refuge. Specific emphasis would be placed on assessing and enhancing the environmental education program for target audiences to strengthen each visitor's relationship with wildlife and the environment.

Objective 2: By 2011, assess all refuge environmental and interpretation programs in order to increase awareness of the refuge's mission and support for its abundant natural resources. Determine if visitors, students and local residents understand the key resource issues of the refuge, such as endangered species, migratory birds, fire, and forest management.

Objective 3: Provide biologically sound hunting opportunities commensurate with population status of game species on the refuge;

Objective 4: Provide safe sport fishing opportunities to the public, compatible with wildlife and resource objectives and the Fisheries Management Plan;

Objective 5: By 2011, assess and enhance opportunities for all visitors to view and photograph wildlife and wildlands as a means of understanding and supporting the refuge mission;

Goal 5. Cultural Resource Management and Protection - Protect archaeological, cultural, and historic resources for future generations as examples of human interaction with the natural environment (all Areas except Area 1 contain significant cultural resources);

REFUGE ADMINISTRATION

The proposed additions to St. Marks NWR would be administered and managed by the Service as part of the National Wildlife Refuge System under the guidance of the CCP for St. Marks NWR (approved November 2006). The Service's Southeast Regional Office in Atlanta, Georgia, would provide technical assistance on such matters as engineering, public use planning, and migratory bird management.

The administrative headquarters for the proposed refuge expansion area is located at the St. Marks NWR Visitor Center on Lighthouse Road near St. Marks, Florida. The headquarters office hours are from 8 a.m. to 4 p.m., Monday through Friday.

HABITAT MANAGEMENT

The proposed expansion lands are generally upland of the coastal lands and would provide a buffer to substantial wetlands and seagrass beds. The existing refuge is at the base of two watersheds that originate in Georgia. Adding upland area to the refuge would help protect important water basins. Changes to the hydrology or hydroperiod through land or road development could adversely affect the fish and waterfowl populations within the refuge. The proposed expansion also provides additional inland habitat to mitigate the anticipated sea level rise associated with global climate change. These properly restored and managed lands would provide essential habitat to wildlife forced to move inland due to the changing coastline.

Native pine forest is comprised of longleaf pine and longleaf pine-dominated forests and the seasonally ponded isolated wetlands those forests contain. This habitat is generally characterized by an open overstory of pine trees that contains little midstory vegetation and a dense, herbaceous ground cover that is maintained by frequent fire. Pine forest supports a unique assemblage of resident and neotropical migratory birds, reptiles, amphibians, and plants, as well as numerous other species, which regularly or occasionally use these habitats. Native pine forests and encompassed wetlands provide significant breeding grounds for amphibians and habitat for several imperiled species, including frosted flatwoods salamanders, wood storks, red-cockaded woodpeckers (RCW), swallow-tailed kites, Florida pine snakes, gopher tortoises, Henslow sparrows, Bachman's sparrows, Sherman's fox squirrels, and Florida black bears. Area 10 contains at least six former RCW territories and sufficient foraging area to support reintroduction of RCWs as site management increases. Addition of this area would help the refuge meet its conservation objectives for this species. While much of Florida's native longleaf pine communities have been replaced with loblolly or slash pine for timber, the purchase of these pinelands would provide an opportunity for restoration over time. These lands would be a focal point for the development of longleaf pine community restoration under the Land Management Research and Demonstration Program and would showcase the Service's Strategic Habitat Conservation Initiative.

Mixed wetland forests (palustrine forest) include a variety of wetland types—cypress domes or strands, bay swamps, bottomland hardwoods, and river swamps. Cypress and bay swamps occur along lake margins, rivers, and depressions within other communities, such as flatwoods. Bottomland hardwoods occur within the flood plain of river systems and have highly diverse vegetative communities. Wetland forests provide cover and food sources for many species, including black bears, bobcats, deer, owls, turkeys, snakes, frogs, swallow-tailed kites, and wading birds. These forests serve a critical role within the ecosystem or watershed by receiving, purifying, and regulating flood water. Mixed conifer and hardwood upland is a blend of pine (mostly slash) and hardwoods, such as large oaks, sweetgum, hickory, magnolia, and dogwood.

