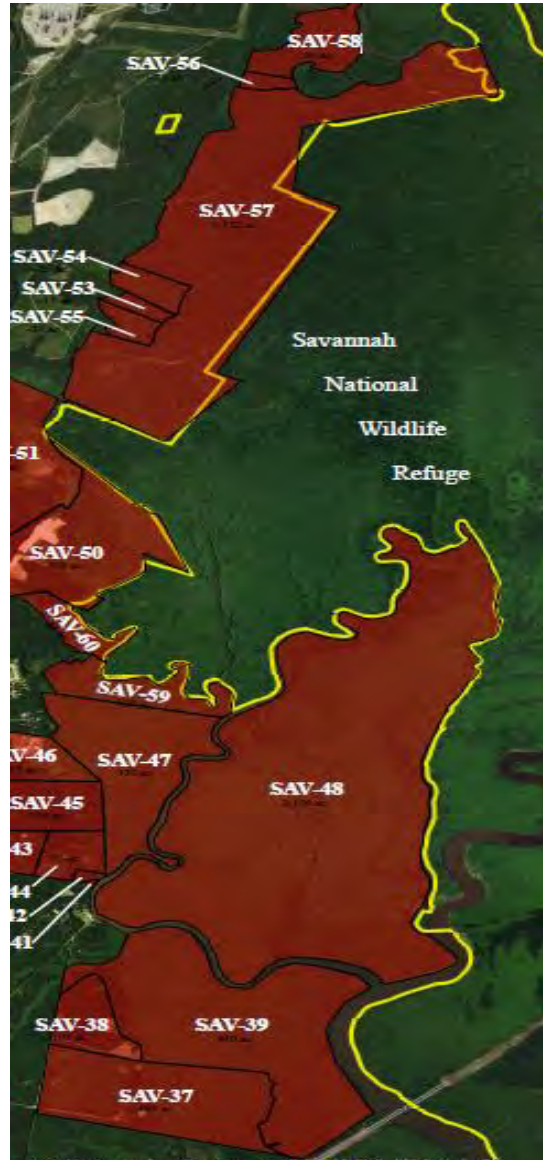


SAVANNAH HARBOR EXPANSION PROJECT ACQUISITION OF WETLAND MITIGATION LANDS FINAL REPORT



SAVANNAH DISTRICT
MAY 2017



SAVANNAH HARBOR EXPANSION PROJECT ACQUISITION OF WETLAND MITIGATION LANDS CLOSEOUT REPORT

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ATTACHMENTS

- 1 Final EA and Land Protection Plan for Proposed Expansion of SNWR
- 2 Maps of Savannah National Wildlife Refuge's Acquisition Plan
- 3 National Wetland Inventory Maps and Descriptions
- 4 Memorandum of Agreement between USACE, USFWS, GADOT and GPA
- 5 Quitclaim Deed from GADOT to Savannah NWR for SLF III
- 6 Limited Warranty Deed for Abercorn Island

SAVANNAH HARBOR EXPANSION PROJECT ACQUISITION OF WETLAND MITIGATION LANDS CLOSEOUT REPORT

Project Background:

The Savannah Harbor Expansion Project (SHEP) includes features to mitigate for adverse impacts to wetlands from the channel deepening. Flow-rerouting features within the estuary will mitigate most of those impacts. The remaining impacts are to be mitigated by acquisition and preservation of existing wetlands within the estuary.

U.S. Army Corps of Engineers (USACE) used the Savannah District Regulatory Standard Operating Procedures (SOP) to quantify the mitigation requirements for the remaining wetland impacts. That SOP was developed by natural resources agencies to evaluate impacts and mitigation on Regulatory projects requiring Section 404 permits. Using the SOP, USACE calculated the preservation requirements of 2,245 acres for a channel depth of 47 feet, the approved plan. Appendix C of SHEP Final Environmental Impact Statement (EIS) (Sections V B. Preservation and VI Mitigation Plans) contains details of that analysis:

<http://www.sas.usace.army.mil/Missions/Civil-Works/Savannah-Harbor-Expansion/Final-Environmental-Impact-Statement/>.

The United States Fish & Wildlife Services (USFWS) and the Savannah National Wildlife Refuge (Refuge) identified properties within the estuary that they believe are ecologically valuable and would provide positive contributions to the goals of the Refuge and enhance the area's fish and wildlife resources. Table 1 shows the priorities of the USFWS that they expressed during development of the 2012 General Re-evaluation Report and Final EIS.

The most recent version of the Refuge's Acquisition Plan is dated July 2007 and is included in the document titled "Final Environmental Assessment and Land Protection Plan; Proposed Expansion of Savannah National Wildlife Refuge", in Attachment 1. Attachment 2 contains maps that show the properties in the approved Acquisition Plan.

In the 2012 SHEP Final EIS, USACE stated it would acquire lands from the Refuge's Acquisition Plan and provide them to the USFWS to manage as additions to the Refuge. That action would mitigate for the wetland impacts that would remain after the flow-rerouting features are implemented. The Refuge has the authority to accept the lands, since they are included in the Refuge's approved Acquisition Plan. The USFWS would manage these properties using funds obtained through the Department of Interior's normal budget process.

Table 1: Lands that could be acquired and managed as mitigation for the Savannah Harbor Expansion Project

USFWS/Corps Ranking	USFWS Tract Designation	Size (Acres)	Ownership
1	40	1,989.42	Dixie Plywood
2	Hardeeville Tract	973	JPR Land Company
3	42	6.41	Town of Hardeeville
4	29m	?	International Paper Company
5	43	16	Seaboard Coastline RR
6	46	24.6	Restful, Inc.
7	45	7.8	D & M Enterprises
8	44	24	Billy H. Dean
9	36,a-d	1,122	DMD Co.
10	29t	728	Union Bag Camp Company
11	48	405	Billy Exley
12	33	52	Bradley et al., William P.
13	52	127.63	Troy T. Bacon
14	37	388	Billy Exley
15	53	121.9	John E. Hill
16	Poindexter/Clydesdale Plantation	720	Robby Harrison, et.al.
17	56 and 57	1555.8	Robby Harrison

Although there are 45,836 acres in the Refuge's approved Acquisition Plan, not all of those properties would provide the type of habitat that is desired as mitigation for this project. SHEP committed to acquire properties from the Refuge's Acquisition Plan that are dominated by freshwater wetlands. Attachment 3 shows the National Wetland Inventory maps for the SLF III tract and Abercorn Island, with a description of the types of wetlands found on the site.

Recent Progress:

USACE consulted with the Refuge and leaned heavily on the Refuge's priorities for valuable mitigation lands. The Refuge provided the following as their priority list for the acquisitions:

1. Abercorn Island
2. Billy Exley-Mill Creek
3. DMD, Co.
4. Ag South Farm Credit (Del-a-Rae)

The State of Georgia (Georgia Department of Transportation (GADOT)), as the non-federal sponsor for SHEP, began the process of acquiring these preservation lands in 2013 (the first year that Congress provided construction funds). Their goal was to complete the acquisitions in two years. The legal requirement is for all the lands to be acquired before the channel deepening is complete.

GADOT spoke with several property owners about their willingness to sell and entered into negotiations with them, including obtaining cost appraisals for some tracts. In November 2014, the USFWS informed USACE that they would only accept lands that had been acquired from willing sellers. Attachment 4 contains an agreement between USACE, USFWS, GADOT and the Georgia Ports Authority (GPA) concerning the transfer of SHEP mitigation lands to the Refuge. The requirement for acquisition from willing sellers greatly limited GADOT's ability to acquire properties at fair market value, which is a requirement for federal crediting and reimbursement.

Properties Acquired:

1. SLF III

The GADOT acquired the first property – known as SLF III -- in 2015. That property is shown on the Refuge acquisition maps (Figure 1) as Tracts SAV-62, 63, 65, 66, and 74. The 175-acre tract was part of a larger purchase that the State and the Refuge jointly funded.

Figure 2 shows the National Wetland Inventory for the SLF III site. The property primarily consists of uplands. Attachment 3 provides descriptions of the wetlands found on the site.

Attachment 5 contains the Quitclaim Deed for the SLF III property. The property was transferred to the USFWS on December 22, 2015. Page 2 of the deed states that the 175.06 acres are “partial fulfillment of wetland mitigation in the Savannah Harbor Expansion Project.”

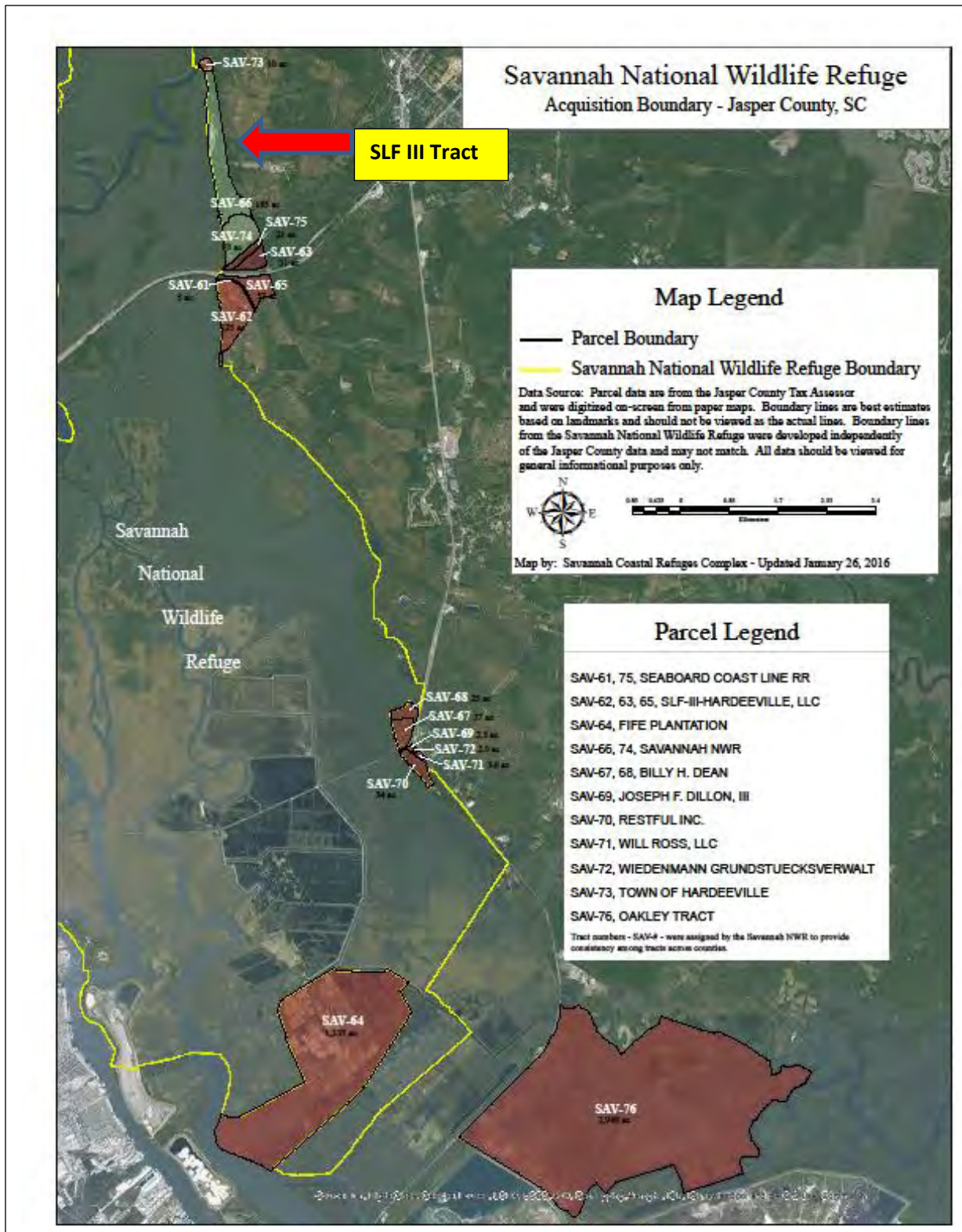
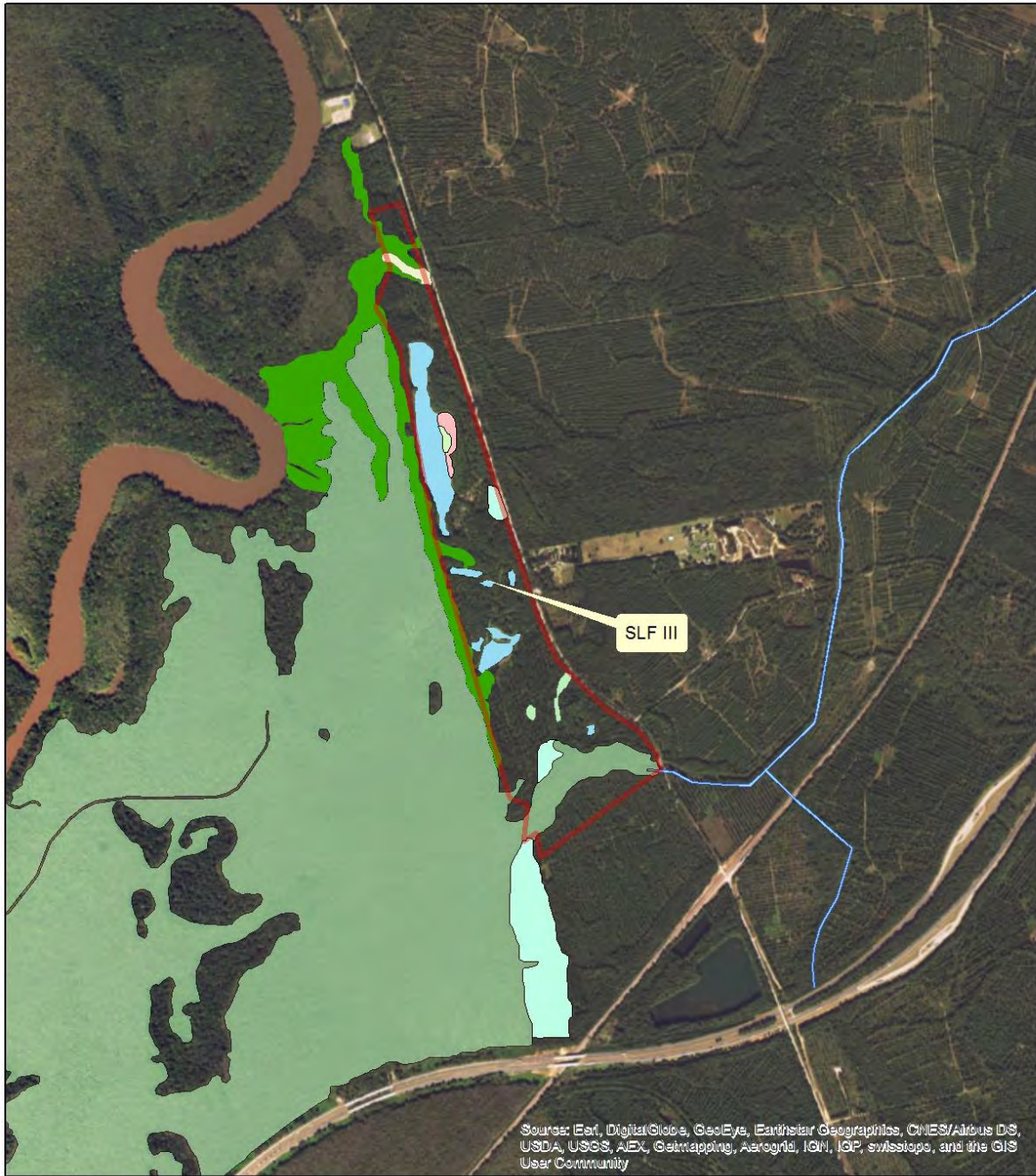


Figure 1: Refuge Acquisition Map Containing SLF III Tract



SLF III Mitigation Site

0 0.125 0.25 0.5 Miles



Figure 2: National Wetland Inventory Map of SLF III Tract

2. Abercorn Island

Abercorn Island is included in the Refuge's Acquisition Plan and is shown in their maps as Tract SAV-48 (Figure 3). The USFWS identified acquiring Abercorn Island as its top priority tract for acquisition by SHEP and addition to the Refuge. As a result, GADOT pursued acquiring this property. Figure 4 shows the 2,081-acre property. Attachment 3 shows the National Wetland Inventory maps for Abercorn Island and a description of the types of wetlands found on the site.

