

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

Wakulla, Jefferson, Taylor, and Franklin Counties, Florida

Southeast Region



**FINAL ENVIRONMENTAL ASSESSMENT AND LAND PROTECTION PLAN
FOR THE 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
Atlanta, Georgia**

April 2011

TABLE OF CONTENTS

I.	PURPOSE AND NEED FOR ACTION	1
A.	Introduction	1
B.	Purpose.....	1
C.	Background	2
D.	Action	5
E.	Coordination and Consultation.....	9
F.	Fish and Wildlife Service Land Acquisition Policy	9
G.	PUBLIC PARTICIPATION.....	9
II.	ALTERNATIVES INCLUDING THE PREFERRED 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 (Preferred 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.....	16
	Rare Plants	23
C.	Wildlife Resources	25
	Black Bear.....	26
	American Swallow-tailed Kite.....	30
	Red-cockaded Woodpecker.....	30
	Wood Stork	30
	Frosted Flatwoods Salamander	31
	Waterfowl, Shorebirds, and Other Migratory Birds.....	31
D.	Fishery Resources	32
E.	Socioeconomic and Sociocultural Conditions	32
F.	Cultural Resources.....	32
IV.	ENVIRONMENTAL CONSEQUENCES	35
A.	Alternative 1: No Action.....	35
B.	Alternative 2: Protection and Management of up to 35,295 Acres by the Fish and Wildlife Service (Preferred Alternative)	35
C.	Alternative 3: Protection and Management of up to 25,307 Acres by the Fish and Wildlife Service	36
V.	INFORMATION ON PREPARERS.....	37
VI.	SUMMARY OF PREFERRED ACTION	37

APPENDICES

APPENDIX A. CONCEPTUAL MANAGEMENT PLAN.....	43
APPENDIX B. PRE-ACQUISITION COMPATIBILITY DETERMINATION	51
APPENDIX C. INTERIM RECREATION ACT FUNDING ANALYSIS.....	59
APPENDIX D. FINDING OF NO SIGNIFICANT IMPACT.....	61

LIST OF FIGURES

Figure 1. St. Marks NWR.....	3
Figure 2. Lands included in the expansion project under Alternative 2	7
Figure 3. Lands included in the expansion project under Alternative 3	13
Figure 4a. Land cover classification of lands in the expansion project under Alternative 2 (Map 1)	19
Figure 4b. Land cover classification of lands in the expansion project under Alternative 2 (Map 2)	21
Figure 5. St. Marks NWR expansion: Florida Fish and Wildlife Conservation Commission black bear habitat conservation priorities.....	27
Figure 6. Florida Forever Black Bear Working Group Land Acquisition Priorities for Florida Black Bear	29
Figure 7. Frosted Flatwoods Salamander Breeding Pond Locations on St. Marks NWR and Expansion Areas 9 and 10.....	33
Figure 8. St. Marks NWR Expansion: Acquisition Priority Ranking	41

LIST OF TABLES

Table 1. Summary of habitat types (by acres) within the expansion area	17
Table 2. Documented and likely occurrences of rare plant species	24
Table 3. Protection priorities and recommended methods of acquisition	39

I. PURPOSE AND NEED FOR ACTION

A. INTRODUCTION

The U.S. Fish and Wildlife Service (Service) will 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 conserving 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 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 lands will be managed. As the refuge is expanded and the 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 the plan for the protection of additional wildlife habitat in Wakulla, Jefferson, Taylor, and Franklin Counties, as part of the St. Marks NWR. This plan expands the acquisition boundaries of 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 with lands 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 Section F.

Within approved acquisition boundaries, the Service will 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):

- To protect occupied habitat of the threatened flatwoods salamander;
- To protect a regionally significant bird rookery at Lanark Reef;
- To protect and restore 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;
- To protect an important Florida black bear corridor;
- To improve the habitat linkages between the refuge and other conservation lands;
- To provide habitat for the restoration of endangered red-cockaded woodpeckers and other declining wildlife associated with the longleaf pine forest; and
- To improve the capability to manage wildlife habitat through prescribed fire and protect the public from wildfires by securing more readily defensible boundaries.

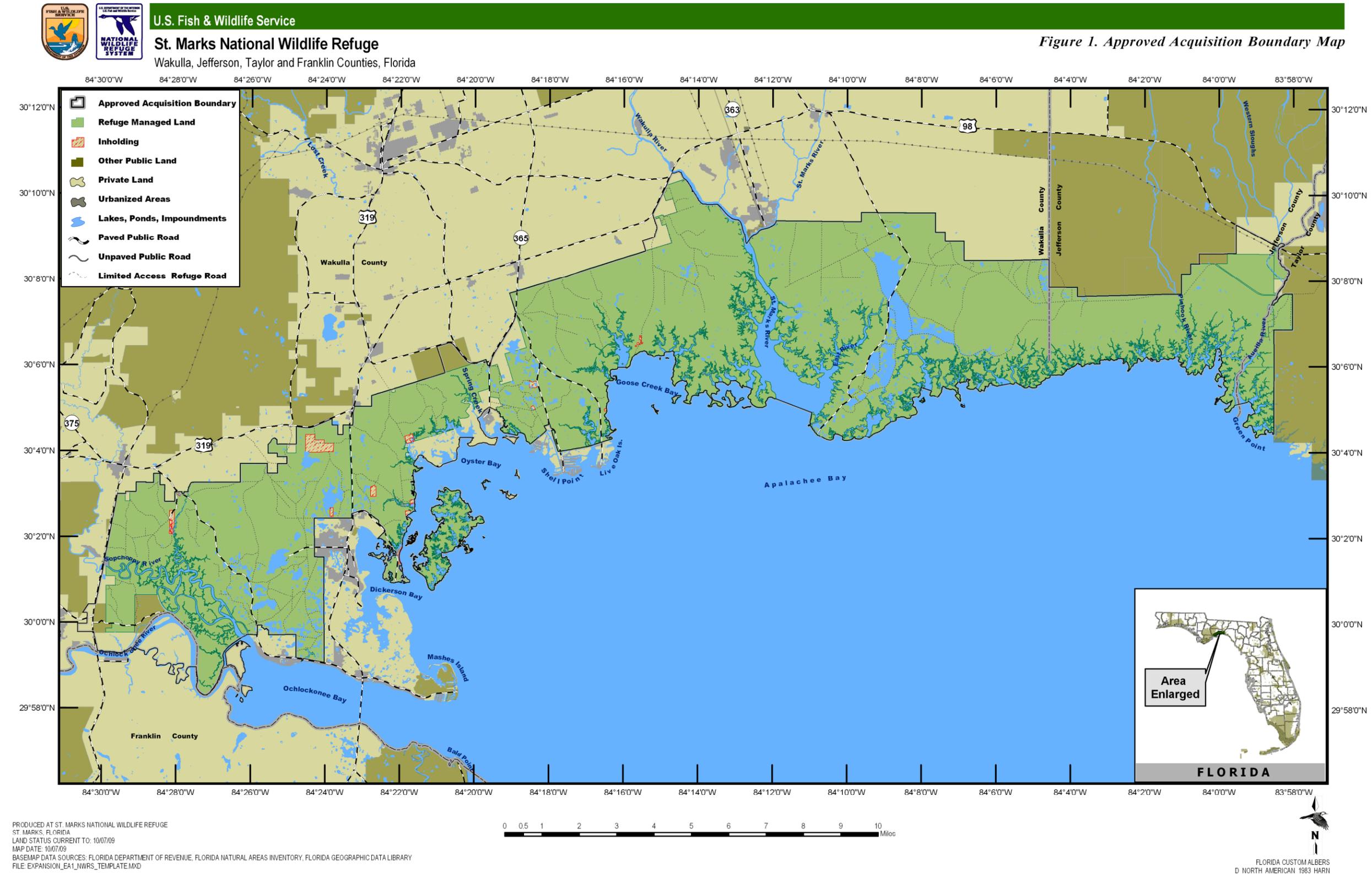
C. BACKGROUND

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

Figure 1. St. Marks NWR



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 expansion areas is by U.S. Highway 98 and Wakulla County Highways 365, 367, and 372.