Tidal marshes or emergent wetlands are primarily dominated by black needlerush, smooth cordgrass or saltgrass. Saltmarshes provide nutrients for a variety of animal life and they provide nursery habitat for juvenile marine species. Saltmarshes stabilize and protect shorelines. Freshwater or palustrine marsh includes all nontidal wetlands dominated by persistent emergents, usually a single species. They are generally located on low flatlands associated with the drainage systems of rivers, creeks or inland depression. They provide habitat and feeding areas for wading birds, rails, Gulf Coast salt marsh snakes, seaside sparrows, other salt marsh sparrows, and wintering areas for waterfowl.

In addition to the above widespread habitats, there is a small parcel of coastal barrier islands known as Lanark Reef that is comprised of low shrubs, salt-tolerant grasses, sand flats, and beach that provides significant nesting habitat for brown pelicans, black skimmers, American oystercatchers, least terns, royal terns, and other shorebirds. The island group also provides important wintering habitat for piping plovers, snowy plovers, and a wide variety of other shorebirds.

Management planned for the acquisition areas includes restoring hydrology, restoring longleaf pine habitat, and prescribed burning.

FISH AND WILDLIFE POPULATION MONITORING

Periodic surveys would be conducted on the proposed expansion area to document the occurrence of species, to assess population numbers, and habitat use. Surveys would include non-game bird inventories, nesting surveys, endangered species monitoring, habitat monitoring, and breeding bird surveys. Banding and marking of wildlife may also be conducted.

Some surveys would be conducted in cooperation with the Florida Wildlife Conservation Commission to tie into its current databases. Educational institutions, other governmental agencies, and private groups may also be allowed to conduct surveys or research on the refuge.

PUBLIC USE OPPORTUNITIES AND MANAGEMENT

The National Wildlife Refuge System Improvement Act of 1997 emphasizes the importance of providing wildlife-dependent recreational opportunities on national wildlife refuges as long as they are compatible with the goals of the refuge. Public use opportunities on the refuge would likely include both consumptive (e.g., hunting, fishing, and trapping) and non-consumptive uses (e.g., wildlife observation, wildlife photography, and environmental education and interpretation).

The following public use regulations, common to many national wildlife refuges, would be adopted to achieve the management goals for the refuge:

- Public entry is usually permitted year-round in those areas shown in the refuge leaflet and marked by appropriate signs.
- Use of the refuge for any activity is generally limited to daylight hours only. No camping or overnight parking would be permitted.
- Discharging firearms would be prohibited except during established hunting seasons in areas open to hunting. Possession of firearms would conform to and be consistent with state laws.
- Collecting any plant or animal would be prohibited unless otherwise specified.

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- No person may search for, disturb, or remove from the refuge any cultural artifact or other historical artifact.
 - Directing the rays of any artificial light for the purpose of spotting, locating, or taking any animal would be prohibited.
 - Entering or remaining on the refuge while under the influence of alcohol or drugs would be prohibited.
 - Fires are generally not permitted except for agricultural and forestry management practices.
 - Dogs and other pets must be kept under physical control at all times.

Visitor Access

Public roads that traverse the proposed expansion area would remain open to public use. Logging roads are generally closed once a given tract is acquired. Off-road use of all-wheel-drive vehicles and all-terrain vehicles would generally be prohibited on the refuge.

Some areas may be closed to visitors at certain times of the year to protect sensitive wildlife and their habitat (e.g., a heron rookery). Signs and leaflets would clearly indicate the open and closed areas of the refuge. However, large blocks of a refuge are usually open for access by foot, canoe, or other non-motorized means. The needs of physically challenged persons would be considered and included during access planning for any refuge activity or facility.

Hunting

Recreational hunting of white-tailed deer and hogs may be permitted within the framework of state and federal regulations and licensing requirements. Seasons, areas, and types of hunting would be determined by safety, management needs, wildlife populations, size of areas, location, and public need. Refuge-specific hunting regulations would be coordinated in annual meetings with the Florida Fish and Wildlife Conservation Commission.

Certain areas within the proposed expansion area may be closed to provide undisturbed areas for wildlife. Other areas may be closed to hunting to permit safe, non-consumptive visitor use during the hunting season.

Hunting from permanent tree stands and hunting with the aid of bait will be prohibited. The use of dogs to hunt white-tailed deer and feral hogs would be prohibited.

Fishing

Fishing would be permitted within the framework of state regulations and licensing requirements. Boats would be permitted and motor size/use restrictions in certain refuge-controlled areas may be implemented if necessary to protect important habitat and wildlife resources. Air-thrust boats would be prohibited.