In December 2015, GADOT formally requested USACE consider payment above the appraised value for this property. Savannah District transmitted the request to the USACE South Atlantic Division, who subsequently forwarded the request to HQUSACE in Washington. In September 2016, Savannah District received approval from HQUSACE to credit the sponsor up a specified amount if it acquired this property.

Terracon Environmental performed a Phase I Environmental Site Assessment for the property, which was dated December 2016. The USFWS staff visited the island in January 2017 to inspect the road system and confirm there were no additional hazardous materials disposed on the property. They observed an abandoned 30-foot trailer and small amount of common household debris as the only refuse along the island's road system. They stated that past land use did not indicate any problems associated with contaminants. They saw no problem with incorporating the Abercorn Island tract to the existing public Refuge lands and stated that the property would complement management goals and integrity of the Refuge. As a result, the USFWS approved the Phase I document on January 31, 2017. Savannah District concurred in its acceptability on February 1, 2017.

Figure 5 shows the National Wetland Inventory map for Abercorn Island. The property is comprised of nontidal forested wetlands, primarily of lands coded "PFO1/2F" which are described as follows:

P System PALUSTRINE: The Palustrine System includes all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0.5 ppt. It also includes wetlands lacking such vegetation, but with all of the following four characteristics: (1) area less than 8 hectares (20 acres); (2) active wave-formed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than 2.5 meters (8.2 feet) at low water; and (4) salinity due to ocean-derived salts less than 0.5 ppt.

FO Class FORESTED: Characterized by woody vegetation that is 6 meters tall or taller.

1 Subclass Broad-Leaved Deciduous: Woody angiosperms (trees or shrubs) with relatively wide, flat leaves that are shed during the cold or dry season; e.g., black ash (*Fraxinus nigra*).

2 Subclass Needle-Leaved Deciduous: This subclass, consisting of wetlands where trees or shrubs are predominantly deciduous and needle-leaved, is represented by young or stunted trees such as tamarack or bald cypress.

F Water Regime Semi-permanently Flooded: Surface water persists throughout the growing season in most years. When surface water is absent, the water table is usually at or very near the land surface.

GADOT acquired Abercorn Island on February 28, 2017. Attachment 6 contains a legal description of the Limited Warranty Deed for Abercorn Island. GADOT is transferring Parcel 1 (Exhibit A in the Warranty Deed) to the USFWS for this mitigation requirement. That parcel is approximately 2,081 acres.

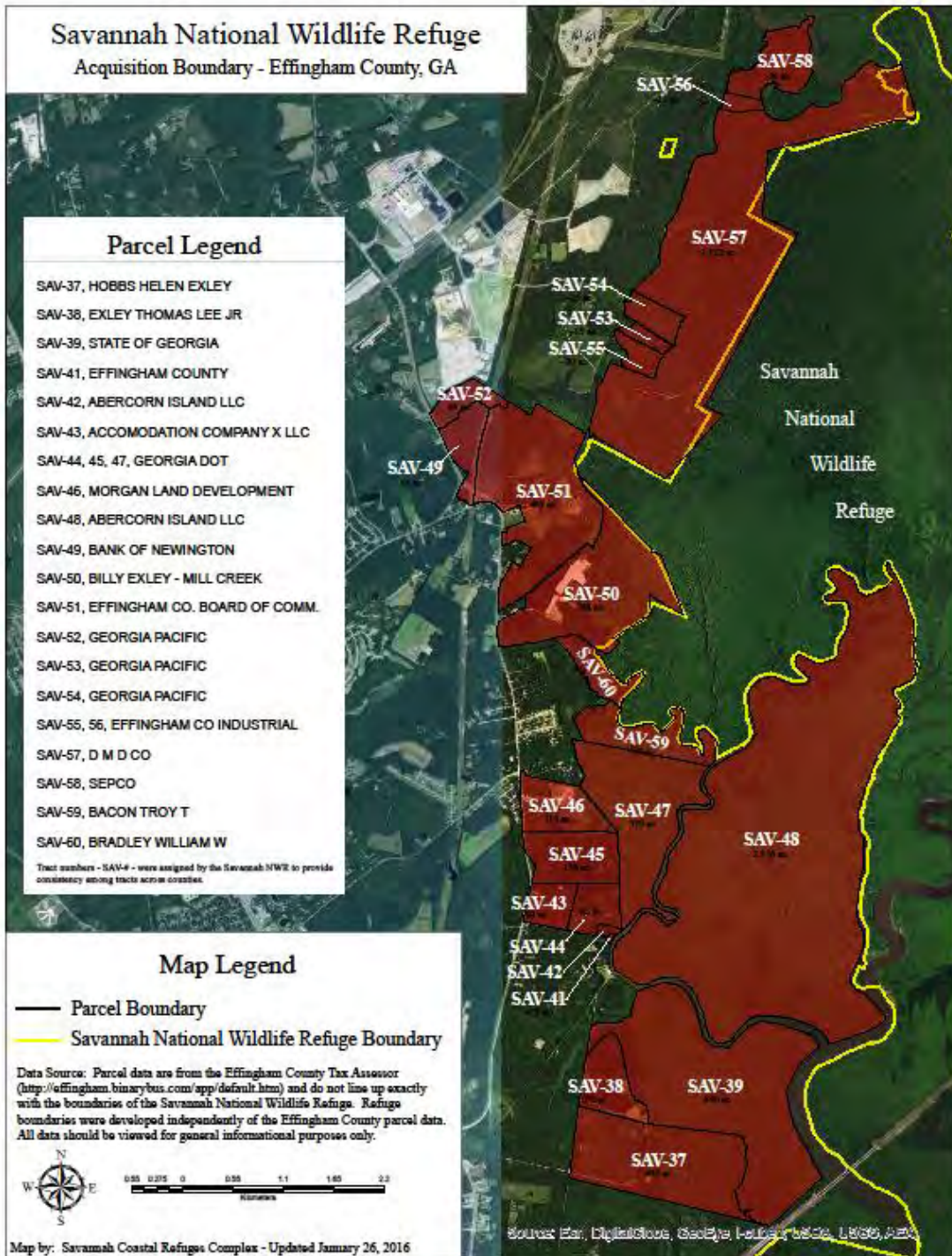


Figure 3: Refuge Acquisition Map Containing Abercorn Island



Figure 4: Abercorn Island

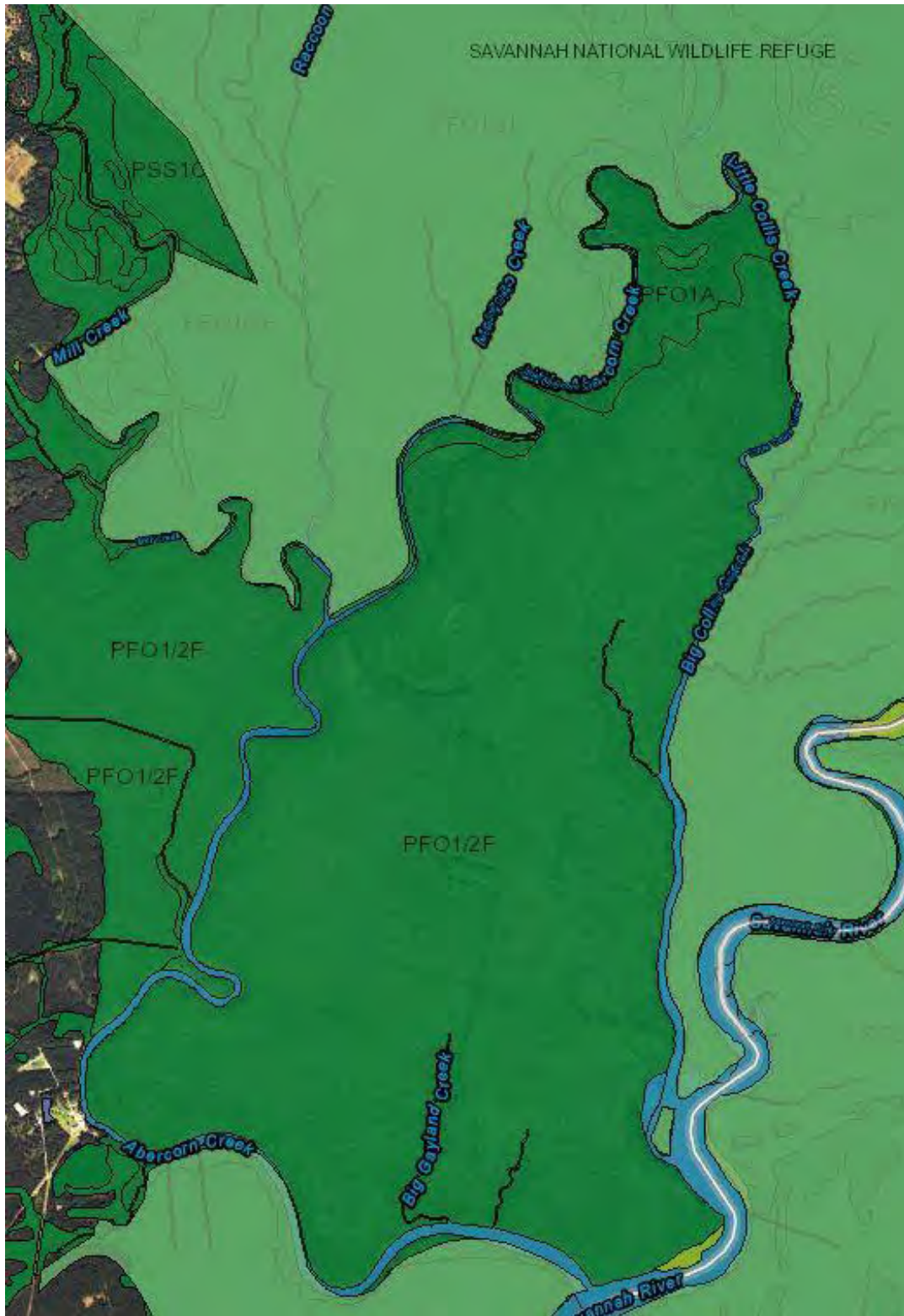


Figure 5: National Wetland Inventory Map of Abercorn Island

Summary:

The Savannah Harbor Expansion Project committed to acquire 2,245 acres of wetlands and transfer them to the Savannah National Wildlife Refuge to compensate for indirect impacts to tidal wetlands.

USACE, the Georgia Department of Transportation, and the Georgia Ports Authority worked with the USFWS to identify properties in the Savannah National Wildlife Refuge’s approved Acquisition Plan that were high on the Refuge’s priority for acquisition.

The GADOT acquired two properties for SHEP that were high priority for the Refuge staff. They acquired the SLF III property in 2015 and transferred it to the Refuge that year. They acquired Abercorn Island in 2017 and are in the process of transferring it to the Refuge.

Acquisition of Freshwater Wetland Mitigation Lands			
Site	Date Acquired by GADOT	Date Transferred to USFWS	Acreage
SLF III	2015	December 22, 2015	175
Abercorn Island	February 28, 2017	2017	2,081
Total Acreage Acquired			2,256

The USFWS is incorporating these properties into the Refuge and will operate and maintain them in the future to advance the goals of the Savannah National Wildlife Refuge and enhance the area’s fish and wildlife resources.

The acquisition of these two ecologically valuable properties fulfills SHEP’s requirements for land acquisition and preservation.

Attachment 1

USFWS Final EA and Land Protection Plan for Expansion of the SNWR



United States Department of the Interior

FISH AND WILDLIFE SERVICE

1875 Century Boulevard
Atlanta, Georgia 30345

In Reply Refer To:
FWS/R4/RF/PL

*cc: DAS
Hope*

JUL 10 2007

RECEIVED

JUL 16 2007

RECEIVED

JUL 13 2007

EXECUTIVE DIVISION

To: Recipients of the Final Environmental Assessment and Land Protection Plan for the Proposed Expansion of Savannah National Wildlife Refuge

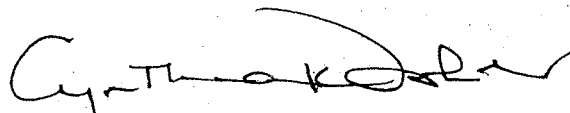
The Fish and Wildlife Service is pleased to provide you with a copy of the Final Environmental Assessment and Land Protection Plan for the Proposed Expansion of Savannah National Wildlife Refuge in Chatham and Effingham Counties, Georgia, and Jasper County, South Carolina. The assessment outlines the actions proposed by the Service to conserve and protect significant habitat within the area.

The proposal was developed by the Service in coordination with the States of Georgia and South Carolina, other Federal agencies, and private groups. In the assessment, three alternatives and their potential impacts on the environment are evaluated. The Service believes the preferred alternative, Protection and Management of up to 3,000 acres by the Fish and Wildlife Service, is a positive step in enhancing the area's fish and wildlife resources.

Additional copies of the assessment may be obtained free of charge by writing to: U.S. Fish and Wildlife Service, Branch of Refuge Planning, 1875 Century Boulevard, Suite 420, Atlanta, Georgia 30345.

Your interest and support for conserving the area of the Savannah National Wildlife Refuge are appreciated.

Sincerely yours,


for Sam D. Hamilton
Regional Director

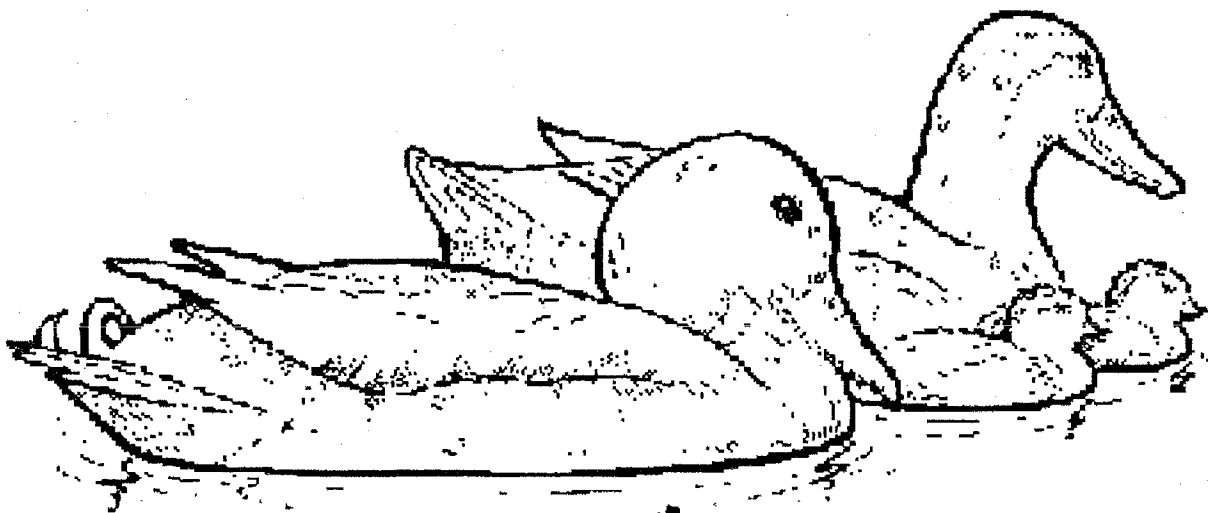
Enclosure

U.S. Fish & Wildlife Service

*Final Environmental Assessment and
Land Protection Plan*

**Proposed Expansion of
Savannah
National Wildlife Refuge**

**Chatham and Effingham Counties, Georgia
and Jasper County, South Carolina**



**ENVIRONMENTAL ASSESSMENT AND LAND PROTECTION PLAN
PROPOSED EXPANSION OF
SAVANNAH NATIONAL WILDLIFE REFUGE**

Chatham and Effingham Counties, Georgia
and Jasper County, South Carolina

**U.S. Department of the Interior
Fish and Wildlife Service**

Southeast Region
Atlanta, Georgia

June 2007

FINDING OF NO SIGNIFICANT IMPACT

For the Expansion of Savannah National Wildlife Refuge

The U.S. Fish and Wildlife Service proposes to protect and manage certain fish and wildlife resources in Jasper County, South Carolina, through the expansion of Savannah National Wildlife Refuge. The Service has analyzed the following alternatives to the proposal in an Environmental Assessment (copy attached):

- Alternative 1: No Action
- Alternative 2: Protection and Management of up to 3,000 Acres by the Fish and Wildlife Service (Preferred Alternative)
- Alternative 3: Protection and Management of up to 1000 Acres by the 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 tidal marshes and hammocks of the Wright and New River System. It would protect this resource for the benefit of many species of fish and wildlife, including: wood stork, bald eagle, painted bunting, salt-marsh sparrow species, numerous waterfowl species, several rail species and saltwater sport fish such as red drum, southern flounder and sea trout.