The 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 will extend about one third of the refuge's northern boundary to U.S. Highway 98. The acquisition will 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. By acquiring these lands, the refuge will be able to provide additional protection for and enhancement of waterfowl, shorebirds, wading birds, neotropical migratory birds, black bears, threatened and endangered species, and a host of other wildlife.

D. ACTION

The Service will acquire, protect, and manage these lands through fee title purchases, leases, conservation easements, and/or cooperative agreements with willing sellers. All lands and waters acquired will be managed by the Service as St. Marks NWR. The objectives of the expansion are to meet both present and future land conservation and resource protection needs and are tied to many of the goals and objectives of the Comprehensive Conservation Plan for St. Marks National Wildlife Refuge (November 2006), 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.

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.

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.

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.

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 of and appreciation for 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;

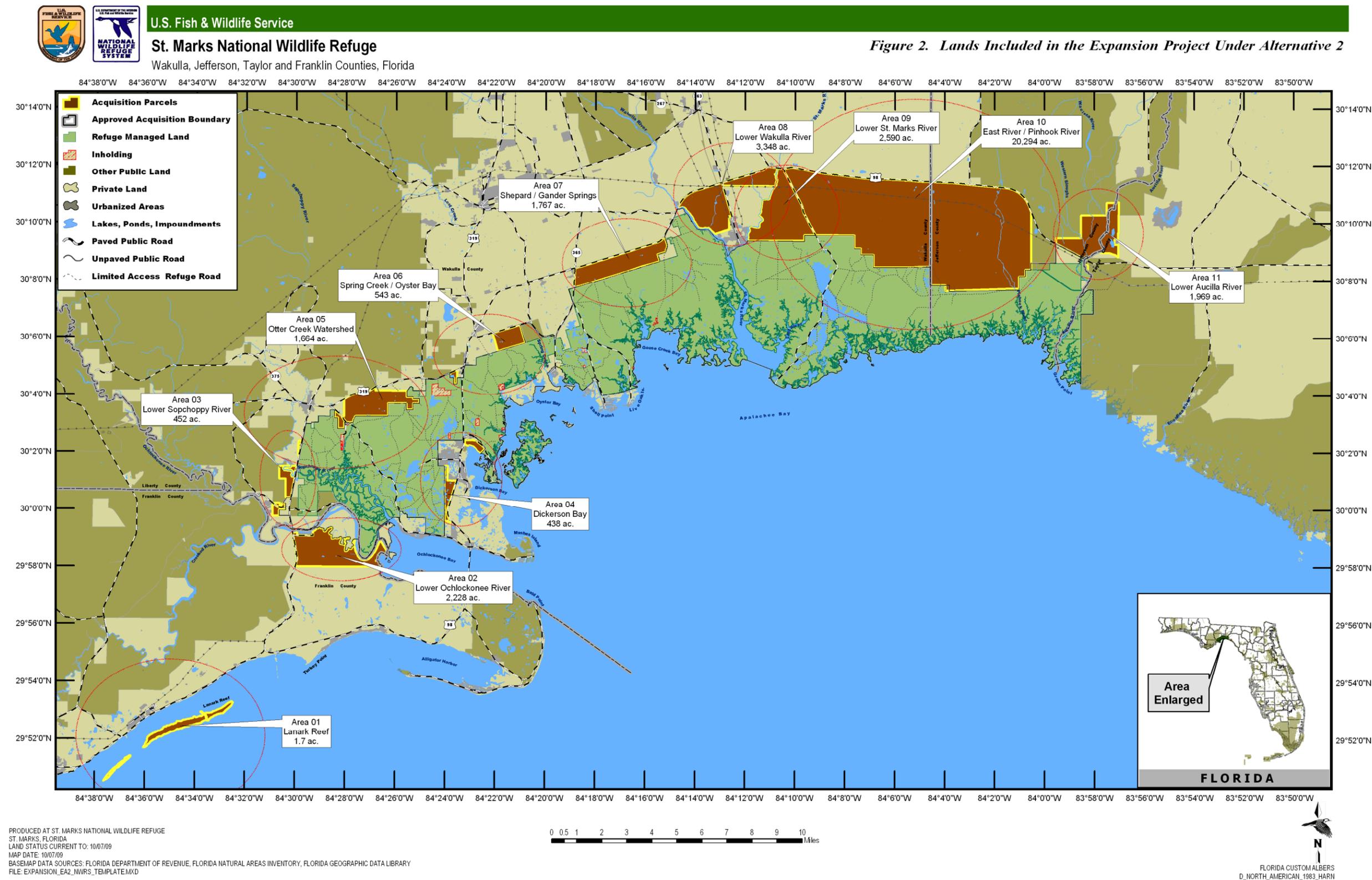
Objective 4: Provide safe sport fishing opportunities to the public, compatible with wildlife and resource objectives and the Fisheries Management Plan;

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.)

Because the expansion areas provide wintering habitat for migratory songbirds and waterfowl and forested habitat for black bears, funding for this project will 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).

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



E. COORDINATION AND CONSULTATION

This expansion of St. Marks NWR is a natural extension of Goal 1, Objective 1, of the approved Comprehensive Conservation Plan for St. Marks National Wildlife Refuge, calling for the protection of additional conservation lands adjacent to the refuge. The preferred alternative (Alternative 2) includes all of the lands identified in the comprehensive conservation plan, plus Lanark Reef.

The comprehensive conservation plan 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 the National Environmental Policy Act (NEPA).

F. FISH AND WILDLIFE SERVICE LAND ACQUISITION POLICY

The Service acquires lands and interests in lands, such as easements, and management rights in lands, such as leases or cooperative agreements, consistent with legislation or other congressional guidelines and executive orders, to conserve fish and wildlife and 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 interests 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 acquisitions, 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.

G. PUBLIC PARTICIPATION

A news release announcing the availability of the Draft Environmental Assessment and Land Protection Plan for public review and comment was distributed on November 3, 2009. The news release summarized the proposed refuge expansion, invited comments from the public, and gave pertinent dates and other information needed for public review and comment on the proposal. Copies of the document were provided to affected landowners; federal, state, county, and local representatives, and other agencies; interested groups; and the general public on October 27, 2009. Two public meetings were held. One was held on November 17 at the Wakulla County Public Library. This meeting had 48 attendees. The second meeting

was held on November 19 at the Leon County Public Library. This meeting had 35 attendees. In addition, the acquisition proposal was discussed in a presentation at an Audubon meeting on October 27. This meeting had 45 attendees. Public comments were accepted until November 31, 2009. Comments were accepted until December 31, 2009 from sister agencies and the Florida State Clearinghouse.

We received 78 comments from the general public and 75 letters that expressed support for the acquisition program, of which 14 were also willing sellers. Three letters were from people opposed to the expansion. All three opponents were opposed on the basis of the possibility of the Flint Rock Management Area being closed to hunting. We do propose to allow hunting in the acquisition area.

The following state agencies expressed support for the acquisition through the Florida State Clearinghouse: Florida Department of Environmental Protection's Division of State Lands, the Northwest Florida Water Management District, Florida Department of Community Affairs, and Suwannee River Water Management District. The Florida Department of Environmental Protection expressed the concern that any cooperative agreements and leases used be enduring, perpetual arrangements until such time that more permanent, secure arrangements could be made.

Other organizations that expressed support for the expansion included: The Nature Conservancy (also a willing seller), Florida Chapter of The Wildlife Society, The Florida Natural Areas Inventory, St. Marks Refuge Association, Florida Trail Association, Blue Goose Alliance, Apalachee Audubon Society, and the Florida Wildlife Federation.

The Florida Department of State concurred with our determination that the undertaking would likely have no adverse effects on historic properties. It also concurred that if there were any actions that might affect cultural resources that the Service should coordinate with its office in carrying out appropriate site identification, evaluation, and protection measures in advance of such actions.

II. ALTERNATIVES INCLUDING THE PREFERRED 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 the following three alternatives.