Wildlife Observation and Photography

Wildlife observation and photography would be encouraged. To provide opportunities for wildlife observation, facilities that might be developed include wildlife observation platforms and nature trails. The development of these facilities would depend upon the availability of funds.

Environmental Interpretation and Education

Environmental education and interpretive programs would be designed to enhance the visitor's understanding of natural resource management and ecological concepts. The proposed refuge expansion area could serve as an important "outdoor classroom" for the area's local schools. Teacher workshops may be offered to enhance ongoing environmental education programs. Interpretive programs would focus on self-guiding facilities, such as nature trails, information kiosks, leaflets and booklets, and interpretive signs along interesting features.

St. Marks NWR has been nominated as a Land Management Research Demonstration Area for the longleaf pine ecosystem. The acquisition area would serve as a demonstration site for longleaf pine ecosystem restoration.

Law Enforcement

Enforcement of state and federal laws on a national wildlife refuge is important to safeguard the refuge's natural and cultural resources and protect and manage visitors. Refuge officers would work closely with other law enforcement agencies and complement their efforts.

FACILITIES MANAGEMENT

Boundaries of any lands acquired would be posted with national wildlife refuge signs at regular intervals. Signs and barriers may be used to protect sensitive wildlife habitats, to reduce disturbance to wildlife, or to assure public health and safety.

MISCELLANEOUS

Cultural Resource Management

The Service would inventory the archaeological and historic sites on the proposed refuge expansion area lands and assess their eligibility for listing on the National Register of Historic Places. Management would be coordinated with the State Historic Preservation Office and other pertinent federal and state agencies.

Fire Management

It is the policy of the Service to use fire when it is the most appropriate management tool for reaching habitat objectives. Wildfires, however, would be aggressively suppressed unless such natural fires are a part of an approved fire management plan. Protection and safety of people and property is top priority within the fire management program.

St. Marks NWR has a staff trained in fire management and an array of equipment for fire suppression. To supplement these capabilities, cooperative agreements with state agencies and county, parish, or township fire departments are used.

In recent years the refuge also acquired land through timber-for-lands exchanges. The timber traded under this program was slated for removal in forest prescriptions to improve wildlife habitat. Rather than sell timber directly, the refuge has traded the timber for lands that were either adjacent to the refuge or in-holdings.

Pest Management

It is Service policy to control those weeds and other plants listed as noxious by the state. This control would emphasize non-chemical methods and would be directed at keeping noxious weeds and plants from spreading to adjacent private lands. In addition, other noxious plants and some animals may have to be removed in order to accomplish refuge goals.

Appendix B. Pre-Acquisition Compatibility Determination

PRE-ACQUISITION COMPATIBILITY DETERMINATION

This Pre-acquisition Compatibility Determination describes the wildlife-dependent recreational activities proposed on lands to be acquired as part of the National Wildlife Refuge System and determines whether these activities are compatible with the purposes for which the refuge was established. Under the National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997, and the Refuge Recreation Act of 1962, the Service may not permit public recreational activities on a national wildlife refuge unless the activities are first determined to be compatible with the purposes of the refuge. This Pre-acquisition Compatibility Determination is intended to bridge the gap between acquisition of the proposed refuge expansion lands and completion of an amendment to the Comprehensive Conservation Plan (CCP) for St. Marks National Wildlife Refuge (completed November 2006). The CCP would be amended 2 years following the purchase of more than 7,000 acres of additional lands.

All lands of the National Wildlife Refuge System will be managed in accordance with an approved CCP that will guide management decisions and set forth strategies for achieving refuge purposes. The CCP will be consistent with sound resource management principles, practices, and legal mandates, including Service compatibility standards and other Service policies, guidelines, and planning documents. One of the major objectives of a CCP is to provide a basis for determining the compatibility of secondary uses on refuge lands. An amended CCP would be completed within 2 years after the project lands are acquired by the Service.

Description of Use: (1) Wildlife observation/photography; (2) recreational fishing in accordance with State of Florida regulations; (3) recreational hunting in accordance with State of Florida regulations; and (4) wildlife-dependent environmental education, and (5) environmental interpretation.

Refuge Name: St. Marks National Wildlife Refuge

Date Established: October 31, 1931

Establishing and Acquisition Authorities:

Executive Order 5740-established St. Marks Migratory Bird Refuge on October 31, 1931.

Presidential Proclamation No. 1982 - established the Executive Closure Area on December 24, 1931.