Implementation of the agency's decision would be expected to result in the following environmental, social and economic effects:

See Environmental Assessment, page 17-18.

Because the project does not have any adverse effects, measures to mitigate and/or minimize adverse effects have not been incorporated into the proposal.

The proposal is not expected to have any significant adverse effects on wetlands and floodplains, pursuant to Executive Orders 11990 and 11988 (EA, page 17).

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

All affected landowners	Local community officials
Congressional representatives	Governor of South Carolina and Georgia
Georgia and South Carolina State Clearinghouse	Interested citizens and organizations
Georgia and South Carolina Department of Natural Resources	

Copies of the Environmental Assessment 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
(404)-679-7247

Therefore, it is my determination that the proposal 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 (EA, page 17).
2. The action will not have a significant effect on public health and safety (EA, page 17).
3. The project will not significantly affect any unique characteristics of the geographic area (EA, page 18).
4. The effects on the quality of the human environment are not likely to be highly controversial (EA, page 18).
5. The action does not involve highly uncertain, unique, or unknown environmental risks to the human environment (EA, page 17-18).
6. The action will not establish a precedent for future actions with significant effects nor does it represent a decision in principle about a future consideration (EA, page 18).
7. There will be no cumulatively significant impacts on the environment (EA, page 18).
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 historic resources (EA, page 18).
9. The action is not likely to adversely affect threatened or endangered species, or their habitats (Section 7 Consultation, see attached).
10. The action will not lead to a violation of federal, state, or local laws imposed for the protection of the environment (EA, page 18)

References:

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



Sam D. Hamilton
Regional Director

5/10/07

Date

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I. PURPOSE AND NEED FOR ACTION

A. Introduction

The U.S. Fish and Wildlife Service (Service) proposes to protect additional wildlife habitats adjacent to Savannah National Wildlife Refuge in Jasper County, South Carolina.

The Savannah National Wildlife Refuge was established in 1927 for migratory bird conservation. In 1995, the Service put forth for public review a Draft Environmental Assessment (Draft EA) for the proposed expansion of Savannah National Wildlife Refuge. This proposed expansion was based on the addition of 4,815 acres to the refuge. Public comments on the Draft EA indicated that the public favored a larger expansion involving additional lands along the western side of the Savannah River. In response to these public comments, the Service's Southeast Regional Office prepared an amended Draft EA for a proposed expansion covering approximately 12,600 acres.

The amended Draft EA was released to the public for review in June 1997. As a result of this review, the Service was requested to add some additional lands on the south portion of the refuge that would provide valuable wildlife habitat. After further study by the Service, approximately 2,200 acres were added, bringing the total proposed expansion to 14,800 acres. The Draft EA was released for public review and received strong public support for the expansion. The Final Environmental Assessment (Final EA) was approved in March 1998.

Currently, the refuge includes 29,175 acres with an approved acquisition boundary encompassing 42,836 acres.

The scope of this Final EA includes the proposed acquisition of lands, the expansion of Savannah National Wildlife Refuge, and a conceptual management plan that provides a general outline on how the new lands would be managed (Appendix A). It is not intended to cover the development and/or implementation of detailed, specific programs for the administration and management of those lands. If the lands are acquired as additions to the refuge, the Service will modify the refuge's existing management plans to incorporate the new lands and resources under its control. At that time, these modified refuge management plans will be made available for public review in accordance with the requirements of the National Environmental Policy Act.

B. Background

Savannah National Wildlife Refuge is located just north of Savannah, Georgia, on the Savannah River. The refuge is the largest of a complex of seven coastal refuges located in an area ranging from the vicinity of Hilton Head, South Carolina, to Darien, Georgia. Together, these refuges protect over 53,340 acres of wildlife habitat.

About 6,000 acres of former rice fields are now managed as wetlands to provide overwintering habitat for migratory birds. The refuge's bottomland hardwood forests also provide habitat for a large diversity of migratory birds and other wildlife.

The management objectives of Savannah National Wildlife Refuge are to provide (1) wintering habitat for migratory waterfowl; (2) breeding and nesting habitat for wood ducks; (3) habitat and protection for threatened and endangered species; (4) habitat for a natural diversity of wildlife; (5) habitat for neotropical migratory birds; and (6) opportunities for environmental education, interpretation, and wildlife-dependent recreation.

The proposed expansion of Savannah National Wildlife Refuge is identified as one of the important habitat conservation projects of the Atlantic Coast Joint Venture of the North American Waterfowl Management Plan. If implemented, the project would protect a diversity of wetland and upland habitats for many species of migratory birds and wintering waterfowl. It would protect habitat for the endangered wood stork, the threatened bald eagle, and many other species of wetland-dependent wildlife, including shorebirds, wading birds, and neotropical migratory birds. The proposed expansion lands also provide critically needed nesting habitat for the painted bunting, a species of special concern. The eastern population of the painted bunting is declining by over three percent annually, and marsh hammocks, within the proposed expansion, are one of the few remaining habitat types that provide undisturbed nesting sites for this species.

The North American Waterfowl Management Plan is an international agreement between the United States, Canada, and Mexico that seeks to restore the continent's dwindling migratory waterfowl populations. To prevent further declines and to restore waterfowl populations to at least the levels that were present during the 1970s, the plan calls for greater habitat conservation efforts through cooperative planning and coordinated management among Federal and State agencies and the private sector.

The plan is being carried out through 12 habitat joint ventures involving Federal, Provincial, State, and local agencies and private conservation organizations, stretching from Mexico's Yucatan Peninsula to the Canadian Arctic. The Atlantic Coast Joint Venture is one of the key partnerships involved in the restoration of waterfowl populations along the Atlantic Flyway.

Marsh hammocks identified in this proposal are threatened by development. The hammocks just north of the proposed expansion are currently being developed as residential home sites. The development of the hammocks within the proposed expansion area will have the potential to directly affect wildlife on the refuge, as the project lands are within less than a mile of the refuge boundary. Disturbances by humans and their domestic animals, pollution from storm-water runoff and septic systems, and an increase in wildfire probability are a few of the impacts associated with development.

Direct impacts from development will not be limited to the marsh hammocks. Activities associated with residential development, such as road construction, installation and operation of septic systems, and the use of herbicides and pesticides, will generate pollutants that will drain into the adjacent marshes and be distributed throughout the estuary system, including current refuge lands.

C. Proposed Action

The Service proposes to acquire and add to the Savannah National Wildlife Refuge up to 3,000 acres of outstanding waterfowl and wildlife habitat in Jasper County, South Carolina. The proposed addition is located within one mile of the southeastern boundary of the refuge (Figure 1). The Service proposes to acquire the identified lands through a fee title donation. In addition, the contributor would establish a trust account to provide annual funding for operational needs of the donated lands.

The proposed action would protect a biologically diverse complex of wetlands and forested marsh hammocks with high ecological values for numerous plants and animals. The new lands would also contribute to the long-term maintenance of the ecological functions and biological productivity of the lower portion of the Savannah River and its associated estuaries.

If the project lands are acquired as part of the refuge, they would be managed in a manner that would protect and enhance the fish and wildlife habitat values they provide. The marsh tidal wetlands and forested marsh hammocks would be managed to maintain their ecological integrity and species composition. In addition, public use on these lands would be administered in the same way as that currently being offered on the refuge. Hunting, fishing, and other public uses would be permitted whenever they are compatible with refuge purposes.

D. Coordination and Consultation

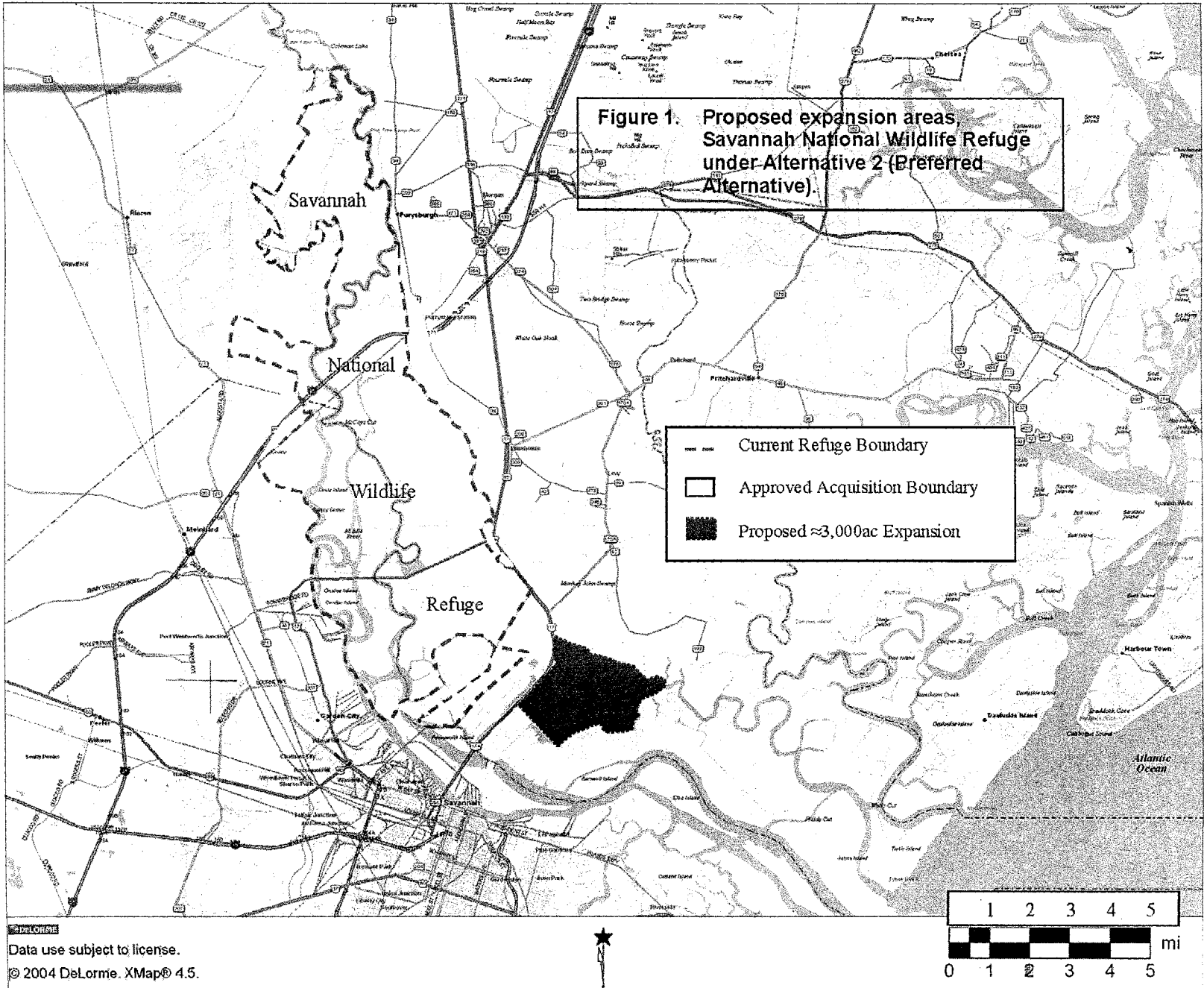
The Service has coordinated the development of this proposal with the South Carolina Department of Natural Resources and The Nature Conservancy.

E. U.S. Fish and Wildlife Service Land Acquisition Policy

It is the policy of the Service to acquire land from willing sellers. The Service, like other Federal agencies, has the power of eminent domain, or the right to acquire private land for the public good with just compensation to the owner. The legal process for such action, known as condemnation, must be shown to be in the public interest and is only very rarely used under special circumstances.

In all fee title acquisition cases, the Service is required by law to offer 100 percent of the property's appraised market value, as set out in an approved appraisal that meets professional standards and Federal requirements.

Figure 1.



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F. Public Participation

The public was notified of the proposed expansion of the refuge and the availability of the Draft EA and Land Protection Plan through a news release distributed on February 15, 2006. This news release summarized the proposal, invited comments from the public, and gave pertinent dates and other information necessary for public review and comment on the proposal. Copies of the document were provided to representatives of Federal, State, and county governments, other Federal and State agencies, interested groups, affected landowners, and the general public. Written comments were accepted through March 15, 2006.

There were only two comments received from the direct mailing of the Draft EA. Approximately 30 stakeholders were mailed the document with a cover letter inviting comments. An invitation to review and comment on the document was also advertised in the legal section of the Savannah Morning News. We had no contacts associated with this form of solicitation.

The first comments from the mailings came from Mr. John Scott of North Savannah Properties, LLC. The company he represents owns approximately 2,000 acres in and around the proposed expansion area. Mr. Scott joined refuge manager Allan Flock and refuge biologist Russell Webb in an informal discussion at the maintenance shop of the Savannah National Wildlife Refuge. Mr. Scott was very pleased at the possibility of having a national wildlife refuge as a neighbor. He went on to tell us about the development his company has invested in north of the refuge expansion area. He commented on how the refuge would preserve the integrity of the low-impact residential development juxtaposed to the expansion wetlands. Mr. Scott did ask of the Service's plans for the property. He was told that the property would be incorporated into the Savannah National Wildlife Refuge and administered similar to the conceptual management plan included in the Draft EA.

The final comment was in the form of a letter from Dan Forester, the Director of the Georgia Department of Natural Resources. Mr. Forester wrote of how "The Georgia Department of Natural Resources recognizes the importance for the acquisition, and conservation of lands that have not significantly been impacted by mans activities." Mr. Forester went on to say, "The protection of critical coastal habitats is important and we are thrilled to see the expansion of the Savannah National Wildlife Refuge and as such support the proposed action." Finally,

Mr. Forester conferred the State's support of refuge public use. He stated, "Further, we are encouraged by your support for both non-consumptive and consumptive wildlife recreation."

II. ALTERNATIVES INCLUDING THE PROPOSED ACTION

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

A. Alternative 1: No Action

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

B. Alternative 2: Protection and Management of up to 3,000 Acres by the U.S. Fish and Wildlife Service (Preferred Alternative)

Under this alternative, the Service would acquire approximately 3,000 acres of additional salt/brackish marsh and marsh hammocks for protection and management as part of Savannah National Wildlife Refuge (Figure 1). The Service would acquire interest in the identified lands to prevent conflicting land uses and to manage the areas for their environmental and wildlife values.

The proposed additions would be acquired to prevent the deterioration and loss of valuable marshes and forested marsh hammocks from land clearing and residential development. Residential development is currently taking place on lands adjacent to the proposed acquisition.

The land acquisition method that would be used by the Service under this alternative is fee title donation by an individual. In addition to the donation, a trust fund would be established to provide the annual funding needed for operation and maintenance of the newly acquired lands.

C. Alternative 3: Protection and Management of up to 1,000 Acres by the U.S. Fish and Wildlife Service

Under this alternative, the Service would acquire approximately 1,000 acres of salt/brackish marsh and marsh hammocks for protection and management as part of Savannah National Wildlife Refuge (Figure 2). The Service would acquire sufficient interest in the identified lands to prevent conflicting land uses and to manage the areas for their environmental and wildlife values. The same acquisition method as described in Alternative 2 would apply to this alternative.

III. AFFECTED ENVIRONMENT

This section describes the area's natural environment, including vegetation, fish and wildlife resources, and cultural resources. The area's socioeconomic and socio-cultural conditions and land uses that could be affected by the proposed action are also discussed.

A. General

The area's climate is influenced by the coastal waters of the Atlantic Ocean. Average annual rainfall is about 50 inches. Average annual temperature is about 66 degrees, with an average high of 90 degrees during July and an average low of 39 degrees in December. There are between 275 and 300 frost-free days per year and temperatures below freezing occur from five to fifteen times per year. The refuge is subject to the effects of tropical storms and hurricanes from June through November.

Extreme tidal fluctuations during full and new moon phases exceed eight feet and can impact refuge operations throughout the year. Tide tables are consulted prior to planning and scheduling maintenance, rehabilitation, and habitat management projects.