A. ALTERNATIVE 1: NO ACTION

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

Under this alternative, the Service will 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 will be included in the approved acquisition boundary of the refuge. This is the preferred 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 could 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 will 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 will 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 (e.g., agricultural, residential);
- 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*

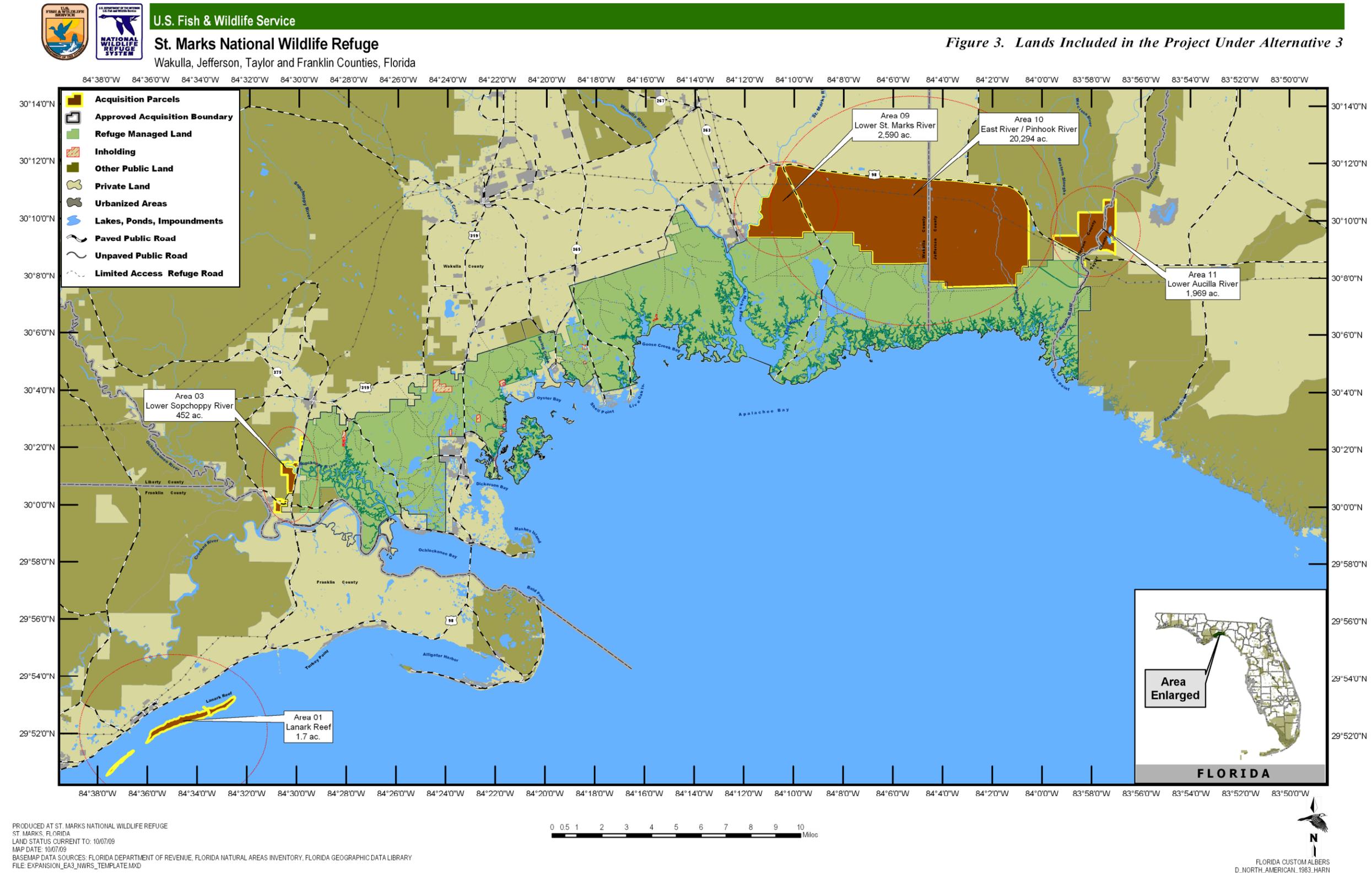
A fee title interest is normally acquired when: (1) The area's fish and wildlife resources require permanent protection not otherwise assured; (2) land is needed for visitor use development; (3) a pending land use could adversely impact the area's resources; or (4) it is the most practical and economical 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 will 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 will 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 will 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 will apply to this alternative.

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



III. AFFECTED ENVIRONMENT

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

A. GENERAL

The expansion boundary identified in the preferred 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 (i.e., 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, making St. Marks NWR ecologically significant.

The expansion lands are generally upland of the coastal lands and will provide a buffer to substantial wetlands and seagrass beds. The refuge is at the base of two watersheds (Ochlockonee and Aucilla Rivers) that originate in Georgia. Adding upland area to the refuge will 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 expansion also provides additional inland habitat to mitigate the anticipated sea level rise associated with global climate change. These properly restored and managed lands will provide essential habitat for wildlife forced to move inland due to the changing coastline.

As the sea level rises due to climate change, lands in the expansion area immediately north of the refuge will be ever more critical to the survival and management of refuge wildlife. Populations of many species, including flatwoods salamanders and bald eagles, will need to expand into the restored habitats to prevent population fragmentation and eventual extirpation. These lands will also become more important as wildlife corridors between undeveloped lands as coastal forests are lost.

The report on the Sea-level Affecting Marshes Model (SLAMM) (Clough 2008) examined vegetation changes within the refuge under four sea level rise scenarios (SLR). While the scenarios only included lands within the existing refuge boundaries, some results may be extrapolated to the acquisition areas. The first scenario A1B Mean predicts 40 cm SLR by 2100, which has little credence in the literature at this point because of evidence that sea levels are rising more rapidly than this scenario predicts. The still conservative A1B Max scenario (SLR of 49 cm by 2075 and 69 cm by 2100) predicts that by 2075 and definitely by 2100 the transitional salt marsh and salt marsh communities are up against the southern boundary of Area 10. In the 1 m SLR Scenario (48 cm and 1 m, respectively), by 2100, salt marsh extends north of the Area 10 boundary. In the 1.5 m scenario, Clough references the Rahmsdorf (2007) Science paper that suggests that 50-140 cm is a "feasible range by 2100," transitional salt marsh is likely to extend up into Area 10 by

2050, salt marsh by 2075, and tidal flats by 2100. Under this last scenario, all of the refuge south of Area 10 is predicted to be open water or tidal flats.

For all these scenarios, vast areas that are now forested swamp diminish significantly. On the east side of the refuge, including the area directly south of Area 10, virtually no forested area is predicted to remain even under the A1B Max scenario. If these forests can migrate as sea level rises, which could be facilitated through restoration activities, Area 10 will likely provide both higher ground for forests and the link to the Aucilla WMA, which extends further north. Birds, Florida black bear, and other species requiring forested habitat will follow the vegetation migration. Conversely, species requiring estuarine open water, tidal flats, and salt marsh will have increased habitat within the refuge.

Similar impacts are predicted for several other areas. However, Areas 1 (not included in Clough modeling) and 4 might be under such a high inundation threat that acquisition may not be a high priority unless development threat in the short-term is so high that acquisition will still be desirable. Given the importance of Area 1 for sea bird nesting, other areas are likely to have similar habitat when sea levels rise and may increase in priority.

B. VEGETATION AND LAND USE

Figures 4a and 4b portray the habitats associated with the 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 forests support 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, 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 lands in this expansion is in this condition. Much of the former longleaf pine forests is now in slash pine or loblolly pine plantations for timber production. These lands will be a focal point for the development of longleaf pine community restoration under the Land Management Research and Demonstration Program and will showcase the Service's Strategic Habitat Conservation Initiative. Area 10 contains at least six former red-cockaded woodpecker territories and sufficient foraging area to support reintroduction of this species with proper restoration and management. The addition of this area will assist the refuge in meeting its conservation objectives for the red-cockaded woodpecker.