Executive Order 7222 - added acreage on November 1, 1935.

Executive Order 7749 - added acreage on November 22, 1937.

Presidential Proclamation No. 2264 - December 13, 1937 - expanded Executive Closure Area.

Executive Order 7977 - added acreage on April 1, 1942.

Presidential Proclamation No 2416 July 25, 1940 - Changed name to St. Marks National Wildlife Refuge.

Executive Order 9119 - added acreage on April 1, 1942.

Secretary's Order - modified the Executive Closure Area on October 22, 1953.

Secretary's Order - enlarged and established a new closure order boundary on October 15, 1960.

16 U.S.C. 715d (Migratory Bird Conservation Act of 1929)

16 U.S.C. 461k-1 (Refuge Recreation Act of 1962)

Purposes for Which the Refuge was Established: These purposes and the mission of the National Wildlife Refuge System are fundamental to determining the compatibility of proposed uses of the refuge. The purposes of the refuge are as follows:

- “... as a refuge and breeding ground for wild animals and birds...” (Executive Order 5740);
- “... for use as an inviolate sanctuary, or for any other management purpose, for migratory birds.” (Migratory Bird Conservation Act);
- “...suitable for (1) incidental fish and wildlife-dependent recreation development, (2) the protection of natural resources, (3) the conservation of endangered species or threatened species...”(Refuge Recreation Act);
- “... for conservation, management, and restoration of the fish, wildlife, and plant resources and their habitats for the benefit of present and future generations of Americans (National Wildlife System Administration Act); and
- “...certain lands in the St. Marks National Wildlife Refuge, Florida, which comprise approximately seventeen thousand seven hundred and forty-six acres...as the St. Marks Wilderness (Public Law 92-363)

Refuge Goals and Objectives:

By protecting additional conservation lands critical to the management of refuge resources, the Land Protection Plan is tied to many of the goals and objectives of the Comprehensive Conservation Plan for St. Marks National Wildlife Refuge, including:

Goal 1. Wildlife Habitat and Population Management - Conserve, restore, and enhance a natural diversity and abundance of habitats for native plants and animals;

Objective 1: Emphasize and encourage the protection of additional conservation lands, outside the current acquisition boundary, that are critical to the management of refuge protected resources (black bear, frosted flatwoods salamander, and migratory birds);

Objective 7: Protect natural wetlands and aquatic habitats and restore natural hydroperiods for the benefit of native wildlife with an emphasis on trust species;

Objective 8: Improve management of refuge fisheries;

Objective 9: Continue to restore and maintain open multi-aged, historic pine communities with low, diverse understories (red-cockaded woodpeckers, frosted flatwoods salamanders, black bears);

Goal 2. Threatened, Endangered, Rare, and Imperiled Species - Conserve and enhance populations of threatened, endangered, rare, and imperiled plants and animals and their native habitats (frosted flatwoods salamander, black bear, wood stork);

Objective 11: Provide suitable black bear habitat, including corridors and links to the major population centers of the Apalachicola National Forest/Tate's Hell State Forest, and the Aucilla/Wacissa River areas;

Objective 15: By 2014, inventory and manage rare and listed plants;

Goal 3. Migratory Birds - Provide high-quality habitat for migratory birds (swallow-tailed kite, neotropical migrants);

Objective 3: Provide nesting, foraging, and important migratory stopover habitat for shorebirds, waterbirds, and marshbirds in accordance with the Southeastern Coastal Plain and Caribbean Region Shorebird Conservation Plan, the Partners in Flight Program, and the Southeastern Coastal Plain Colonial Waterbird Conservation Regional Plan;

Objective 4: Employ active water and plant community management activities on most impoundments to create a range of freshwater to slightly brackish environs on approximately 1,600 acres within the St. Marks Unit;

Objective 5: Manage to restore and maintain/improve refuge forested habitats, particularly pine flatwoods, pine cabbage-palmetto hammocks, mesic and hydric pine hardwoods, and hardwood hammocks for migratory birds;

Goal 4. Visitor Services - Promote an understanding and appreciation of fish and wildlife resources and provide visitors with a quality, safe, and enjoyable experience compatible with wildlife and wildland conservation;

Objective 1: By 2011, complete a Visitor Services Management Plan for the refuge. Specific emphasis will be placed on assessing and enhancing the environmental education program for target audiences to strengthen each visitor's relationship with wildlife and the environment.