There are no known or suspected sources of contamination on the proposed refuge additions. No military low-level flight corridors are presently established over the proposed areas, and no oil or gas production wells are present.

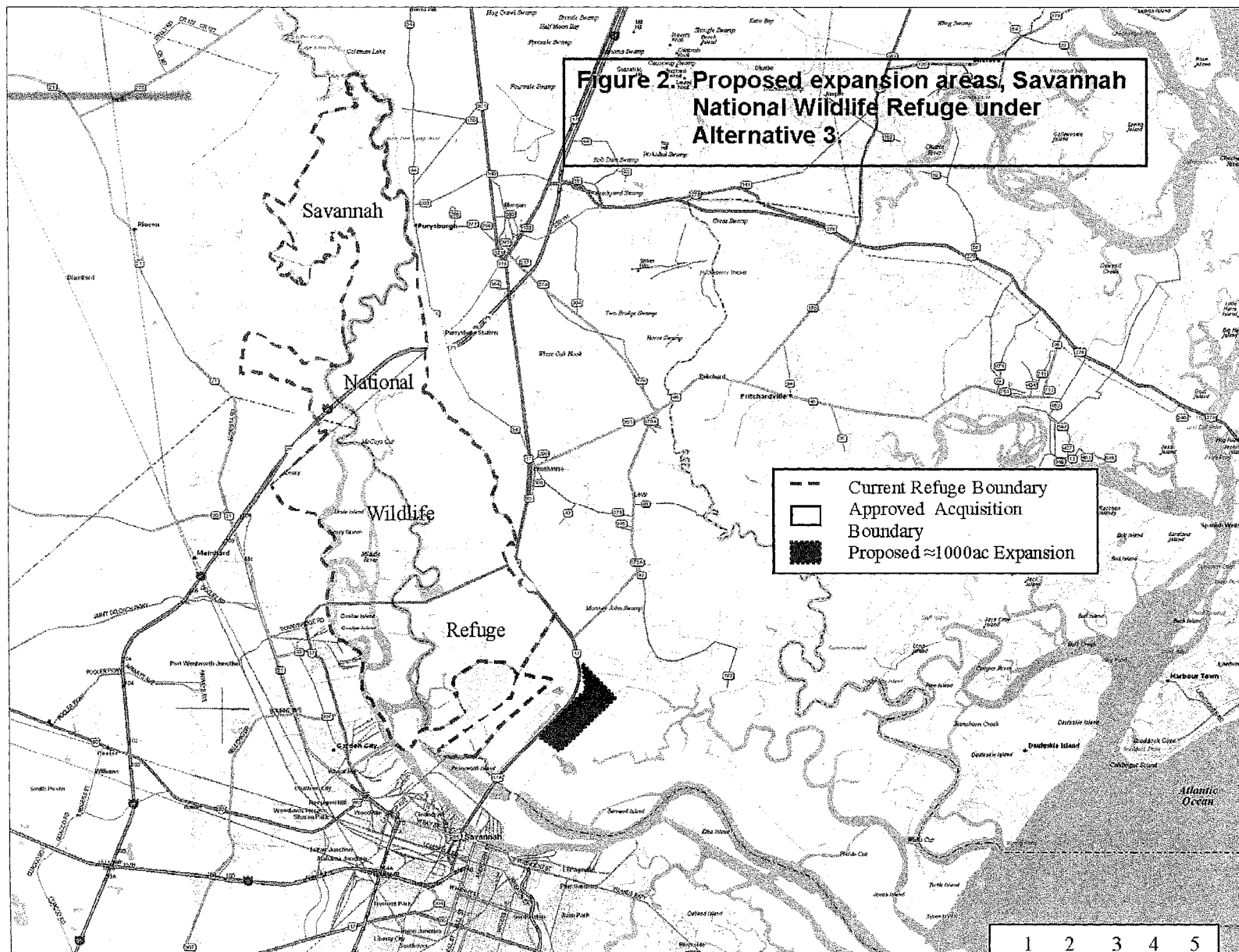
The proposed areas have been considered for inclusion in the National Wilderness Preservation System according to criteria established by the Wilderness Act of 1964 and were found not to be suitable for wilderness designation.

B. Vegetation and Land Use

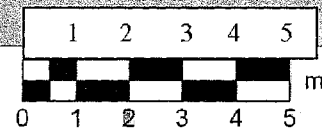
Salt and Brackish Marsh: There are approximately 2,700 acres of marsh within the proposed expansion. The plant community is dominated by smooth cordgrass (*Spartina alterniflora*), saltmeadow cordgrass (*S. patens*), and needle rush (*Juncus roemerianus*). Other species occurring within the marsh are big cordgrass (*S. cynosuroides*), found in the lower marsh areas, and glasswort (*Salicornia virginica*) and sea-myrtle (*Baccharis halimifolia*) occurring within the high marsh areas.

The marsh areas and associated tidal creeks are used by local sport and commercial fishermen, waterfowl hunters, and occasionally local birders. Access is difficult and many areas can be entered only during periods of high tides.

Figure 2.



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Marsh Hammocks: There are approximately 300 acres of marsh hammock habitat within the proposed expansion. The over-story is dominated by live oak (*Quercus virginiana*), laurel oak (*Quercus laurifolia*), water oak (*Quercus nigra*), and spruce pine (*Pinus glabra*), with red bay (*Persea borbonia*), saw palmetto (*Serenoa repens*), southern magnolia (*Magnolia grandiflora*), American holly (*Ilex opaca*), yaupon (*Ilex vomitoria*), and wax myrtle (*Myrica cerifera*) dominant within the mid-story shrub/scrub community. Under-story components consist of sedges (*Cyperus/Carex* sp.), little bluestem (*Andropogon scoparius*), broom sedge (*Andropogon virginicus*), and panic grass (*Panicum virgatum*).

Until recent years, hammocks have been of little monetary value. They were difficult to access and were considered high risk property for development due to their extremely low elevation and susceptibility to storm surge. With the recent financial boom in real estate, it has become economically feasible to develop these areas by constructing bridges from the mainland to the outlying hammocks. Within the development adjacent to the proposed expansion, lots on hammocks are selling for \$600,000 each.

C. Wildlife Resources

The endangered wood stork feeds extensively throughout the proposed expansion area and a major wood stork roost area is located within five miles of the area. An active bald eagle nest is located adjacent to the property (less than a mile) and three additional nests are within five miles of the property. Eagles, peregrine falcons, Mississippi kites, swallow-tailed kites, and other raptors are frequently seen feeding over the marshes and tidal creeks and hunting on the hammocks within the expansion area. The endangered West Indian Manatee is a summer resident of the Savannah River delta and frequents these tidal creeks. State-listed threatened or endangered species include the least tern, Cooper's hawk, and swallow-tailed kite. The tidal marsh supports a diversity of migratory birds, including waterfowl, sea side sparrows, and the very rare black rail. Thousands of shorebirds and wading birds feed within the expansion area daily at periods of low tide. As coastal development continues to accelerate within South Carolina and Georgia, marsh hammocks are becoming increasingly important habitat for neotropical migratory birds and nesting song birds, such as the painted bunting. The eastern population of the painted bunting is decreasing by over 3 percent annually.

The expansion area supports a variety of resident wildlife, including white-tailed deer, turkey, raccoon, otter, bobcat, American alligator, diamond-backed terrapin, and diamond-backed rattlesnake. Feral hogs also inhabit the area. Non-indigenous, the feral hog is considered an invasive species that competes with and feeds on native species. It is Service policy to control and/or eradicate invasive species when possible.

D. Fishery Resources

The proposed expansion area consists of salt and brackish marsh, tidal creeks, and marsh hammocks. The estuary systems (salt, brackish and freshwater marsh with interlacing tidal creeks) are nursery grounds for 94 percent of the commercial and sport fish harvested along the eastern seaboard. The Savannah River estuary system supports an important fishery of both sport and commercial value. Redfish, sea trout, American shad, and striped bass are among the primary species sought. The shortnose sturgeon, a federally listed endangered fish, and the Atlantic sturgeon, a related species, also inhabit the Savannah River. No studies have been conducted to place a dollar value on commercial or sport fisheries within the Savannah River. However, striped bass brood stock from the Savannah River is used to produce striped bass hybrids (striped bass/ white bass) for stocking Georgia waters. The striped bass fisheries, within the State of Georgia, generate annual revenues of \$130 million.

E. Socioeconomic and Sociocultural Conditions

Chatham and Effingham Counties, Georgia, and Jasper County, South Carolina are located along the lower Savannah River. Savannah is the county seat for Chatham County and the area's economic hub. Interstate Highways 16 and 95 and U.S. Highways 17, 80, and 321 intersect in Savannah, connecting the city with the metropolitan areas of Macon and Atlanta, Georgia, and Charleston and Columbia, South Carolina. The proposed expansion will be in Jasper County, South Carolina.

Jasper County, South Carolina, is essentially a rural county, for which forestry interspersed with small farms is the predominant land use. Outdoor recreation is also important. Numerous hunting clubs lease land from timber companies and private landowners for hunting. The Savannah River and its tributaries support a significant recreational and commercial fishery.

The population of Jasper County was estimated at 20,678 in 2000. Primary population centers are the small towns of Hardeeville and Ridgeland, each with less than 3,000 people. Savannah, with a population of 137,500, is located in Chatham County, Georgia, across the Savannah River from Jasper County. A major portion of Jasper County's work force is employed in the industrial center of Savannah. The annual per capita income is \$14,161 compared to the South Carolina State average of \$18,795.

In the vicinity of the refuge, logging and farming are the traditional means of livelihood, and the preferred pastime of many local residents has always centered on wildlife-dependent recreation. Service acquisition of the project areas would provide public opportunities for various types of outdoor recreation, which would also increase visitation to the immediate area. Activities, such as hunting and fishing, would be provided on the project areas whenever they are compatible with the purpose for which the refuge was established.

If the project areas are acquired, there would be no significant land use changes. In fact, conservation of the identified property will help the residents of Jasper County continue the quality recreational opportunities they currently enjoy. This "quality of life" is threatened with developers planning to build 64,000 homes in the near future. If the proposed acquisition occurs, the marsh and hammocks would continue to be managed as part of the Savannah River estuary system. This type of wildlife and habitat management will not adversely affect the economic and sociocultural fabric of the surrounding communities.

F. Cultural Resources

The Savannah River Basin has a rich cultural heritage represented by numerous historical and archaeological sites. Several archaeological sites provide evidence of a once flourishing Indian culture along the river and its tributaries.

The initial settlement of the area by Europeans occurred at Savannah and their steady progression up the Savannah River Basin is marked by the remains of settlements, churches, dwellings, grave sites, and artifacts. Many of these historical sites still exist and have been preserved and protected as the cultural heritage of the region.

European expansion continued throughout the Savannah River Basin in the late 1700s and early 1800s, with the establishment of an agrarian economy, particularly cotton farming. The expansion of cotton farming led to increased wealth and the development of associated industries. This resulted in the development of large estates or plantations and the construction of Greek revival style homes throughout the basin. Many of the homes of this period have been preserved in Savannah.

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 actions on cultural resources (historic, architectural, and archaeological) that are listed or eligible for listing in the National Register of Historic Places (NHRP). In accordance with these regulations, the Service has coordinated the review of this proposal with the South Carolina State Historic Preservation Office.

The Service believes that the proposed acquisition of lands will have no effect on any known or yet-to-be identified NHRP-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 by law or regulation and in Service directives and manuals.

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 proposed areas would not be acquired, protected, and managed as part of Savannah National Wildlife Refuge. The project lands would remain in private ownership with residential development being the primary land use. The area's wildlife values would continue to be threatened by development of the marsh hammocks. The adjacent marshes would be impacted from pollutants generated from the developed hammocks, such as runoff from lawn and garden chemicals (pesticides, fertilizers, and herbicides) and from septic systems. These activities would reduce the area's habitat diversity, wildlife abundance and diversity, and abundance of fishery resources.

Future habitat protection under existing laws and regulations would be insufficient to prevent significant degradation of the area's 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 Corps of Engineers' 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 lands in the proposed expansion areas qualify for protection under this program. In addition, the State of South Carolina has regulatory authority over the area and will not permit any developments that would violate the State's water quality standards. However, there is no assurance that the protection offered by these regulations would be permanent. The regulatory programs are subject to changes in the law and to varying definitions and interpretations, often to the detriment of wetlands. The Corps of Engineers' 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 also met. Fish and wildlife conservation is only one of several public interest factors that are considered in permit issuance decisions. If fish and wildlife conservation is outweighed by other factors, permits that would alter the wetlands in the proposed expansion areas could be issued. Currently, U.S. Environmental Protection Agency (EPA) water quality standards for the Savannah River are not being met, and the EPA is conducting a study on Total Maximum Daily Load (TMDL). There is no possibility of meeting existing water quality standards in the future without a reduction in the TMDLs, and a halt to all development along the river. The most likely solution to this problem will be one that is already being suggested by local and State officials, which is to reduce the standards.

The desired land protection objectives, therefore, cannot be achieved to any reasonable degree under this alternative. Specifically, implementation of "No Action" would adversely impact the areas' valuable fish and wildlife habitats.

B. Alternative 2: Protection and Management of up to 3,000 Acres by the U.S. Fish and Wildlife Service (Preferred Alternative)

Under this alternative, the Service would acquire approximately 3,000 acres of wetland and upland habitats as part of Savannah National Wildlife Refuge (Figure 1). The land protection priorities and proposed methods of acquisition are summarized in Section VI.

The proposed acquisition would fulfill many of the refuge's waterfowl and wildlife habitat management needs, providing ideal wintering habitat for many species traveling through the Atlantic Flyway. It would especially add a greater diversity of habitat for neotropical migratory birds and provide excellent nesting areas for songbirds. Neotropical migratory birds are especially dependent on undisturbed protected habitat during their transcontinental migrations. The addition of these lands to the refuge would provide an almost contiguous wildlife corridor from the Atlantic Ocean to the northwest end of the refuge, over 40 river miles.

Under Service management, attention would be given to the habitat needs of threatened and endangered species and species of management concern occurring in the area. Improved land use and habitat management practices would be implemented to benefit the waterfowl, neotropical migratory birds, and wildlife in the area.

This alternative would protect refuge lands from future development activities. Development could increase the potential for impacts to the marshes and tidal creeks from pesticides, herbicides, and failing septic systems.

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

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

In addition, the proposal would not significantly affect any unique characteristic of the geographic area, such as historical or cultural resources, wild and scenic rivers, or ecologically critical areas. The proposal would not significantly affect any site listed in or eligible for listing in the National Register of Historic Places, nor would it cause loss or destruction of significant scientific, cultural, or historic resources.

The area's cultural resources would be protected under the regulations of the National Historic Preservation Act of 1966, as amended, the Archaeological Resources Protection Act, and the Advisory Council on Historic Preservation (36 CFR 800). The South Carolina State Historic Preservation Office would be contacted whenever any future management activities have the potential to affect the 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 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 within the county. The total estimated annual revenue sharing payment that would be made to the county, depending on the amount of acreage acquired in fee title, would range from \$2,250 to \$10,000.

In addition, the Service is aware of the increased interest in and public support for both consumptive and non-consumptive activities on public lands. The primary purpose of the proposed expansion is to manage the areas from an ecosystem perspective for the benefit of both game and nongame species. Traditional fish and wildlife uses, such as hunting and fishing, will be maintained whenever they are compatible with the purpose for establishing the refuge. Environmental education for urban residents could be emphasized from existing facilities located on tracts of land in the proposed expansion area.

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

C. Alternative 3: Protection and Management of up to 1,000 Acres by the U.S. Fish and Wildlife Service

Under this alternative, the Service would acquire approximately 1,000 acres of brackish marsh as part of Savannah National Wildlife Refuge (Figure 2). This alternative would not acquire as much land as Alternative 2, but due to the lands being donated, there would be no difference in cost. The environmental consequences for this 1,000-acre area would be the same as described in Alternative 2, with the exception that there would be no marsh hammocks within the 1,000-acre tract. Therefore, the marsh hammocks and other marsh habitat (approximately 2,000 acres)

would remain in private ownership and would be affected by the environmental consequences described under Alternative 1.

V. INFORMATION ON PREPARERS

This document was prepared by John Robinette and Russell Webb, Biologists, U.S. Fish and Wildlife Service, Savannah Coastal Refuges.