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

HABITAT TYPES	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 expansion project under Alternative 2 (Map 1)

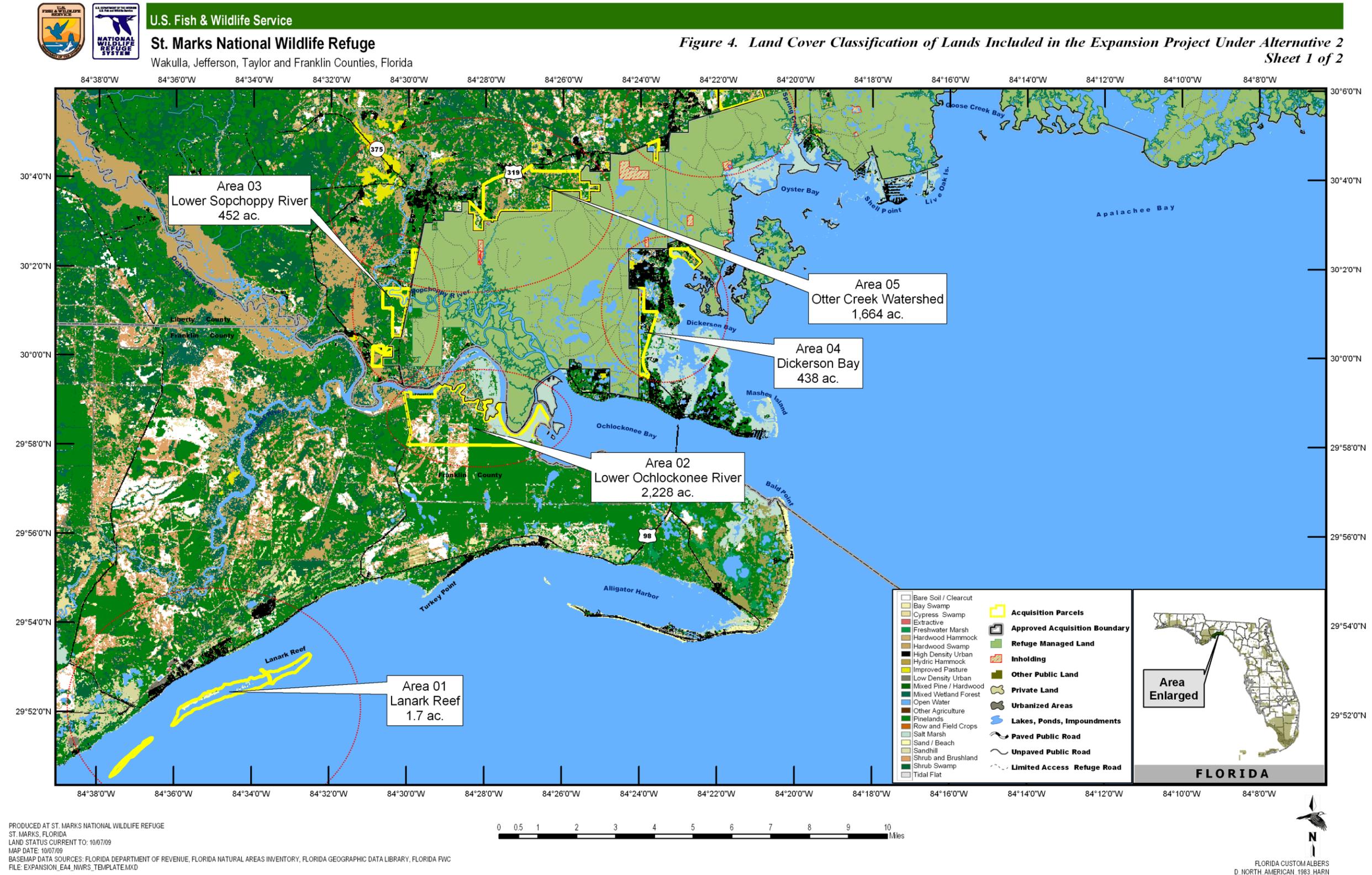
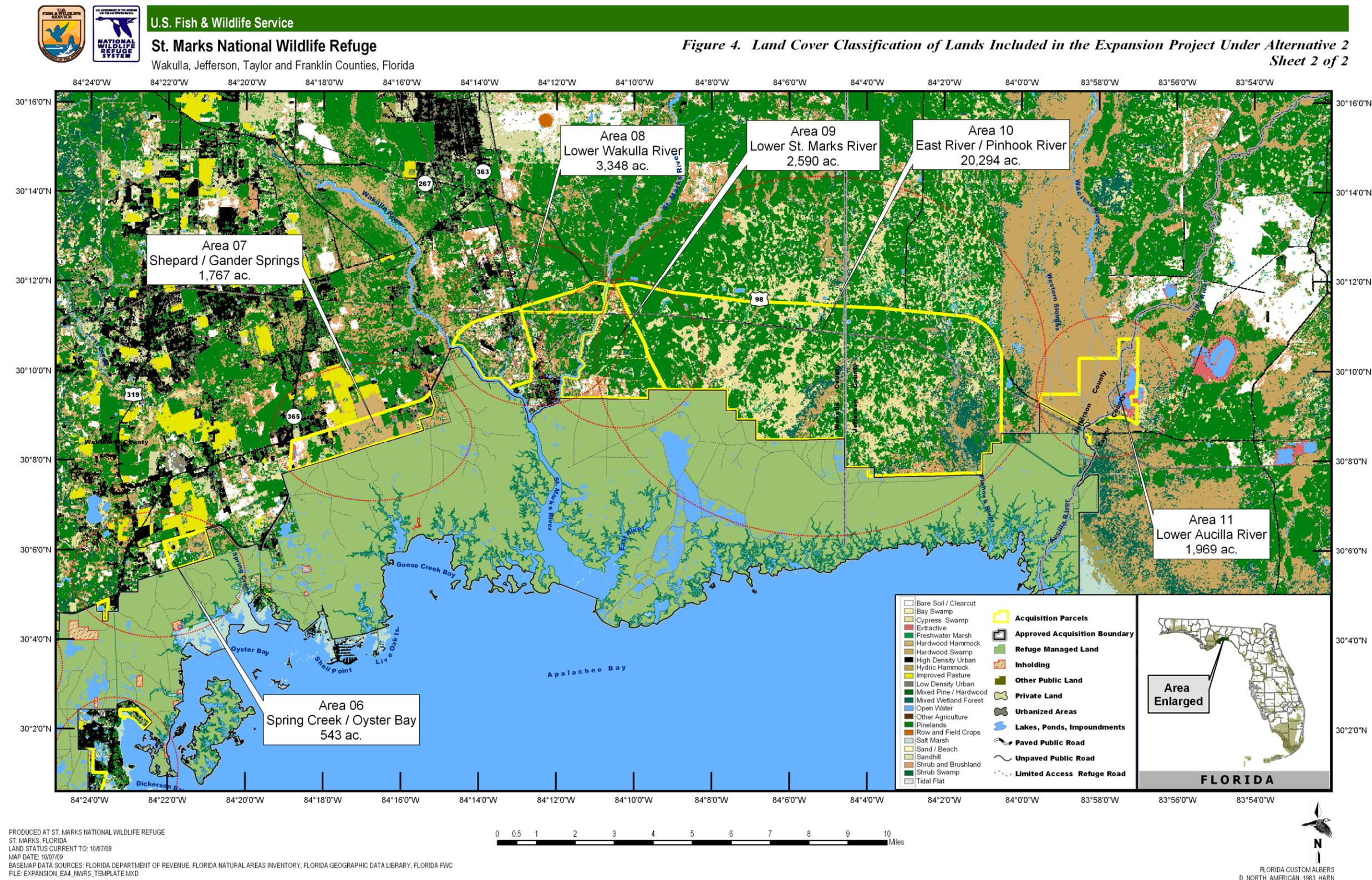


Figure 4b. Land cover classification of lands in the expansion project under Alternative 2 (Map 2)



Mixed wetland forests (palustrine forests) 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 floodplain 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 marsh (or palustrine) 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, 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 acquisition areas. Table 2 depicts the results of these record 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 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 (e.g., red-cockaded woodpecker; wood stork; Florida manatee; and Kemp's ridley, leatherback, and green sea turtles) and four federally listed threatened species (e.g., 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 (e.g., Florida black bear, least tern, and gopher tortoise). All of these listed species are known to occur or have once occurred in the 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 is protected as well.