Objective 2: By 2011, assess all refuge environmental and interpretation programs in order to increase awareness of the refuge's mission and support for its abundant natural resources. Determine if visitors, students and local residents understand the key resource issues of the refuge, such as endangered species, migratory birds, fire, and forest management.

Objective 3: Provide biologically sound hunting opportunities commensurate with population status of game species on the refuge;

Objective 4: Provide safe sport fishing opportunities to the public, compatible with wildlife and resource objectives and the Fisheries Management Plan;

Objective 5: By 2011, assess and enhance opportunities for all visitors to view and photograph wildlife and wildlands as a means of understanding and supporting the refuge mission;

Goal 5. Cultural Resource Management and Protection - Protect archaeological, cultural, and historic resources for future generations as examples of human interaction with the natural environment (all Areas except Area 1 contain significant cultural resources);

Mission of the National Wildlife Refuge System: To administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans (National Wildlife Refuge System Improvement Act of 1997).

Goals of the National Wildlife Refuge System: (1) To conserve, restore, and enhance in their natural ecosystems (when practicable) all species of animals and plants that are endangered or threatened with becoming endangered; (2) to perpetuate the migratory bird resource; (3) to conserve a natural diversity and abundance of fauna and flora on refuge lands; (4) to provide an understanding and appreciation of fish and wildlife ecology and man's role in his environment; and (5) to provide refuge visitors with quality, safe, wholesome, and enjoyable recreational experiences oriented toward wildlife to the extent these activities are compatible with the purposes for which the refuge was established.

Other Applicable Laws, Regulations and Policy:

National Wildlife Refuge System Improvement Act of 1997

National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd-668ee)

Refuge Recreation Act of 1962 (16 U.S.C. 460k-460k-4)

Title 50 of the Code of Federal Regulations, Subchapters B and C)

The Refuge Manual

The Service Manual

Endangered Species Act of 1973 (16 U.S.C. 1531-1543)

Migratory Bird Conservation Act of 1929 (16 U.S.C. 715-715d)

Migratory Bird Hunting and Conservation Stamp Act (16 U.S.C. 718-718h)

Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-712)

National Environmental Policy Act of 1969 (P.L. 91-190, 42 U.S.C. 4321-4347)

Bald Eagle Protection Act of 1940 (16 U.S.C. 668-668d)

Anticipated Biological Impacts of the Use: Wildlife-dependent public use is generally encouraged on national wildlife refuges as long as it is compatible with the purposes for which the refuge was established. Public use opportunities are varied and may include both consumptive (e.g., hunting and fishing) and non-consumptive uses (e.g., wildlife observation/photography and environmental education and interpretation).

Because the main purpose for establishing national wildlife refuges is the conservation of fish and wildlife and their habitats, surveys are conducted to collect data regarding fish and wildlife populations and habitat trends. This information forms the basis for habitat management decisions. Wise management of fish and wildlife habitats, fish and wildlife populations, and public use activities requires current and accurate information about the resources on and adjacent to the refuge. Detailed biological and public use information on the lands proposed for the expansion of St. Marks National Wildlife Refuge is not available.

This Interim Compatibility Determination relies on the best estimate of current public use levels as determined by the Service in consultation with the Florida Wildlife Conservation Commission and The Nature Conservancy. During the comprehensive conservation planning process, the Service will gather public data, conduct surveys to estimate fish and wildlife populations, and fully assess public use impacts on the resources.

Following is a general description of the types and estimated levels of wildlife-dependent recreational activities that are proposed on the lands to be acquired as a national wildlife refuge and a discussion of whether these uses will be compatible with the purposes of the refuge:

Wildlife Observation/Photography

Within the project lands, non-consumptive uses, such as bird-watching and nature photography, are minimal at this time due to the private ownership and posted status of the property. Accurate quantitative estimates of these types of uses are not available. Most private visits to the area have been associated with hunting or fishing activities.

The area's habitat for wetland-dependent wildlife species is outstanding. The area is used by Florida black bear and a variety of resident wildlife and migratory songbirds. Once the proposed refuge is established and the public and conservation groups become aware of its excellent wildlife observation opportunities, an increase in non-consumptive wildlife-dependent visits is anticipated.