VI. SUMMARY OF PREFERRED ACTION

The Service's preferred alternative (Alternative B) would result in the acquisition of up to 3,000 acres of wildlife habitat as additions to Savannah National Wildlife Refuge, through fee title donation. Adjacent lands are being developed and it is most likely the lands proposed for acquisition will be developed in the near future unless they can be placed in public ownership. The preferred alternative would provide an almost contiguous wildlife corridor for over 40 miles along the Savannah River, and provide the greatest fish and wildlife benefits.

APPENDIX A

CONCEPTUAL MANAGEMENT PLAN FOR THE PROPOSED EXPANSION OF SAVANNAH NATIONAL WILDLIFE REFUGE JASPER COUNTY, SOUTH CAROLINA

INTRODUCTION

This Conceptual Management Plan for the proposed expansion of Savannah National Wildlife Refuge presents an overview of how the project lands would be managed until a comprehensive conservation plan for the refuge is completed. A Conceptual Management Plan does not detail where facilities would be located or show where public use would be allowed. These details will be included in a comprehensive conservation plan, for which public input will be solicited.

The proposed expansion of Savannah National Wildlife Refuge encompasses about 3,000 acres. The project lands would be added to the existing refuge in Jasper County, South Carolina. The major focus of this proposal is to provide protection to estuarine habitat along the northeast (South Carolina) side of the Savannah River, which is important to interjurisdictional fish and migratory birds, including neotropical migratory birds.

MANAGEMENT GOALS

The goals of Savannah National Wildlife Refuge are:

- Provide quality sport fishing opportunities;
- Protect and enhance habitat for migratory waterfowl, resident wood ducks, neotropical migratory birds, wading birds, and a diversity of other wildlife;
- Protect federally listed endangered species, such as the bald eagle;
- Provide opportunities for wildlife-dependent recreation, environmental education, and interpretation; and
- Protect the long-term water quality of refuge wetlands, including the Savannah River.

REFUGE ADMINISTRATION

The proposed expansion lands would be managed by the U.S. Fish and Wildlife Service as part of Savannah National Wildlife Refuge. The refuge is presently administered by the Service's Savannah Coastal National Wildlife Refuge Complex Office in Savannah, Georgia. 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 Savannah Coastal Refuge Complex has an office in leased space on Chatham Parkway in Savannah. A maintenance shop and storage facilities are located on Savannah National Wildlife Refuge adjacent to South Carolina Highway 170. The refuge offices are open to the public from 8:00 a.m. to 4:30 p.m., Monday through Friday.

The Complex is currently managed by a permanent, full-time staff of 20 persons, consisting of a refuge manager, a deputy refuge manager, a biologist, a public use specialist, an archaeologist, a forester/fire management officer, two dragline operators, one electrician, two law enforcement officers, one administrative assistant, one secretary, two maintenance mechanics, and five equipment operators. Additionally, there are four permanent part-time firefighters on the staff.

The annual budget for the complex is approximately \$2.0 million. It is used to cover personnel salaries, equipment maintenance, supplies, and routine equipment and construction material purchases.

HABITAT MANAGEMENT

The brackish/salt marshes and associated hammocks and tidal creeks adjacent to the Savannah River have long been recognized as high-quality habitat for wildlife. They are also important to the river and coastal fishery providing high-quality nursery and feeding grounds to many of the sport and commercial fish species. The Service's refuge management efforts within the Lower Savannah River are aimed at protecting this unique watershed ecosystem. Industrial/residential development and expansion of the Savannah Port are the biggest threats to the quality and quantities of water needed to sustain this estuarine ecosystem.

Active management within the marsh community habitat will be minimal. Prescribed burning may be a potential management tool used to stimulate early stage plant growth in the marsh and to provide a nutrient influx that would stimulate aquatic invertebrate production and enhanced vigor of fish populations. Prior to the use of fire within the marsh, a fire management plan, Section 7 endangered species consultation, and fire prescriptions would be completed. These plans would address the potential biological need for prescribed fire (if any), impacts to endangered species, and define the time, size, and method of burning.

FISH AND WILDLIFE POPULATION MONITORING

Periodic surveys are conducted on the refuge to document the occurrence of species and to assess population numbers and habitat use. Surveys include waterfowl counts; nesting surveys; endangered species monitoring; breeding bird surveys; deer herd health surveys; and fish surveys. Banding and marking of wildlife is also conducted.

Some monitoring would be conducted in cooperation with the staff of the South Carolina Department of Natural Resources or university researchers in an effort to utilize their expertise and resources to resolve fish and wildlife problems and issues. There are many ongoing efforts that could be expanded to include the proposed expansion lands.

PUBLIC USE OPPORTUNITIES AND MANAGEMENT

Executive Order 12996 emphasizes the importance of providing wildlife-dependent recreational opportunities on national wildlife refuges as long as they are compatible with the established legislation of the refuge. Public use opportunities will likely include both consumptive (hunting and fishing) and non-consumptive uses (wildlife observation and photography, and environmental education and interpretation).

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

Public entry is permitted year-round in those areas shown in the refuge leaflet and marked by appropriate signs.

Vehicles are allowed only on main roads and trails where gates are open.

Use of the refuge for any activity is generally limited to daylight hours only. No camping or overnight parking is permitted.

Possessing or discharging firearms is prohibited except during established hunting seasons in areas designated as open to hunting.

Disturbing or collecting any plant or animal is prohibited.

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 is prohibited.

Entering or remaining on the refuge while under the influence of alcohol or other drugs is prohibited.

Fires are generally not permitted.

Dogs and other pets must be kept under control at all times except when specifically allowed.

Visitor Access

Public roads that traverse the refuge would remain open to the public. The off-road use of all-wheel drive vehicles and all-terrain vehicles will 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., eagle nests and wading bird colonies). Signs and leaflets would clearly indicate the open and closed areas of the refuge. The proposed refuge expansion area would be open for access by foot, canoe, or boat. The needs of physically challenged persons will be considered and included during access planning for any refuge activity or facility.

Hunting

Recreational hunting of waterfowl, rails, and feral hogs will be permitted within the framework of State and Federal regulations and licensing requirements. Areas and types of hunting will be determined by safety, management needs, wildlife populations, size of area, location, and public need, as will hunting seasons. Refuge-specific hunting regulations will be coordinated annually with the South Carolina Department of Natural Resources.

Certain areas within the refuge 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. The use of dogs to hunt white-tailed deer or 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 type/size/use restrictions in certain refuge-controlled areas may be implemented, if necessary, to protect important habitat and wildlife resources.

Wildlife Observation and Photography

Wildlife observation and photography will be encouraged. To provide opportunities for wildlife observation, facilities that might be developed include hiking trails, photo blinds, and wildlife observation platforms. The development of these facilities will depend upon the availability of resources.

Environmental Interpretation and Education

Environmental education and interpretive programs would be designed to enhance the visitor's understanding of natural resource management and ecological concepts. Interpretive programs would focus on self-guiding facilities, such as signed trails, leaflets and booklets, and interpretive signs along interesting features.

Law Enforcement

Enforcement of State and Federal laws on a national wildlife refuge is important to safeguard the refuge's natural and cultural resources, protect and manage visitors, and protect government equipment and facilities. Refuge officers will work closely with other law enforcement agencies and complement their efforts.

MISCELLANEOUS

Cultural Resource Management

The Service will inventory the archaeological and historic sites on the proposed refuge lands and assess their eligibility for listing on the National Register of Historic Places. Management will be coordinated with the South Carolina State Historic Preservation Office, as appropriate, and with other pertinent Federal and State agencies.

Fire Management

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

The refuge has staff trained in fire management and an array of equipment for fire suppression. To supplement these capabilities, cooperative agreements with State agencies and county or township fire departments are used.

Pest Management

It is the policy of the Service to control noxious and exotic plants and animals. This control would emphasize the methods with the least amount of environmental consequences (mechanical control versus chemical control, if possible) and, in the case of animals, the most humane control method.

Some of the species currently creating management problems include: Chinese tallow trees, water hyacinth, alligator weed, fire ants, feral hogs, and coyotes. Some noxious plants and specific animals, which create problems, may have to be removed in order to accomplish refuge goals and maintain a healthy ecosystem.

APPENDIX B

INTERIM COMPATIBILITY DETERMINATION

This Interim Compatibility Determination describes the wildlife-dependent recreational activities proposed on lands to be acquired as part of Savannah National Wildlife Refuge and determines whether these activities are compatible with the purposes for which the refuge was established. Under the National Wildlife Refuge System Improvement Act of 1997, the National Wildlife Refuge System Administration Act of 1966, 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 purpose of the refuge. This Interim Compatibility Determination is intended to bridge the gap between the time of acquisition of refuge land and the completion of a comprehensive conservation plan.

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 comprehensive conservation plan is to provide a basis for determining the compatibility of secondary uses on refuge lands. Such plan is scheduled to be initiated for Savannah National Wildlife Refuge in the year 2008.

Description of Use: (1) Wildlife observation/photography; (2) recreational fishing in accordance with State of South Carolina regulations; (3) recreational hunting of waterfowl, rails, and feral hogs in accordance with State of South Carolina regulations; and (4) environmental education and interpretation.

Station Name: Savannah National Wildlife Refuge.

Date Established: April 16, 1927.

Establishing and Acquisition Authorities: Emergency Wetlands Resources Act of 1986 (100 Stat. 3582-91), Fish and Wildlife Act of 1956, Refuge Recreation Act of 1962, Migratory Bird Conservation Act of 1929, and Executive Order 4626 dated April 16, 1927.

Purposes for which the Refuge was Established:

1. To be managed "... as a refuge and breeding ground for birds and wild animals subject to future use in navigation, if necessary and to valid existing rights if any," (Executive Order 4626, dated April 6, 1927).

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2. For lands acquired under the Migratory Bird Conservation Act (16 U.S.C. 715-715r), as amended, the purpose of the acquisition is "... for use as an inviolate sanctuary, or for any other management purpose, for migratory birds" (16 U.S.C. 715d).
 3. For lands acquired under the Refuge Recreation Act (16 U.S.C. 460K-460K-4), purpose of establishment include: (1) fish and wildlife-dependent recreation, (2) protection of natural resources, and (3) conservation of threatened and endangered species (87 Stat. 902).
 4. For lands acquired under the Fish and Wildlife Act of 1956, "... for the development, advancement, management, conservation, and protection of fish and wildlife resources..." 16 U.S.C. #742f(a)(4) "... for the benefit of the United States Fish and Wildlife Service, in performing its activities and services. Such acceptance may be subject to the terms of any restrictive or affirmative covenant, or condition of servitude..." 16 U.S.C. #742f(b)(1).
 5. The acquisition authority for the proposed expansion of the refuge will be the "Emergency Wetland Resources Act of 1986 (100 Stat. 3582-91)." The purposes are "... the conservation of the wetlands of the Nation in order to maintain the public benefits they provide and to help fulfill international obligations contained in various migratory bird treaties and conventions..." 16 U.S.C. 390 1(b), 100 Stat. 3583.

Refuge Goals: The goals of the refuge are to: (1) provide quality sport fishing opportunities; (2) protect and enhance habitat for migratory waterfowl, resident wood ducks, neotropical migratory birds, wading birds, and a diversity of other wildlife; (3) protect federally listed endangered species, such as the bald eagle; (4) provide opportunities for wildlife-dependent recreation, environmental education, and interpretation; and (5) protect the long-term water quality of refuge wetlands, including the Savannah River.

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 flora and fauna on refuge lands. (4) To provide an understanding and appreciation of fish and wildlife ecology and man's role in his environment, and 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 purpose(s) for which the refuge was established. Public use opportunities are varied and may include both consumptive (hunting and fishing) and non-consumptive uses (wildlife observation/photography).

Because the main purpose for establishing national wildlife refuges is the conservation of wildlife and their habitats, surveys are conducted to collect data regarding 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 require current and accurate information about the resources on and adjacent to the refuge. Detailed biological and public use information is presently available for Savannah National Wildlife Refuge.

Historically, Savannah National Wildlife Refuge has provided outdoor recreation to many sportsmen, especially fishing and hunting. This interim compatibility determination relies on best estimates of projected public use levels as provided by the refuge staff. During the comprehensive conservation planning process, the Service will gather public use data, conduct surveys to estimate wildlife populations, and fully assess public use impacts on the resources of the proposed expansion area.

Following is a general description of the type and estimated level of wildlife-dependent recreational activities that are proposed on the lands to be acquired as Savannah National Wildlife Refuge, as well as a discussion of whether these uses will be compatible with the purpose of the refuge.

Wildlife Observation/Photography/Environmental Education/Interpretation

Non-consumptive uses, such as hiking, bird watching, and nature photography, account for over 200,000 visits annually to the Laurel Hill Wildlife Drive on Savannah Refuge. Additional public use visits are made to other portions of the existing refuge associated with hunting or fishing activity.

The expansion area's habitat for wetland-dependent wildlife species is outstanding. Wading bird and shorebird feeding areas are numerous and the region has a long tradition of waterfowl use. It is geographically positioned on the northeastern edge near the mouth of the Savannah River. The associated marsh hammocks significantly increase the wildlife value of the expansion area, specially increasing the diversity of neotropical migratory birds on the refuge. Resident birds, furbearers, and reptiles, including alligators, are abundant. Once the area is acquired and the public and conservation groups become aware of this addition to the refuge with excellent wildlife observation opportunities, an increase in both consumptive and non-consumptive wildlife-dependent visits is anticipated, despite the fact that most of the area will be accessible by water only. This increase will develop over time and be dependent to some degree on available access for boat launching and promotion of the refuge. The close proximity of this area to Savannah, Georgia, will be a major factor.

Wildlife observation/photography activities might result in some disturbance to wildlife, especially if visitors venture onto the marsh hammocks. Some trampling of vegetation may also occur. This disturbance is expected to be minimal and to have an insignificant effect on refuge resources, including fish and wildlife and their habitats and wetland values. Therefore, the anticipated levels of wildlife observation, photography, and environmental education and interpretation activities are considered to be compatible with the purposes for which the refuge was established.

Hunting

Public hunting on Savannah National Wildlife Refuge is a valuable management tool for the maintenance of healthy diverse indigenous and migratory wildlife populations. Limiting animal numbers to below the carrying capacity of the habitat also propagates enhanced animal health by reducing starvation, malnutrition, and disease. Public hunts have proven to be a cost effective method for reducing or eliminating feral animal species (hogs) from refuge lands. These pest species are extremely damaging to indigenous plants and animals, and can cause excessive damage to refuge facilities, especially dikes, roads and water control structures. It is the policy of the Fish and Wildlife Service to reduce or eliminate populations of detrimental feral animal species. Using the practice of public hunting to comply with this policy is both efficient and effective.

Refuge hunt plans comply with Service policy as directed by the Refuge Manual (8 RM 5). Also, through the compatibility review process, which included an environmental assessment and public review, public hunting was found to be compatible with the purpose for which Savannah Refuge was established. When hunting is found to be compatible, one goal of the Service is to "provide for quality wildlife-dependent recreational opportunities for the visiting

public." The use of managed public waterfowl and rail hunts clearly provides quality wildlife-dependent recreation, while hog hunts assist land managers in controlling non-indigenous animal numbers for the benefit of numerous other wildlife species and the visiting public. The projected level of hunting is considered to be compatible with the purpose for which the refuge was established.

Fishing

The Savannah River has long been known for its quality freshwater and saltwater fishing. The river has attained a regional reputation for its excellent sportfishing, and with a human population of 150,000 within five miles, there is great interest in having additional access to the river. Presently, there is one suitable access road and boat launch facility on Wright River adjacent to the proposed expansion area.

Water quality samples are taken during spring and summer months by University of Georgia students working on a striped bass restoration project. All indicate that the Savannah River has acceptable water quality. However, dissolved oxygen within the harbor area can fall below 3 ppm during summer months. The city of Savannah has a water intake facility on Abercorn Creek, and the Beaufort County Water Authority removes water from the river on the South Carolina side near the upper end of Bear Island. According to fish samples taken by the Georgia Department of Natural Resource biologists, the river has a population of striped bass and Atlantic short nosed sturgeon in addition to game species, such as bass, crappie, bluegill, red ear sunfish, and catfish. One can also catch redfish (spot-tail bass) and sea trout.

Sportfishing is estimated to generate 100,000 visits per year. Most fishing will occur from boats, although some bank/dock fishing facilities are planned.