Figure 5 depicts a Florida Black Bear Potential Habitat Model created by the Florida Fish and Wildlife Conservation Commission to identify gaps in the existing statewide system of wildlife conservation areas, and to provide information for 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 are 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 SHCA for the Florida Black Bear includes all or portions of Acquisition Areas 2-11, and provides important habitat for five imperiled bird species (e.g., 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; and 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 will 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 areas 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 expansion: Florida Fish and Wildlife Conservation Commission black bear habitat conservation priorities

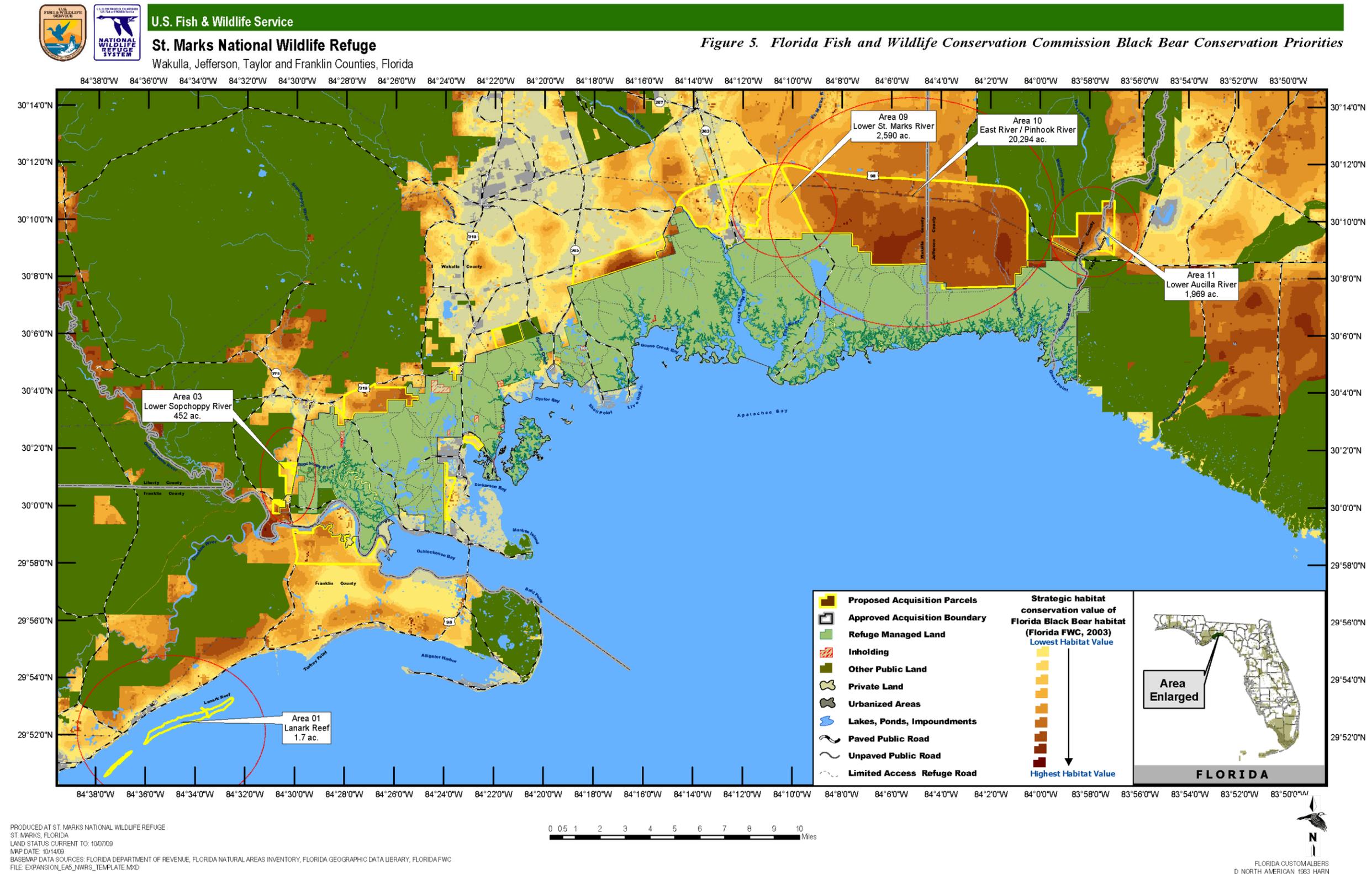
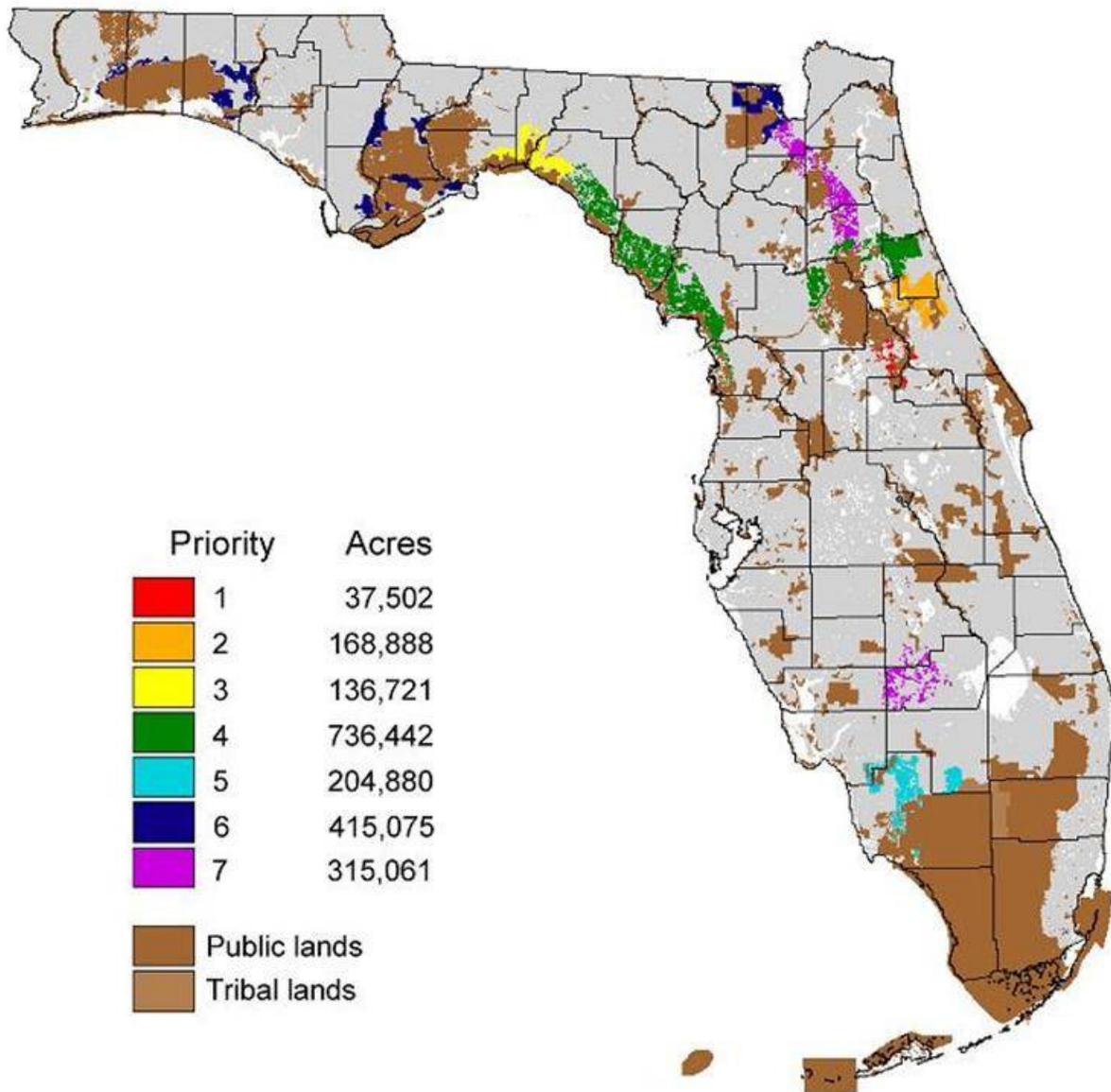


Figure 6. Florida Forever Black Bear Working Group Land Acquisition Priorities for Florida Black Bear

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 SHCA 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. Large land areas of more than 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 these lands will provide for the restoration of native pineland and the long-range reestablishment of red-cockaded woodpecker clusters that will 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. Its 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 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 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, at least two of which extend into the expansion areas to the north (Areas 9 and 10, Figure 7). The addition of these areas will 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. Acquisition and management of these lands will 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. A total of 86 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 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.