Wildlife observation/photography activities might result in some disturbance to wildlife, especially if visitors venture (either accidentally or purposely) too close to a bird rookery or a bald eagle nest. This disturbance, when properly managed, is expected to be minimal and to have an insignificant effect on refuge resources, including fish and wildlife and their habitats and wetland values. Therefore, the anticipated levels of wildlife observation/photography activities are considered to be compatible with the purposes for which the refuge would be established.

Fishing

The proposed refuge area includes numerous accesses to river systems. Principal gamefish include largemouth bass, bream, and catfish.

Fishing is a common form of public use on the proposed refuge area. Fishing for largemouth bass, bream, and catfish is good extremely popular with local fishermen. Sportfishing in this region is considered to be a traditional form of wildlife-dependent recreation.

Properly regulated recreational fishing should not have any adverse impacts on either the fisheries resource, wildlife resource, or other natural resource of the proposed refuge. There may be some limited disturbance to certain species of wildlife; however, this should be short-lived, relatively minor, and is not expected to negatively impact the wetland values of the refuge unit. Problems associated with littering and illegal take of fish (e.g., undersized fish and over-bag limit) would be controlled through effective law enforcement. Some sensitive areas may have limited access and use if disturbance becomes a limiting problem.

Sport fishing is very popular in the area. Allowing the public to fish on the proposed refuge area would result in a positive public opinion and would help build support for the Service and its natural resource conservation agenda. It would also be allowed and managed to assure wise use of a renewable resource.

The projected level of sport fishing is considered to be compatible with the purposes for which the refuge was established.

Hunting

The proposed area contains a diversity of habitat types and a variety of wildlife species. A large portion of the proposed area has been used as a wildlife management area by the Florida Fish and Wildlife Conservation Commission. The area has been hunted for white-tailed deer, feral hog, and turkey. We expect to allow hunting to continue.

Sport hunting provides recreational opportunities and can be used to assist in the management of certain game species. Carefully managed hunting maintains populations at a level compatible with the environment and permits the use of valuable renewable resources. There may be some limited disturbance to non-targeted species of wildlife and some trampling of vegetation; however, this should be short-lived, relatively minor, and not expected to negatively impact the habitats on the refuge. Problems associated with littering and violations of game laws would be controlled through effective law enforcement. Some areas of the refuge may be closed to hunting as sanctuary areas.

The projected level of hunting is considered to be compatible with the purposes of the proposed refuge.

Environmental Interpretation and Education

Environmental education and interpretive programs would be designed to enhance the visitor's understanding of natural resource management and ecological concepts. The proposed refuge expansion area could serve as an important "outdoor classroom" for the area's local schools. Teacher workshops may be offered to enhance ongoing environmental education programs. Interpretive programs would focus on self-guiding facilities, such as nature trails, information kiosks, leaflets and booklets, and interpretive signs along interesting features.

St. Marks National Wildlife Refuge has been nominated as a Land Management Research Demonstration Area for the longleaf pine ecosystem. The acquisition area would serve as a demonstration site for longleaf pine ecosystem restoration.

The projected level of environmental interpretation and education is considered to be compatible with the purposes of the proposed refuge.

National Environmental Policy Act (NEPA) Compliance: Allowing the projected levels of managed hunting, fishing, and wildlife observation and photography activities evaluated in this Interim Compatibility Determination will have negligible impacts on refuge resources. Permitting these uses should not be controversial, since these activities currently occur on the proposed lands. During the comprehensive conservation planning process, the Service would evaluate the long-term consequences of continued public use through the preparation of a NEPA document.

In assessing the potential impacts of proposed refuge uses, all available tools were utilized (FWS 1986). A site-specific document (Preliminary Project Proposal for the Proposed Expansion of St. Marks National Wildlife Refuge), site-specific personal communications (FWS and "State Conservation Agency" biologists), and general references are considered to be sufficient to make this Interim Compatibility Determination.

Determination: These uses are compatible X . These uses are not compatible ___ .

Based on the available information, it has been determined that the expected level of public sport fishing, hunting, environmental education, environmental interpretation, and wildlife observation/photography activities that would occur within the proposed acquisition boundary for St. Marks National Wildlife Refuge is compatible with the purposes for which the refuge was established.

There has been substantial historical use of this wetland area for fishing and other wildlife-dependent recreational activities. Based on available information, there is no indication of adverse biological impacts associated with these activities. Allowing well-managed wildlife observation/photography, fishing, and hunting is consistent with refuge objectives and follows current Service policy.