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

Sportfishing is very popular in the area. Allowing the public to fish on the refuge 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 on the refuge to assure wise use of a renewable resource.

The projected level of sportfishing is considered to be compatible with the purpose for which the refuge was established.

NEPA Compliance: Allowing the projected levels of managed hunting, fishing, and wildlife observation/photography/environmental education activities evaluated in this Interim Compatibility Determination will have negligible impacts on refuge resources. Permitting these uses is not controversial. Therefore, this action is categorically excluded from NEPA (516 DM6 Appendix 1 B(5)). During the comprehensive conservation planning process, 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. A site-specific document (Environmental Assessment and Land Protection Plan for Proposed Expansion of Savannah National Wildlife Refuge), site-specific personal communications (Service and South Carolina Department of Natural Resource biologists), and general references are considered to be sufficient to make this Interim Compatibility Determination.

Determination:

These uses are compatible X . These uses are not compatible .

Based on available information, it has been determined that the expected level of public sportfishing and wildlife observation/photography activities that will occur within the Savannah National Wildlife Refuge acquisition boundary is compatible with the purposes for which the refuge was established.

There has been substantial historical use of this wetland area for hunting, 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/environmental education, hunting, and fishing is consistent with refuge objectives and follows current Service policy.

This Interim Compatibility Determination is based on public use and biological information available for the established portion of the refuge. Much more information is needed for a detailed analysis of compatibility on the proposed expansion lands. During the comprehensive conservation planning process, 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, protection of colonial bird nesting colonies, establishment of sanctuary areas for waterfowl, or conflicts with other refuge management programs.

Stipulations Necessary to Ensure Compatibility: During this interim period, hunting, fishing, wildlife observation, wildlife photography, and environmental education and interpretation will be permitted in accordance with State of South Carolina regulations and licensing requirements, with the following exceptions:

- The refuge will be open for public use during daylight hours only.
- Boats or other personal equipment may not be left on the refuge overnight.
- Boat launching will be permitted only at designated sites.
- The taking of frogs, turtles, and mollusks will be prohibited.

When the refuge's comprehensive conservation plan is completed, additional refuge-specific regulations may be implemented.

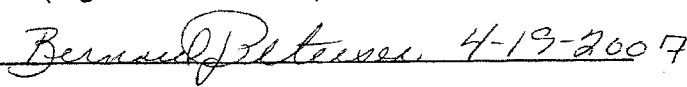
Justification: The mission of the National Wildlife Refuge System is: "To administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations." The National Wildlife Refuge System Improvement Act of 1997 identified hunting, fishing, wildlife observation, wildlife photography, and environmental education and interpretation as activities that the Service should provide and expand on refuges when it is determined that they are compatible with the purpose or purposes of the refuge.

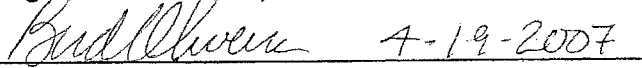
Approval of Compatibility Determination

Signature: **Refuge Manager:**  7-29-06
(Signature and Date)

Review: **Regional**

Compatibility Coordinator:  8/22/06
(Signature and Date)

Review: ^{Acting} **Refuge Supervisor:**  4-19-2007
(Signature and Date)

Concurrence: **Regional Chief:**  4-19-2007
(Signature and Date)

Mandatory 15-Year Re-evaluation Date: 04/19/2022

APPENDIX C

INTERIM RECREATION ACT FUNDING ANALYSIS

Station Name: Savannah National Wildlife Refuge.

Date Established: April 6, 1927.

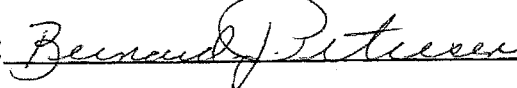
Purpose(s) for which the Refuge was Established:

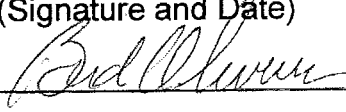
1. To be managed "... as a refuge and breeding ground for birds and wild animals subject to future use in navigation, if necessary and to valid existing rights if any," (Executive Order 4626, dated April 6, 1927).
2. For lands acquired under the Migratory Bird Conservation Act (16 U.S.C. 715-715r), as amended, the purpose of the acquisition is "... for use as an inviolate sanctuary, or for any other management purpose, for migratory birds," (16 U.S.C. 715d).
3. For lands acquired under the Refuge Recreation Act (16 U.S.C. 460K-460K-4), purpose of establishment includes (1) fish and wildlife-oriented recreation, (2) protection of natural resources, and (3) conservation of endangered species or threatened species (87 Stat. 902).
4. For lands acquired under the Fish and Wildlife Act of 1956, "... for the development, advancement, management, conservation, and protection of fish and wildlife resources..." (16 U.S.C. #742f(a)(4)); and "... for the benefit of the United States Fish and Wildlife Service in performing its activities and services. Such acceptance may be subject to the terms of any restrictive or affirmative covenant, or condition of servitude..." (16 U.S.C. #742f(b)(1)).
5. The acquisition authority for the proposed expansion of the refuge will be the Emergency Wetland Resources Act of 1986 (100 Stat. 3582-91). The purposes are "... the conservation of the wetlands of the Nation in order to maintain the public benefits they provide and to help fulfill international obligations contained in various migratory bird treaties and conventions ..." (16 U.S.C. 390 1(b), 100 Stat. 3583).

Recreational Use(s) Evaluated: (1) Wildlife observation and photography; (2) recreational fishing of freshwater fish species; (3) recreational hunting of resident game species; and (4) environmental education and interpretation.

Funding Required to Administer and Manage the Recreational Use(s): Additional funding will not be required. A trust fund will be established by a private benefactor to provide annual funding for refuge operations associated with the 3,000-acre expansion of Savannah National Wildlife Refuge.

Signature: Refuge Manager:  7-24-06
(Signature and Date)

Review: ^{Acting} Refuge Supervisor:  4-19-2007
(Signature and Date)

Concurrence: Regional Chief:  4/19/2007
(Signature and Date)

**Savannah National Wildlife Refuge
Parkway Business Center
1000 Business Center Drive, Suite 10
Savannah, GA 31405**

Telephone: (912) 652-4415

e-mail: savannahcoastal@fws.gov

U.S. Fish & Wildlife Service

1 800/344-WILD

<http://www.fws.gov>

June 2007

Attachment 2

Savannah National Wildlife Refuge's Acquisition Plan Maps

Savannah National Wildlife Refuge

Acquisition Boundary - Chatham County, GA



Parcel Legend

- SAV-2, EM LABORATORIES INC
- SAV-3, CITY OF PORTWENTWORTH
- SAV-4 - 6, 8 - 10 GEORGIA PORTS AUTHORITY
- SAV-12, HILL JOHN E
- SAV-13, SAVANNAH ECONOMIC DEVELOPMENT
- SAV-14, IKEA
- SAV-15, TARGET CORPORATION
- SAV-16, TARGET CORPORATION
- SAV-17, GEORGIA PORTS AUTHORITY
- SAV-18, RLF I-A SPE LLC
- SAV-19, 20, 22 - 24, WYLLY JOHN C JR *
- SAV-25, GEORGIA PORTS AUTHORITY
- SAV-26, GEORGIA PORTS AUTHORITY
- SAV-27, SAVANNAH ECONOMIC DEVELOPMENT
- SAV-28, MAYOR & ALDERMEN OF SAVANNAH
- SAV-29, SAVANNAH ECONOMIC DEVELOPMENT
- SAV-30, RLF I-A SPE LLC
- SAV-31, GEORGIA PORTS AUTHORITY
- SAV-32, 33, UNINCOPORATED - CHATHAM COUNTY
- SAV-34, CSX TRANSPORTATION INC
- SAV-35, 36, STATE OF GEORGIA

* All parcels < 25 ac and located within SAV-30.

Tract numbers - SAV-# - were assigned by the Savannah NWR to provide consistency among tracts across counties.

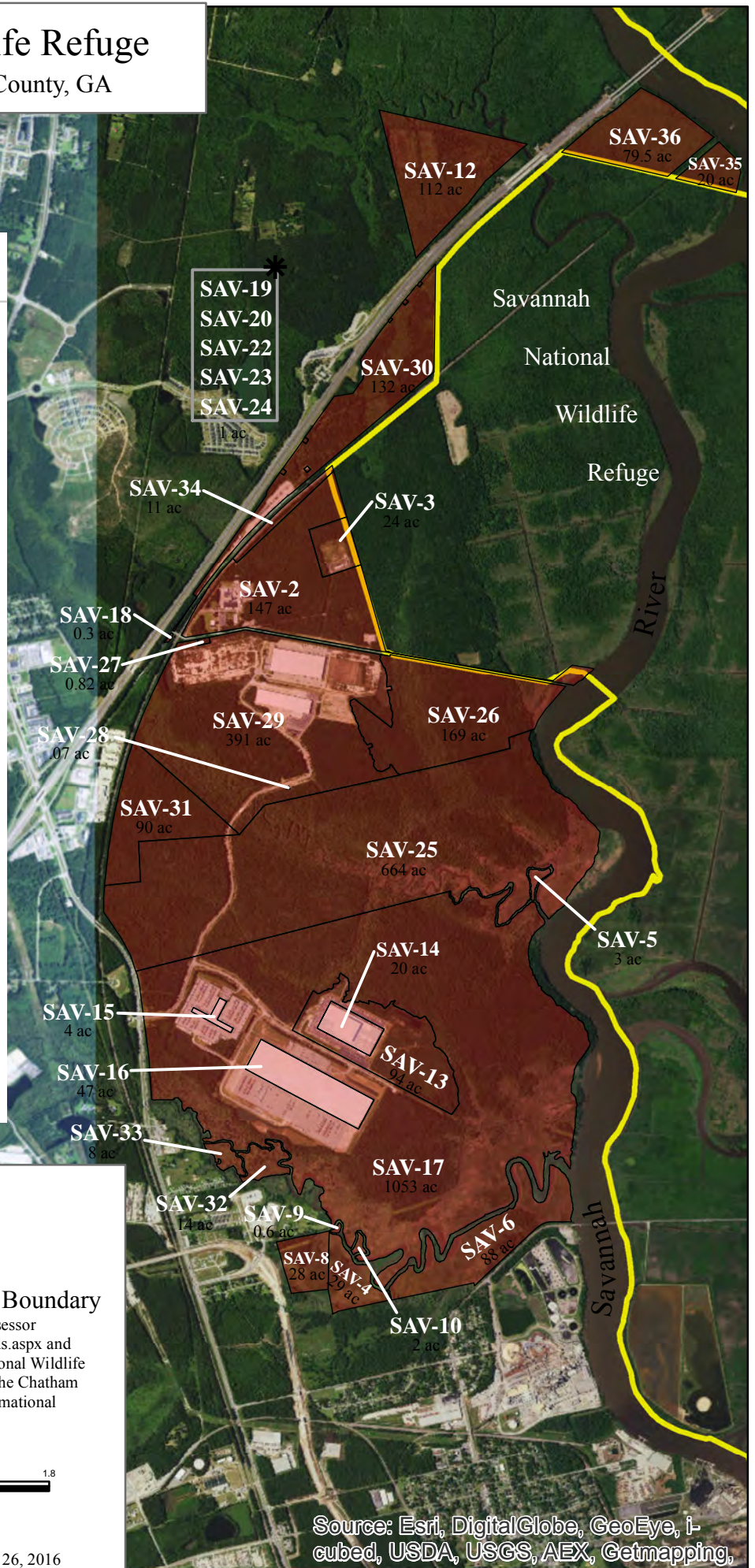
Map Legend

-  Parcel Boundary
-  Savannah National Wildlife Refuge Boundary

Data Source: Parcel data are from the Chatham County Tax Assessor <http://boa.chathamcounty.org/Home/SearchPropertyRecordCards.aspx> and do not line up exactly with the boundaries of the Savannah National Wildlife Refuge. Refuge boundaries were developed independently of the Chatham County parcel data. All data should be viewed for general informational purposes only.



Map by: Savannah Coastal Refuges Complex - Updated January 26, 2016



Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping,

Savannah National Wildlife Refuge



Acquisition Boundary - Effingham County, GA

Parcel Legend

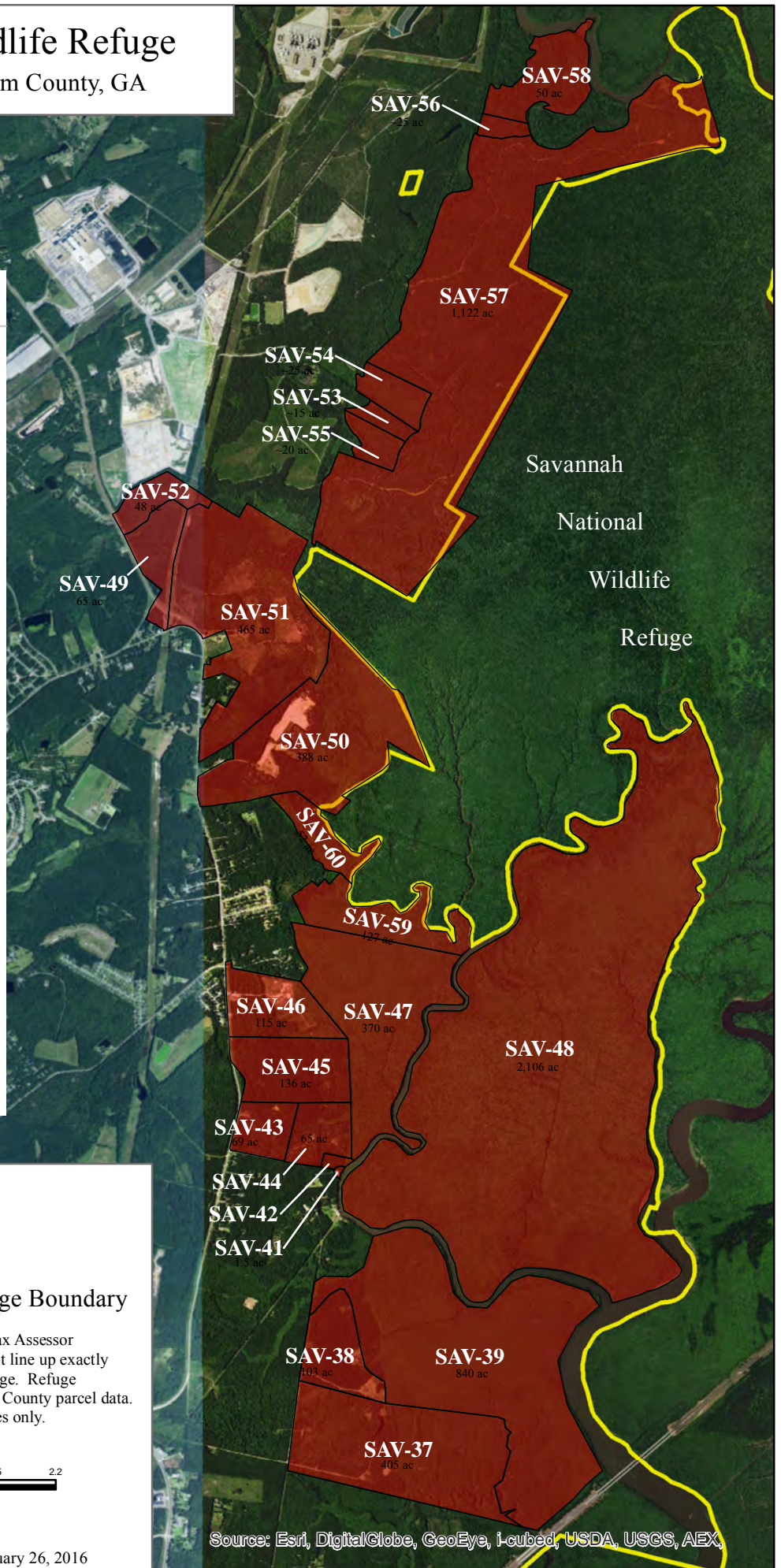
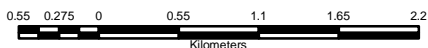
- SAV-37, HOBBS HELEN EXLEY
- SAV-38, EXLEY THOMAS LEE JR
- SAV-39, STATE OF GEORGIA
- SAV-41, EFFINGHAM COUNTY
- SAV-42, ABERCORN ISLAND LLC
- SAV-43, ACCOMODATION COMPANY X LLC
- SAV-44, 45, 47, GEORGIA DOT
- SAV-46, MORGAN LAND DEVELOPMENT
- SAV-48, ABERCORN ISLAND LLC
- SAV-49, BANK OF NEWINGTON
- SAV-50, BILLY EXLEY - MILL CREEK
- SAV-51, EFFINGHAM CO. BOARD OF COMM.
- SAV-52, GEORGIA PACIFIC
- SAV-53, GEORGIA PACIFIC
- SAV-54, GEORGIA PACIFIC
- SAV-55, 56, EFFINGHAM CO INDUSTRIAL
- SAV-57, D M D CO
- SAV-58, SEPCO
- SAV-59, BACON TROY T
- SAV-60, BRADLEY WILLIAM W

Tract numbers - SAV-# - were assigned by the Savannah NWR to provide consistency among tracts across counties.