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 will 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 have 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 benefitting the impoundments, the fisheries of the Aucilla, St Marks, Wakulla, Sopchoppy, and Ochlockonee Rivers, as well as the fishery of Apalachee Bay, will benefit from the protection of lands that currently buffer the rivers and bay from water quality degradation caused by industrial, commercial, or residential uses.

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.

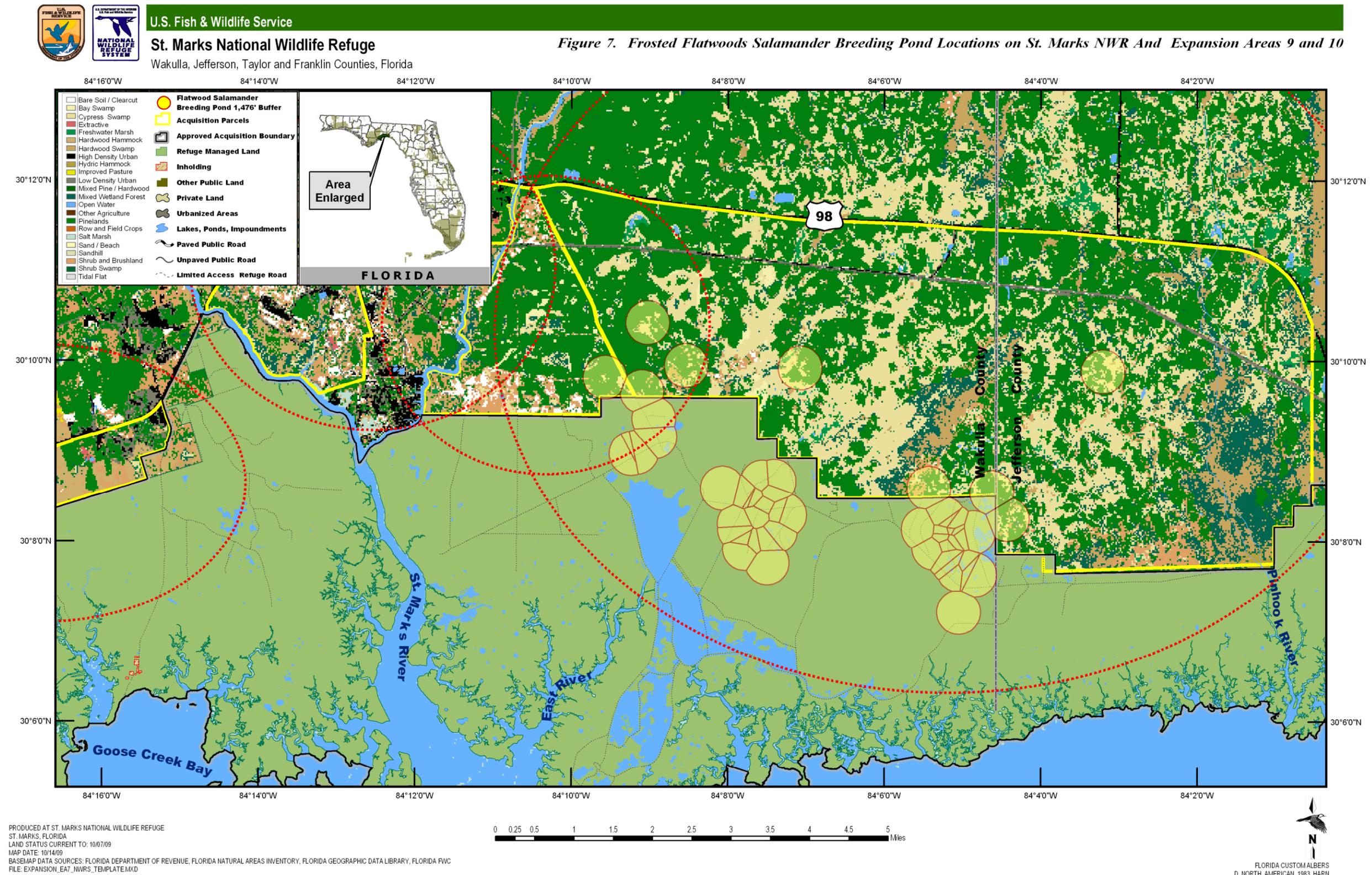
The expansion of St. Marks NWR will result in more educational and recreational opportunities and protect aquatic resources of the area that are a major draw for tourism to the Big Bend of Florida and a significant quality of life benefit to local residents. The lands will enhance the development of 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, and wildlife observation and photography.

F. CULTURAL RESOURCES

The St. Marks NWR, adjoining lands, and much of the Big Bend Region of Florida are rich in cultural resources dating back to at least the Paleoindian Period (13,000 – 7,900 B.C.). Many cultural sites are known to exist on the refuge and 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., historical, architectural, and archaeological) that are listed or eligible for listing in the National Register of Historic Places (NRHP).

The Service believes that the acquisition of lands will 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 will 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 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 will 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 will not permit any development that will violate the state's water quality standards.

However, there is no assurance that the protection offered by these regulations will 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 will alter the wetlands in the 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" will adversely impact the area's valuable fish, waterfowl, and wildlife habitats. The management of the impoundments will 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 will continue to be lost to development and important bear and other wildlife corridors will be reduced or eliminated. Management of current refuge lands will 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 (PREFERRED ALTERNATIVE)

Under this alternative, the Service will 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 recommended methods of acquisition are summarized in Chapter VI.

The purpose of the project is 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 project, the location of the site, and the current land use, the preferred alternative will not have any significant effects on the quality of the human environment, including public health and safety. Further, because the purpose of the project is to protect, maintain, and where possible, enhance the natural habitat of the lands within the acquisition areas, the project 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 preferred alternative will not involve any highly uncertain, unique, unknown, or controversial effects on the human environment. The action will not establish a precedent for future actions with significant effects, nor will it represent a decision in principle about a future consideration. No cumulatively significant impacts on the environment are anticipated.

In addition, the project will 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 project will not significantly affect any site listed in or eligible for listing in the National Register of Historic Places, nor will it cause loss or destruction of significant scientific, cultural, or historic resources. The area's cultural resources will 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 will be contacted whenever any management activities have the potential to affect cultural resource sites.

All tracts acquired by the Service in fee title will 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 additional annual revenue-sharing payment that will be made to Wakulla County, depending on the amount of acreage acquired in fee title, will be up to \$557,850 at the fully funded level of the Act. For Jefferson County, the annual payment will 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 will be taken that will lead to a violation of federal, state, or local laws imposed for the protection of the environment.

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

Under this alternative, the Service will 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) will 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 PREFERRED ACTION

The Service's preferred alternative (Alternative 2) will 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 project areas.

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 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 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 will 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 defensible locations.