This Pre-acquisition Compatibility Determination is based on a very limited amount of public use and biological information. Much more information is needed for a detailed analysis of compatibility. During the amendment to the CCP, which would be completed with appropriate public input, the Service would be able to gather additional public use and biological data necessary for a thorough determination of compatibility. Adjustments to the public use program may be made at that time.

There are a number of situations where refuge closures or restrictions may be warranted. Examples of these situations include, but are not limited to, protection of endangered species (flora or fauna), protection of colonial bird rookeries, establishment of sanctuary areas for waterfowl, restriction of hunting to selected days of the week, establishment of quota systems to provide for a quality hunting experience, conflicts with other refuge management programs, and lack of adequate resources to administer the programs.

Stipulations Necessary to Ensure Compatibility: During this interim period, wildlife observation/photography, hunting, and fishing may be permitted in accordance with State of Florida regulations and licensing requirements, with the following exceptions:

- The refuge would be open for public use during daylight hours only.
- Air thrust boats would be prohibited.
- Hunting from permanent tree stands and blinds would be prohibited.
- Baiting or hunting with the aid of bait would be prohibited.
- Hunting deer with dogs would not be allowed on the refuge.
- No camping would be allowed unless associated with Florida National Scenic Trail.

When the refuge's amended CCP is completed, additional refuge-specific regulations may be implemented.

Justification: The Service's current policy is to expand and enhance opportunities for quality hunting and fishing on national wildlife refuges.

Hunting and fishing are considered to be compatible with the purposes of the proposed refuge and meet one of the refuge's objectives to provide for compatible wildlife-dependent recreation. Allowing hunting and fishing follows current Service policy to expand and enhance opportunities for quality hunting and fishing on refuges. Allowing fishing also helps to maintain and build support for the Service and other wildlife conservation efforts.

Non-consumptive, wildlife-dependent uses, such as wildlife observation and photography, are compatible with the proposed refuge's purpose and meet one of the refuge's objectives to provide for compatible wildlife-dependent recreation. Allowing these uses follows current Service policy to provide for compatible wildlife-dependent recreation. Allowing these non-consumptive recreational opportunities helps to maintain and build public support for the Service and its fish and wildlife conservation efforts.

Project Leader: _____
(Signature/Date)

Refuge Supervisor: _____
(Signature/Date)

Regional Compatibility Coordinator: _____
(Signature/Date)

**Regional Chief, National Wildlife
Refuge System, Southeast Region:** _____
(Signature/Date)

Appendix C. Interim Recreation Act Funding Analysis

INTERIM RECREATION ACT FUNDING ANALYSIS

Station Name: St. Marks National Wildlife Refuge.

Date Established: October 31, 1931

Purpose(s) for Which the Refuge was Established: "... as a refuge and breeding ground for wild animals and birds..." (Executive Order 5740);
"... for use as an inviolate sanctuary, or for any other management purpose, for migratory birds." (Migratory Bird Conservation Act);
"...suitable for (1) incidental fish and wildlife-dependent recreation development, (2) the protection of natural resources, (3) the conservation of endangered species or threatened species..."(Refuge Recreation Act);
"... for conservation, management, and restoration of the fish, wildlife, and plant resources and their habitats for the benefit of present and future generations of Americans (National Wildlife System Administration Act); and
"...certain lands in the St. Marks National Wildlife Refuge, Florida, which comprise approximately seventeen thousand seven hundred and forty-six acres...as the St. Marks Wilderness (Public Law 92-363)
"... for any other management purpose, migratory birds..." (16 U.S.C. 715d).

Recreational Use(s) Evaluated: (1) Recreational hunting of resident game and migratory birds (waterfowl) in accordance with federal and State of Florida regulations; (2) recreational fishing of freshwater fish species (e.g., largemouth bass, bream, catfish, and crappie) and saltwater species (trout, redfish, mullet, scallops, etc.), in accordance with State of Florida regulations; and (3) wildlife observation/photography.

Funding Required to Administer and Manage the Recreational Use(s): Minimal funding in the amount of \$100,000 will be made available to implement initial protection, hunt implementation, data collection, and non-consumptive uses.

Based on a review of the refuge budget allocated for recreational use management, I certify that funding is adequate to ensure compatibility and to administer and manage the recreational use(s).

Project Leader: _____
(Signature/Date)

Refuge Supervisor: _____
(Signature/Date)

**Regional Chief, National
Wildlife Refuge System,
Southeast Region:** _____
(Signature/Date)