Map Legend

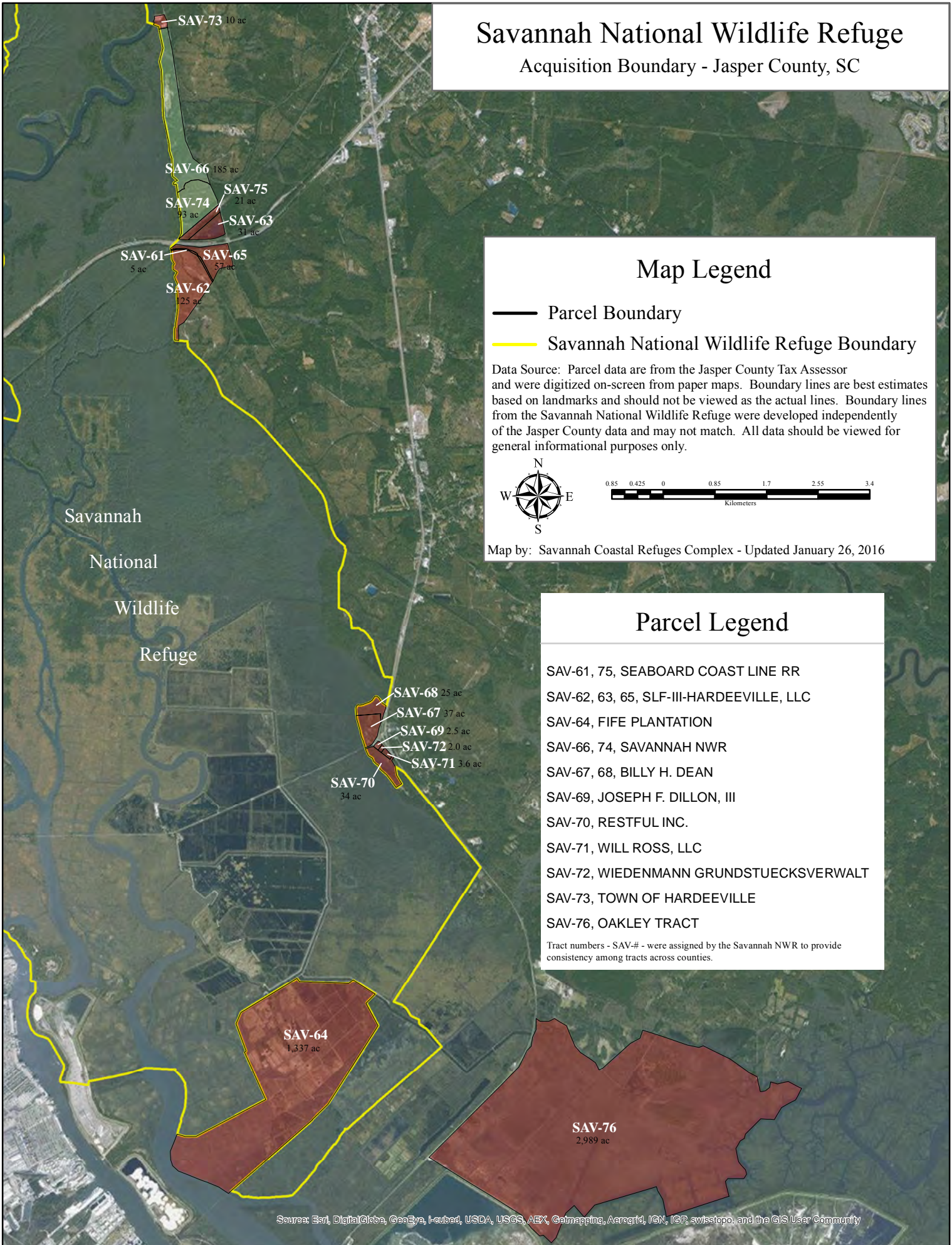
-  Parcel Boundary
-  Savannah National Wildlife Refuge Boundary

Data Source: Parcel data are from the Effingham County Tax Assessor (<http://effingham.binarybus.com/app/default.htm>) and do not line up exactly with the boundaries of the Savannah National Wildlife Refuge. Refuge boundaries were developed independently of the Effingham County parcel data. All data should be viewed for general informational purposes only.



Savannah National Wildlife Refuge

Acquisition Boundary - Jasper County, SC



Map Legend

- Parcel Boundary
- Savannah National Wildlife Refuge Boundary

Data Source: Parcel data are from the Jasper County Tax Assessor and were digitized on-screen from paper maps. Boundary lines are best estimates based on landmarks and should not be viewed as the actual lines. Boundary lines from the Savannah National Wildlife Refuge were developed independently of the Jasper County data and may not match. All data should be viewed for general informational purposes only.



Map by: Savannah Coastal Refuges Complex - Updated January 26, 2016

Parcel Legend

- SAV-61, 75, SEABOARD COAST LINE RR
- SAV-62, 63, 65, SLF-III-HARDEEVILLE, LLC
- SAV-64, FIFE PLANTATION
- SAV-66, 74, SAVANNAH NWR
- SAV-67, 68, BILLY H. DEAN
- SAV-69, JOSEPH F. DILLON, III
- SAV-70, RESTFUL INC.
- SAV-71, WILL ROSS, LLC
- SAV-72, WIEDENMANN GRUNDSTUECKSVIEWALT
- SAV-73, TOWN OF HARDEEVILLE
- SAV-76, OAKLEY TRACT

Tract numbers - SAV-# - were assigned by the Savannah NWR to provide consistency among tracts across counties.

Attachment 3

National Wetland Inventory Maps and Descriptions

Figure 1: SLF III Mitigation Site



SLF III Mitigation Site

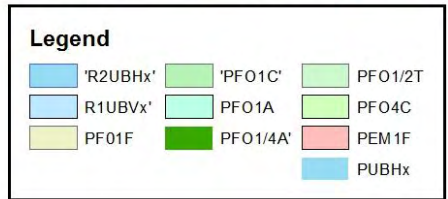
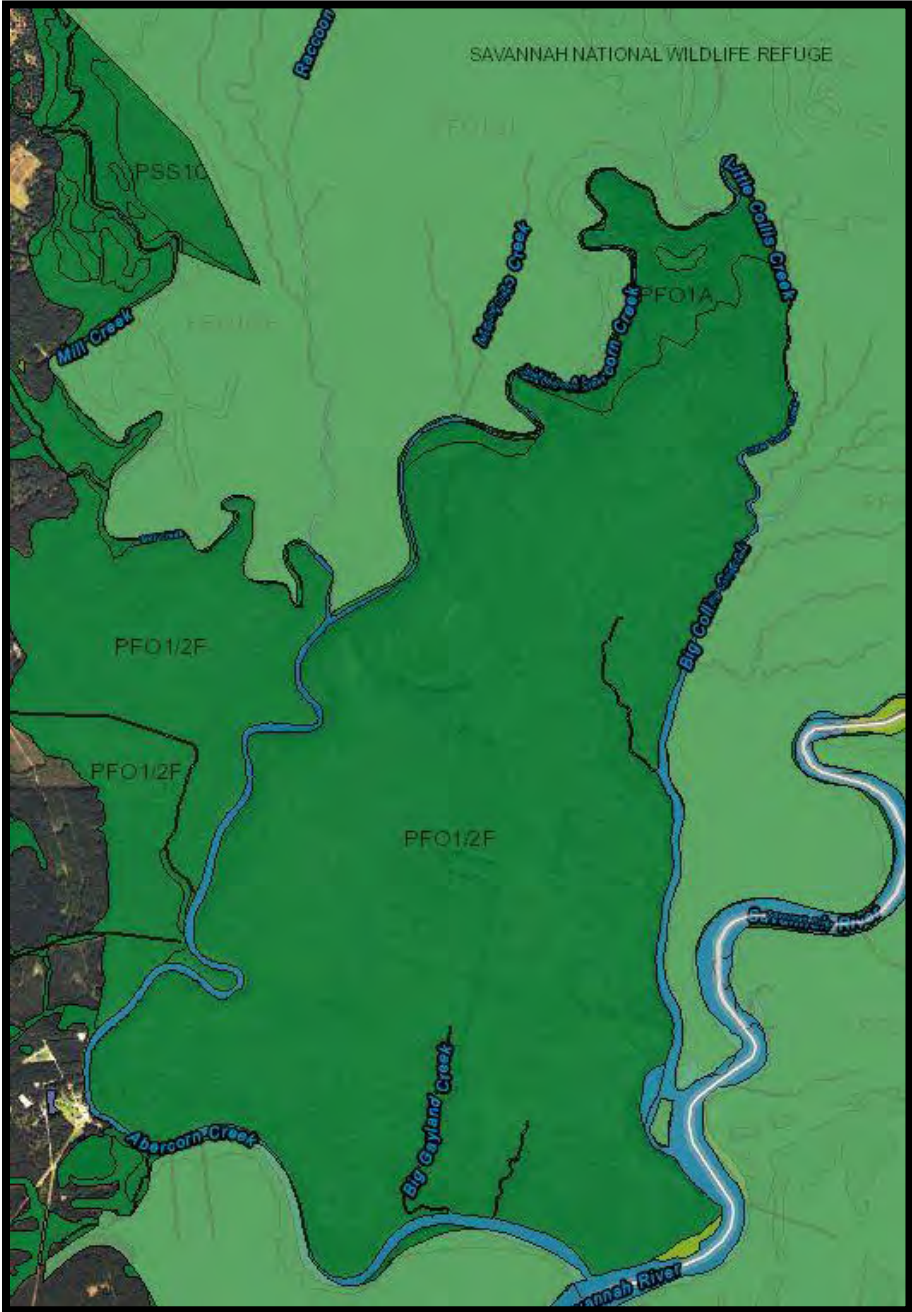


Figure 2: Abercorn Island



Description for code PFO1/4A:

P System PALUSTRINE: The Palustrine System includes all non-tidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0.5 ppt. It also includes wetlands lacking such vegetation, but with all of the following four characteristics: (1) area less than 8 ha (20 acres); (2) active wave-formed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than 2.5 m (8.2 ft) at low water; and (4) salinity due to ocean-derived salts less than 0.5 ppt.

FO Class FORESTED: Characterized by woody vegetation that is 6 m tall or taller.

1 Subclass Broad-Leaved Deciduous: Woody angiosperms (trees or shrubs) with relatively wide, flat leaves that are shed during the cold or dry season; e.g., black ash (*Fraxinus nigra*).

4 Subclass Needle-Leaved Evergreen: The dominant species in Needle-leaved Evergreen wetlands are young or stunted trees such as black spruce or pond pine.

A Water Regime Temporary Flooded: Surface water is present for brief periods (from a few days to a few weeks) during the growing season, but the water table usually lies well below the ground surface for the most of the season.

Description for code PFO1F:

P System PALUSTRINE: The Palustrine System includes all non-tidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0.5 ppt. It also includes wetlands lacking such vegetation, but with all of the following four characteristics: (1) area less than 8 ha (20 acres); (2) active wave-formed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than 2.5 m (8.2 ft) at low water; and (4) salinity due to ocean-derived salts less than 0.5 ppt.

FO Class FORESTED: Characterized by woody vegetation that is 6 m tall or taller.

1 Subclass Broad-Leaved Deciduous: Woody angiosperms (trees or shrubs) with relatively wide, flat leaves that are shed during the cold or dry season; e.g., black ash (*Fraxinus nigra*).

F Water Regime Semi-permanently Flooded: Surface water persists throughout the growing season in most years. When surface water is absent, the water table is usually at or very near the land surface.

Description for code PUBHx:

P System PALUSTRINE: The Palustrine System includes all non-tidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0.5 ppt. It also includes wetlands lacking such vegetation, but with all of the following four characteristics: (1) area less than 8 ha (20 acres); (2) active wave-formed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than 2.5 m (8.2 ft) at low water; and (4) salinity due to ocean-derived salts less than 0.5 ppt.

UB Class UNCONSOLIDATED BOTTOM: Includes all wetlands and deepwater habitats with at least 25% cover of particles smaller than stones (less than 6-7 cm), and a vegetative cover less than 30%.

H Water Regime Permanently Flooded: Water covers the substrate throughout the year in all years.

Other Modifier(s):

x SPECIAL MODIFIER Excavated: This Modifier is used to identify wetland basins or channels that were excavated by humans.

Description for code PEM1F:

P System PALUSTRINE: The Palustrine System includes all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0.5 ppt. It also includes wetlands lacking such vegetation, but with all of the following four characteristics: (1) area less than 8 ha (20 acres); (2) active wave-formed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than 2.5 m (8.2 ft) at low water; and (4) salinity due to ocean-derived salts less than 0.5 ppt.

EM Class EMERGENT: Characterized by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. These wetlands are usually dominated by perennial plants.

1 Subclass Persistent: Dominated by species that normally remain standing at least until the beginning of the next growing season. This subclass is found only in the Estuarine and Palustrine systems.

F Water Regime Semi permanently Flooded: Surface water persists throughout the growing season in most years. When surface water is absent, the water table is usually at or very near the land surface.

Description for code PFO4C:

P System PALUSTRINE: The Palustrine System includes all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0.5 ppt. It also includes wetlands lacking such vegetation, but with all of the following four characteristics: (1) area less than 8 ha (20 acres); (2) active wave-formed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than 2.5 m (8.2 ft) at low water; and (4) salinity due to ocean-derived salts less than 0.5 ppt.

FO Class FORESTED: Characterized by woody vegetation that is 6 m tall or taller.

4 Subclass Needle-Leaved Evergreen: The dominant species in Needle-leaved Evergreen wetlands are young or stunted trees such as black spruce or pond pine.

C Water Regime Seasonally Flooded: Surface water is present for extended periods especially early in the growing season, but is absent by the end of the growing season in most years. The water table after flooding ceases is variable, extending from saturated to the surface to a water table well below the ground surface.

Description for code PFO1A:

P System PALUSTRINE: The Palustrine System includes all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0.5 ppt. It also includes wetlands lacking such vegetation, but with all of the following four characteristics: (1) area less than 8 ha (20 acres); (2) active wave-formed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than 2.5 m (8.2 ft) at low water; and (4) salinity due to ocean-derived salts less than 0.5 ppt.

FO Class FORESTED: Characterized by woody vegetation that is 6 m tall or taller.

1 Subclass Broad-Leaved Deciduous: Woody angiosperms (trees or shrubs) with relatively wide, flat leaves that are shed during the cold or dry season; e.g., black ash (*Fraxinus nigra*).

A Water Regime Temporary Flooded: Surface water is present for brief periods (from a few days to a few weeks) during the growing season, but the water table usually lies well below the ground surface for the most of the season.

Description for code PFO1/2T:

P System PALUSTRINE: The Palustrine System includes all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0.5 ppt. It also includes wetlands lacking such vegetation, but with all of the following four characteristics: (1) area less than 8 ha (20 acres); (2) active wave-formed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than 2.5 m (8.2 ft) at low water; and (4) salinity due to ocean-derived salts less than 0.5 ppt.

FO Class FORESTED: Characterized by woody vegetation that is 6 m tall or taller.

1 Subclass Broad-Leaved Deciduous: Woody angiosperms (trees or shrubs) with relatively wide, flat leaves that are shed during the cold or dry season; e.g., black ash (*Fraxinus nigra*).

2 Subclass Needle-Leaved Deciduous: This subclass, consisting of wetlands where trees or shrubs are predominantly deciduous and needle-leaved, is represented by young or stunted trees such as tamarack or bald cypress.

T Water Regime Semi permanently Flooded-Tidal: Tidal fresh surface water persists throughout the growing season in most years. When surface water is absent, the water table is usually at or very near the land surface. This Modifier is used for Riverine, Lacustrine, and Palustrine habitats.