Priority Group III

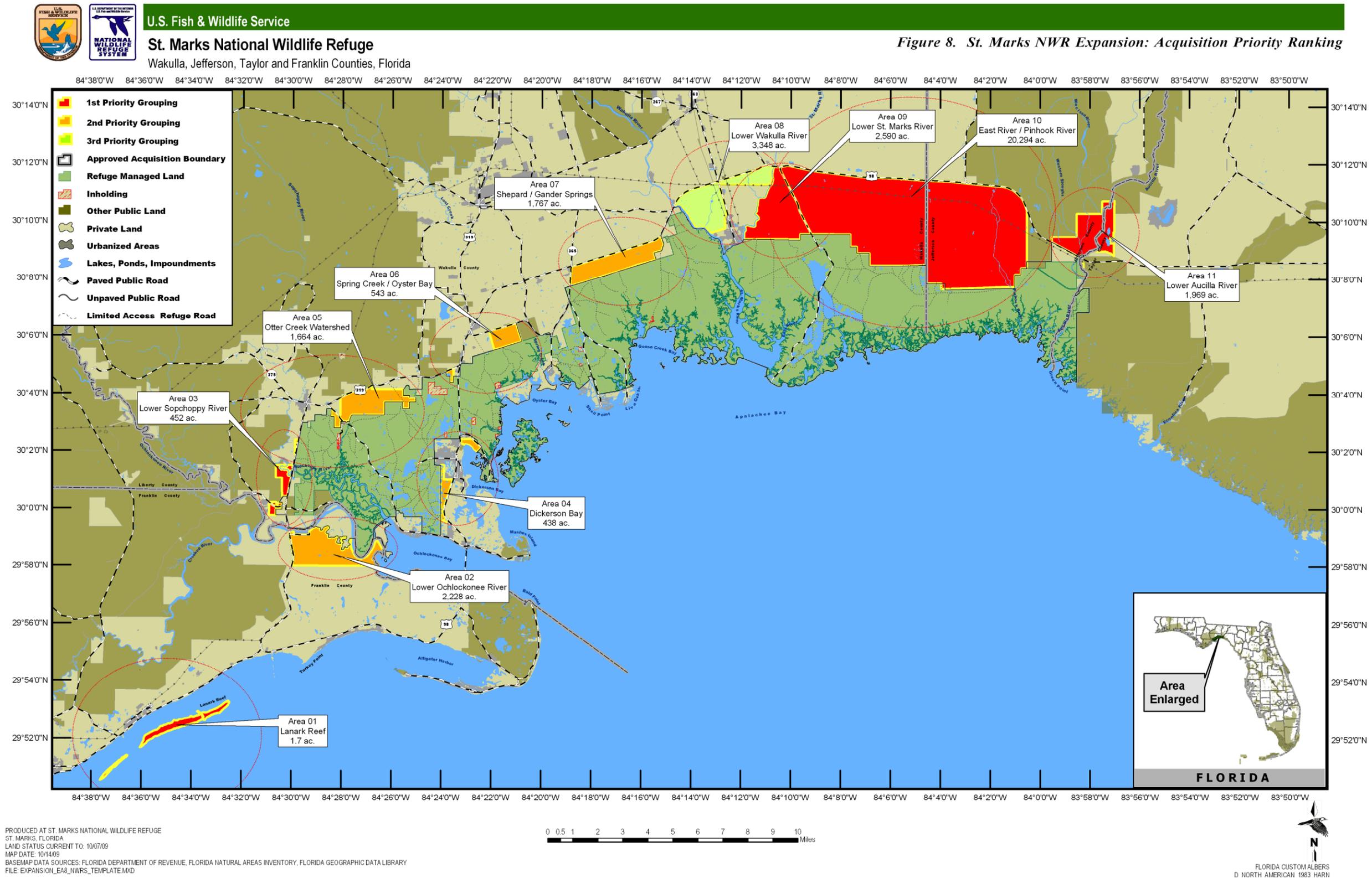
Priority Group III includes lands between the St. Marks and Wakulla Rivers that could provide additional wildlife corridors and buffers to the St. Marks and Wakulla Rivers.

Table 3. Protection priorities and recommended methods of acquisition

PRIORITY GROUP	AREA NUMBER	ACREAGE (APPROX.)	COUNTY(IES)	OWNERSHIP	APPROX. NO. OF OWNERS	APPROX. NO. OF PARCELS	METHOD OF ACQUISITION
1	1	1.7	FRANKLIN	PRIVATE	1	1	Donation/Mgt Agreemt
	3	452	WAKULLA	PRIVATE	47	78	Fee Title/Mgt Agreemt
	9	2,590	WAKULLA	PRIVATE	18	37	Fee Title/Mgt Agreemt
	10	20,294	WAKULLA JEFFERSON	TNC/PRIVATE	7	72	Fee Title/Mgt Agreemt
	11	1,969	TAYLOR JEFFERSON	PRIVATE	11	29	Fee Title/Mgt Agreemt
2	2	2,228	FRANKLIN	PRIVATE	1	5	Fee Title
	5	1,664	WAKULLA	PRIVATE	83	121	Fee Title
	6	543	WAKULLA	PRIVATE	5	7	Fee Title/Mgt Agreemt
	4	438	WAKULLA	PRIVATE	30	43	Fee Title/Mgt Agreemt
	7	1,767	WAKULLA	PRIVATE	84	191	Fee Title

PRIORITY GROUP	AREA NUMBER	ACREAGE (APPROX.)	COUNTY(IES)	OWNERSHIP	APPROX. NO. OF OWNERS	APPROX. NO. OF PARCELS	METHOD OF ACQUISITION
3	8	3,348	WAKULLA	PRIVATE	10	55	Mgt Agreement/
TOTALS		35,295			297	639	

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



Appendix A. Conceptual Management Plan

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

INTRODUCTION

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

The expansion will 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, 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.

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.

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.

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.

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.)

REFUGE ADMINISTRATION

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

The administrative headquarters for the 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 expansion lands are generally upland of the coastal lands and will 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 will 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 expansion also provides additional inland habitat to mitigate the anticipated sea-level rise associated with global climate change. These properly restored and managed lands will provide essential habitat to wildlife forced to move inland due to the changing coastline.

Native pine forests are 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 forests support a unique assemblage of resident and neotropical migratory birds, reptiles, amphibians, and plants, as well as numerous other species that 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, 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 red-cockaded woodpecker territories and sufficient foraging area to support reintroduction as site management increases. The addition of this area will assist the refuge in meeting its conservation objectives for this species. While much of Florida's native longleaf pine communities has been replaced with loblolly or slash pine for timber, the purchase of these pinelands will provide an opportunity for restoration over time. These lands will be a focal point for the development of longleaf pine community restoration under the Land Management Research and Demonstration Program and will showcase the Service's Strategic Habitat Conservation Initiative.

Mixed wetland forests (e.g., palustrine) 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 floodplain 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. Salt 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.

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

FISH AND WILDLIFE POPULATION MONITORING

Periodic surveys will be conducted on the expansion areas to document the occurrence of species, and to assess population numbers and habitat use. Surveys will 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 will 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 purposes of the refuge. Public use opportunities on the refuge will likely include both consumptive uses (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, will be adopted to achieve the management goals of 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 will be permitted.
- Discharging firearms will be prohibited except during established hunting seasons in areas open to hunting. Possession of firearms will conform to and be consistent with state laws.
- Collecting any plant or animal will be prohibited unless otherwise specified.

-
- 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 will be prohibited.
 - Entering or remaining on the refuge while under the influence of alcohol or drugs will 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 expansion area will 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 will 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 will clearly indicate the opened 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 will 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 will be determined by safety, management needs, wildlife populations, size of areas, location, and public need. Refuge-specific hunting regulations will be coordinated in annual meetings with the Florida Fish and Wildlife Conservation Commission.

Certain areas within the 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 will be prohibited.

Fishing

Fishing will be permitted within the framework of state regulations and licensing requirements. Boats will 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 will be prohibited.

Wildlife Observation and Photography

Wildlife observation and photography will 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 will depend upon the availability of funds.

Environmental Interpretation and Education

Environmental education and interpretation programs will be designed to enhance the visitor's understanding of natural resource management and ecological concepts. The 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 will 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 will 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 will work closely with other law enforcement agencies and complement their efforts.

FACILITIES MANAGEMENT

Boundaries of lands acquired will 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 will inventory the archaeological and historical sites on the expansion area lands and assess their eligibility for listing on the National Register of Historic Places. Management will 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, will be aggressively suppressed unless such natural fires are a part of an approved fire management plan. Protection and safety of people and properties are top priorities 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 has also acquired land through timber-for-land 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 designated as in-holdings.

Pest Management

It is Service policy to control those weeds and other plants listed as noxious by the state. This control will emphasize non-chemical methods and will 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 expansion lands and the completion of an amendment to the Comprehensive Conservation Plan for St. Marks National Wildlife Refuge (November 2006).

All lands of the National Wildlife Refuge System will be managed in accordance with an approved comprehensive conservation plan that will guide management decisions and set forth strategies for achieving refuge purposes. The plan 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 plan is to provide a basis for determining the compatibility of secondary uses on refuge lands. An amended plan will be completed within two 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 in 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.

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.

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.

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.

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 historical 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 uses (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 expansion lands 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 revision of the comprehensive conservation plan, the Service will gather public data, conduct surveys to estimate fish and wildlife populations, and fully assess public use impacts on the resources.

Listed below are a general description of the types and estimated levels of wildlife-dependent recreational activities that are proposed on the acquisition lands 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 lands are acquired and the public and conservation groups become aware of their excellent wildlife observation opportunities, an increase in non-consumptive wildlife-dependent visits is expected.

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 habitat and wetland values. Therefore, the anticipated levels of wildlife observation/photography activities are considered to be compatible with the purposes of the refuge.

Fishing

The expansion areas include numerous accesses to river systems. Fishing for largemouth bass, bream, and catfish is good and 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 expansion areas. 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) will be controlled through effective law enforcement. Some sensitive areas may have limited access and use if disturbance becomes a problem.

Sport fishing is very popular in the area. Allowing the public to fish on the expansion areas will result in a positive public opinion and will help build support for the Service and its natural resource conservation agenda. It will 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 of the refuge.

Hunting

The expansion areas contain a diversity of habitat types and a variety of wildlife species. A large portion of the expansion areas 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 will 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 refuge.

Environmental Interpretation and Education

Environmental education and interpretive programs will be designed to enhance the visitor's understanding of natural resource management and ecological concepts. The expansion areas could serve as important outdoor classrooms for the area's local schools. Teacher workshops may be offered to enhance ongoing environmental education programs. Interpretive programs will 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 areas will serve as demonstration sites for longleaf pine ecosystem restoration.

The projected level of environmental interpretation and education is considered to be compatible with the purposes of the 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 expansion lands. During the revision of the comprehensive conservation plan, the Service will 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 in making 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 could occur within the approved acquisition boundary of St. Marks NWR is compatible with the purposes for which the refuge was established.

There has been substantial historical use of the wetland areas 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 revision of the Comprehensive Conservation Plan for St. Marks National Wildlife Refuge, which will be completed with appropriate public input, the Service will 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 (e.g., 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 will be open for public use during daylight hours only.
- Air thrust boats will be prohibited.
- Hunting from permanent tree stands and blinds will be prohibited.
- Baiting or hunting with the aid of bait will be prohibited.
- Hunting deer with dogs will not be allowed on the refuge.
- No camping will be allowed unless associated with the Florida National Scenic Trial.

When the comprehensive conservation plan is amended, 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 refuge and meet one of the 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 purposes of the refuge and meet one of the 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: James T. Girard 3/11/2010
(Signature/Date)

Acting **Refuge Supervisor:** Hoeh T. Abouqut 3/25/10
(Signature/Date)

Regional Compatibility Coordinator: Camela Har 3-21-10
(Signature/Date)

Acting **Regional Chief, National Wildlife
Refuge System, Southeast Region:** Steven G. Seibert 3/26/10
(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

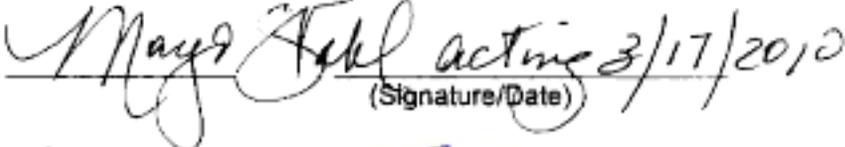
Purpose(s) for Which the Refuge was Established: “as a refuge and breeding ground for wild animals and birds” (Executive Order 5740);
“for use as an inviolate sanctuary, or for any other management purpose, for migratory birds.” (Migratory Bird Conservation Act);
“suitable for (1) incidental fish and 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 regulations; (2) recreational fishing of freshwater fish species (e.g., largemouth bass, bream, catfish, and crappie) and saltwater species (e.g., trout, redfish, mullet, and scallops) in accordance with state 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:  3/11/2010
(Signature/Date)

Refuge Supervisor: 
(Signature/Date)

Regional Chief, National Wildlife Refuge System, Southeast Region:  3-19-10
(Signature/Date)

Appendix D. Finding of No Significant Impact

For the Expansion of St. Marks National Wildlife Refuge

The U.S. Fish and Wildlife Service (Service) will protect and manage certain fish and wildlife resources in Wakulla, Jefferson, Franklin, and Taylor Counties, Florida, through the expansion of St. Marks National Wildlife Refuge (NWR). The Service analyzed three alternatives for managing the expansion lands and has included this analysis in this Environmental Assessment (EA). These alternatives are as follows:

- Alternative 1: No Action
- Alternative 2: Protection and Management of up to 35,295 Acres by Fish and Wildlife Service (Preferred Alternative)
- Alternative 3: Protection and Management of up to 25,307 Acres by Fish and Wildlife Service

The preferred alternative was selected over the other alternatives because it offers full protection of the natural resource values of the upland pine forests, wetlands, and coastal habitats. It will protect these resource values for the benefit of many species of fish and wildlife, including flatwoods salamanders, red-cockaded woodpeckers, wintering waterfowl, shorebirds, wading birds, marshbirds, neotropical migratory birds, Florida black bears, rare plants, and other wildlife.

The implementation of the expansion plan is not expected to have any adverse effects; therefore, measures to mitigate and/or minimize adverse effects were not incorporated in this EA.

The project is not expected to have any significant adverse effects on wetlands and floodplains, pursuant to Executive Orders 11990 and 11988 (page 36).

The project has been thoroughly coordinated with all interested and/or affected parties. Parties contacted include:

- All affected landowners
- Congressional representatives
- Florida State Clearinghouse
- Florida State Historic Preservation Officer
- Interested citizens and organizations
- Florida Department of Environmental Protection
- Local community officials
- Governor of Florida

Copies of the EA are available by contacting:

Ms. Rosamond A. Hopp
U.S. Fish and Wildlife Service
Branch of Refuge Planning
1875 Century Boulevard, Suite 420
Atlanta, Georgia 30345

Therefore, it is my determination that the project does not constitute a major federal action significantly affecting the quality of the human environment under the meaning of Section 102(2)(c) of the National Environmental Policy Act of 1969 (as amended). As such, an environmental impact statement is not required. This determination is based on the following factors (40 CFR 1508.27):

1. Both beneficial and adverse effects have been considered and this action will not have a significant effect on the human environment (page 36).
2. The action will not have a significant effect on public health and safety (page 36).
3. The project will not significantly affect any unique characteristics of the geographic area (page 36).
4. The effects on the quality of the human environment are not likely to be highly controversial (page 36).
5. The action does not involve highly uncertain, unique, or unknown environmental risks to the human environment (page 36).
6. The action will not establish a precedent for future actions with significant effects nor will it represent a decision in principle about a future consideration (page 36).
7. There will be no cumulatively significant impacts on the environment (page 36).
8. The action will not significantly affect any site listed in, or eligible for listing in, the National Register of Historic Places, nor will it cause loss or destruction of significant scientific, cultural, or historical resources (page 36).
9. The action is not likely to adversely affect threatened or endangered species or their habitats (Section 7 Consultation).
10. The action will not lead to a violation of federal, state, or local laws imposed for the protection of the environment (page 36).

References:

Draft Environmental Assessment and Land Protection Plan for the Proposed Expansion of St. Marks National Wildlife Refuge, U.S. Fish and Wildlife Service, Southeast Region, Atlanta, Georgia.



for Cynthia K. Donner
Regional Director



Date