Description for code R1UBVx:

R System RIVERINE: The Riverine System includes all wetlands and deepwater habitats contained within a channel, with two exceptions: (1) wetlands dominated by trees, shrubs, persistent emergents, emergent mosses, or lichens, and (2) habitats with water containing ocean-derived salts of 0.5 ppt or greater. A channel is an open conduit either naturally or artificially created which periodically or continuously contains moving water, or which forms a connecting link between two bodies of standing water.

1 Subsystem TIDAL: This Subsystem extends from the upstream limit of tidal fluctuations down to the upper boundary of the Estuarine System, where the concentration of ocean-derived salts reaches 0.5 ppt during the period of average annual low flow. The gradient is low and water velocity fluctuates under tidal influence. The stream bottom is mainly mud with occasional patches of sand. Oxygen deficits may sometimes occur and the fauna is similar to that in the Lower Perennial Subsystem. The floodplain is typically well developed.

UB Class UNCONSOLIDATED BOTTOM: Includes all wetlands and deepwater habitats with at least 25% cover of particles smaller than stones (less than 6-7 cm), and a vegetative cover less than 30%.

V Water Regime Permanently Flooded-Tidal: Tidal fresh water covers the substrate throughout the year in all years. This Modifier is used for Riverine, Lacustrine, and Palustrine habitats.

Other Modifier(s):

x SPECIAL MODIFIER Excavated: This Modifier is used to identify wetland basins or channels that were excavated by humans.

Description for code PFO1C:

P System PALUSTRINE: The Palustrine System includes all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0.5 ppt. It also includes wetlands lacking such vegetation, but with all of the following four characteristics: (1) area less than 8 ha (20 acres); (2) active wave-formed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than 2.5 m (8.2 ft) at low water; and (4) salinity due to ocean-derived salts less than 0.5 ppt.

FO Class FORESTED: Characterized by woody vegetation that is 6 m tall or taller.

1 Subclass Broad-Leaved Deciduous: Woody angiosperms (trees or shrubs) with relatively wide, flat leaves that are shed during the cold or dry season; e.g., black ash (*Fraxinus nigra*).

C Water Regime Seasonally Flooded: Surface water is present for extended periods especially early in the growing season, but is absent by the end of the growing season in most years. The water table after flooding ceases is variable, extending from saturated to the surface to a water table well below the ground surface.

Attachment 4

Memorandum of Agreement

Between

USACE, USFWS, GADOT and GPA

November 26, 2014

MEMORANDUM OF AGREEMENT BETWEEN
THE UNITED STATES ARMY CORPS OF ENGINEERS (CORPS)
AND
THE UNITED STATES FISH AND WILDLIFE SERVICE (USFWS)
AND
THE GEORGIA DEPARTMENT OF TRANSPORTATION (GDOT)
AND
THE GEORGIA PORTS AUTHORITY (GPA)
FOR
THE TRANSFER OF LANDS NECESSARY FOR
THE SAVANNAH HARBOR EXPANSION PROJECT

This is a Memorandum of Agreement (MOA) between the Corps, the USFWS, the GDOT, and the GPA. When referred to collectively, the Corps, the USFWS, the GDOT, and the GPA are referred to as the “Parties”. When referred to specifically, the GDOT and GPA, together, are referred to as the “Non-Federal Sponsors”.

1. BACKGROUND:

1.1. Section 7002 of the Water Resources Reform and Development Act of 2014 authorized the Corps, in partnership with Non-Federal Sponsors, to construct the Savannah Harbor Expansion Project (SHEP).

1.2. The GDOT and GPA will serve as the Non-Federal Sponsors for the SHEP. The Non-Federal Sponsors will provide, without cost to the United States, all lands, easements, and rights-of-way, required for the construction and maintenance of the SHEP.

1.3. The construction of the SHEP will impact wetlands and uplands required for construction of mitigation features within the boundaries of the Savannah National Wildlife Refuge, which is managed by USFWS.

1.4. Some of the United States-owned Savannah National Wildlife Refuge lands that are managed by the USFWS are subject to the Federal navigational servitude. These Refuge lands are necessary for construction of the SHEP, and

accordingly, these lands (the “Exchange Lands”, as identified in yellow on the figure attached as Exhibit A to this MOA, will be transferred to the Non-Federal Sponsors through a land exchange with the USFWS.

1.5. A Special Use Permit with the USFWS will be required for construction of SHEP compensatory mitigation features proposed within the boundaries of the Savannah National Wildlife Refuge.

1.6. Planning documents for the SHEP require that approximately 2,245 acres of land (wetlands and uplands) be acquired within the Savannah National Wildlife Refuge Congressionally-approved acquisition boundary as part of mitigation for the wetlands impacts of the SHEP. The USFWS has identified approximately 4,800 acres that would be acceptable for mitigation that could be the source of the needed 2,245 acres. The USFWS has prioritized the lands that could be acquired. All of these lands are within the estuary, ecologically valuable, would provide positive contributions to the goals of the Savannah National Wildlife Refuge, and would enhance the area’s fish and wildlife resources. Accordingly, the Non-Federal Sponsors will acquire 2,245 acres of these lands, or other similar lands identified as a priority by USFWS, to become part of the Refuge.

2. PURPOSE: The purpose of this MOA is to establish an agreement and a general framework between the Parties for the purpose of cooperating in the mitigation measures required by the construction of the SHEP.

3. RESPONSIBILITIES OF THE PARTIES:

3.1. The USFWS will transfer the Exchange Land required for construction near the Kings Island Turning Basin to the Non-Federal Sponsors in a land exchange under the authority of 16 U.S.C. § 668dd(b). USFWS and GADOT will identify the lands to be provided to USFWS in exchange. The exchange will ensure that the exchanged lands have the same dollar value as the lands to be provided by USFWS according to an appraisal or appraisals approved by the United States Department of the Interior’s Office of Valuation Services. The exchange will be accomplished in compliance with all land exchange requirements and standards of the USFWS and the lands transferred to USFWS shall meet all title and environmental condition standards and requirements of the USFWS.

3.2. The Non-Federal Sponsors will acquire 2,245 acres of the lands described in 1.6 above or other lands acceptable to USFWS, according to the priority of USFWS, and transfer them to the USFWS as mitigation for the SHEP. These lands will be acquired from willing sellers and not by the use of eminent domain powers and will meet appraisal, title, and environmental condition requirements and standards applicable to USFWS' land acquisition. USFWS will accept the 2,245 acres of lands acquired by the Non-Federal Sponsors as compensatory mitigation for the SHEP into the inventory of the Savannah National Wildlife Refuge, and will be the Federal property manager of these lands once they are added to the Refuge; provided that USFWS will not accept any lands acquired by eminent domain and that all acquisitions meet the standards and requirements of the USFWS for appraisals, title, and environmental condition.

4. PERSONNEL: Each Party is responsible for all costs of its personnel, including pay and benefits, support, and travel. Each Party is responsible for supervision and management of its personnel.

5. LIMITATION OF COST/ANTI-DEFICIENCY ACT: Nothing in this MOA shall be interpreted or construed as a commitment of requirement that the Corps or USFWS obligate or pay funds in contravention of the Anti-Deficiency Act, 31 U.S.C. § 1341, or any other applicable provision of law.

6. GENERAL PROVISIONS:

6.1. POINTS OF CONTACT: The following points of contact (POC) will be used by the Parties to communicate in the implementation of this MOA. Each Party may change its point of contact upon reasonable notice to the other Parties.

6.1.1. For the Corps—

6.1.1.1. Col. Thomas J. Tickner
Commander Savannah
District

6.1.1.2. Jason O'Kane, P.M.P.
Senior Project Manager Savannah
District

6.1.2. For the USFWS—

6.1.2.1. Cynthia K. Dohner
Regional Director
Southeast Region

6.1.2.2. Jane Griess
Project Leader
Savannah Coastal Refuges Complex

6.1.3. For the GDOT—

6.1.3.1. Keith Golden, P.E.
Commissioner

6.1.3.2 Claude Jackson
Waterways Program Manager

6.1.4. For the GPA—

6.1.4.1. Curtis J. Foltz
Executive Director

6.1.4.2 Hope Moorer
Navigational Improvement Projects General Manager

6.2. CORRESPONDENCE: All correspondence to be sent and notices to be given pursuant to this MOA will be addressed, if to the Corps, to—

6.2.1. Col. Thomas J. Tickner
District Engineer
U.S. Army Corps of Engineers
100 West Oglethorpe Avenue
Savannah, Georgia 31401

if to the USFWS, to—

6.2.2. Ms. Cynthia K. Dohner
Regional Director, Southeast Region
U.S. Fish and Wildlife Service
1875 Centennial Boulevard Northeast
Suite 400
Atlanta, Georgia 30345

if to the GDOT, to—

6.2.3. Mr. Keith Golden
Commissioner
Georgia Department of Transportation
One Georgia Center
600 West Peachtree Northwest
Atlanta, Georgia 30308

and, if to the GPA, to—

6.2.4. Mr. Curtis J. Foltz
Executive Director
Corporate Headquarters
Georgia Ports Authority
2 Main Street
Garden City, Georgia 31408

6.3. REVIEW OF AGREEMENT: This MOA will be reviewed on or around the anniversary of its effective date triennially in its entirety.

6.4. MODIFICATION OF AGREEMENT: This MOA may only be modified by the written agreement of the Parties, duly signed by their authorized representatives.

6.5. DISPUTES: Any disputes relating to this MOA will, subject to any applicable law, Executive Order, regulations or policies of the Parties, including, without limitation Department of Defense directives, or Instructions, be resolved by consultation between the Parties.

6.6. TERMINATION OF AGREEMENT: This MOA will terminate when the land transfers are complete and may also be terminated at any time upon mutual written consent of the Parties.

6.7 TRANSFERABILITY: This Agreement is not transferable except with the written consent of the Parties.

6.8. ENTIRE AGREEMENT: It is expressly understood and agreed that this MOA embodies the entire agreement between the Parties regarding the MOA's subject matter.

6.9. EFFECTIVE DATE: This MOA takes effect beginning on the day after the last Party signs.

AGREED:

U.S. Army Corps of Engineers



Thomas J. Tickner
Colonel, U.S. Army
Commanding

Date: 26 Nov 14

Georgia Department of Transportation



Keith Golden, P.E.
Commissioner
Department of Transportation

Date: 11-14-14

U.S. Fish and Wildlife Service



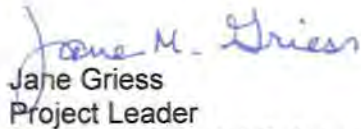
Cynthia K. Donner
Regional Director, Southeast Region

Date: 11-6-2014

Georgia Ports Authority

Curtis J. Foltz
Executive Director

Date: Curt J. Foltz



Jane Griess
Project Leader
Savannah Coastal Refuges Complex
U.S. Fish and Wildlife Service

Date: 11/10/14

Exhibit A



Attachment 5

Signed Quitclaim Deed for SLF III
from GADOT to
the Savannah NWR

Prepared by and return to:
Betty R. Jarous
United States Fish and Wildlife Service
1875 Century Boulevard, Suite 420
Atlanta, Georgia 30345
(404)679-7204

GRANTOR:

Georgia Department of Transportation
600 West Peachtree Street
Atlanta, Georgia 30308

STATE OF SOUTH CAROLINA
COUNTY OF JASPER

GRANTEE:

United States of America
Fish and Wildlife Service
Atlanta, Georgia 30345
(404) 679-7204

LA-South Carolina
Savannah NWR
Georgia Department of
Transportation.

QUITCLAIM DEED

THIS QUITCLAIM DEED is made on the date indicated herein, by and between Georgia Department of Transportation, an agency of the State of Georgia whose address is 600 West Peachtree, Atlanta, Georgia 30308, through its duly authorized Russell R. McMurry, Commissioner, and Angela M. Whitworth, Treasurer, hereinafter styled the GRANTORS, and the UNITED STATES OF AMERICA, by and through Secretary of the Interior, on behalf of the United States Fish and Wildlife Service, whose mailing address is 1875 Century Boulevard, Room 420, Atlanta, Georgia 30345, hereinafter styled the GRANTEE.

WITNESSETH, that the GRANTOR, for good and valuable considerations, the receipt and sufficiency of which are hereby acknowledged, does hereby grant, bargain, sell and convey unto the GRANTEE and its assigns, all of the following land situated and lying in the County of Jasper, State of South Carolina, containing 175.06 acres, more or less, which land is more particularly described as following property:

SEE EXHIBIT "A" ATTACHED HERETO AND MADE A PART HEREOF

The above described land is being granted for administration by the Secretary of the Interior, through the United States Fish and Wildlife Service. The Secretary of the Interior is

expressly authorized to accept such grant pursuant to the Fish and Wildlife Act of 1956, as amended and the Fish and Wildlife Coordination Act, as amended.

The 175.06 acres as partial fulfillment of wetland mitigation in the Savannah Harbor Expansion Project.

SUBJECT, HOWEVER, to existing easements for canals, ditches, flumes, pipelines, railroads, public highways and roads, telephone, telegraph, power transmission lines and public utilities.

TO HAVE AND TO HOLD with all and singular, the rights, tenements, together with all water rights, easements, appurtenances, and hereditaments thereunto belonging or in anywise appertaining unto the GRANTEE and its assigns, in fee simple.

AND THE SAID GRANTOR, for itself, its successors and assigns, hereby covenants that the property is free of all encumbrances, except as stated above, that it is lawfully seized in fee of the said premises, that it has good right to grant and convey the same to the said GRANTEE, and its assigns, forever.

FURTHER, the GRANTOR does hereby release and quitclaim unto the GRANTEE and its assigns, all the right, title and interest, legal and equitable, which the GRANTOR may have in the banks, beds, and waters of any streams opposite to or fronting upon said land including all littoral and/or riparian rights incident thereto and in alleys, roads, streets, ways, strips, gores, or railroad right-of-way abutting or adjoining said lands and in any means of ingress and egress appurtenant thereto.

IN WITNESS WHEREOF, the GRANTOR, acting by and through the Commissioner of the Department of Transportation, has hereunto caused the hand and seal of the Department of Transportation to be set to these presents on this the 20th day of December, 2015.

GRANTOR:

Signed, Sealed and delivered
in the presence of:

Chavis R. Madams
Witness

**GEORGIA DEPARTMENT OF
TRANSPORTATION-An Agency of the
State of Georgia**

By: Russell R. McMurry
Russell R. McMurry, P.E.
Title: Commissioner



ACKNOWLEDGMENT

STATE OF Georgia
COUNTY OF Fulton

Personally appeared before me, the undersigned authority in and for said County and State, Russell R. McMurry, Commissioner of the Georgia Department of Transportation, who acknowledged that he signed and delivered the foregoing instrument on behalf of said Department on the day and year herein mentioned.

GIVEN under my hand this 22nd day of December, 2015.



Notary Public: Anita Henson

My Commission expires: MY COMMISSION EXPIRES 10/16/2019

GRANTOR:

Signed, Sealed and delivered
in the presence of:

**GEORGIA DEPARTMENT OF
TRANSPORTATION-An Agency of the
State of Georgia**

Chavis R. Madani

Witness

Attest:

Angela M. Whitworth

Angela M. Whitworth
Title: Treasurer



ACKNOWLEDGMENT

STATE OF Georgia
COUNTY OF Fulton

Personally appeared before me, the undersigned authority in and for said County and State, Angela M. Whitworth, Treasurer of the Georgia Department of Transportation, who acknowledged that she signed and delivered the foregoing instrument on behalf of said Department on the day and year herein mentioned.

GIVEN under my hand this 22nd day of December, 2015.



Notary Public: Anita Henson

My Commission expires: MY COMMISSION EXPIRES 10/16/2019

IN WITNESS WHEREOF, the GRANTEE has caused this instrument to be executed on this the 23 day of December, 2015.

GRANTEE:

Signed, Sealed and delivered
in the presence of:

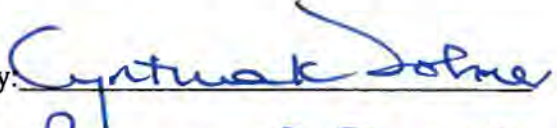
**UNITED STATES OF AMERICA
Department of the Interior
U.S. Fish & Wildlife Service**



Witness



Witness

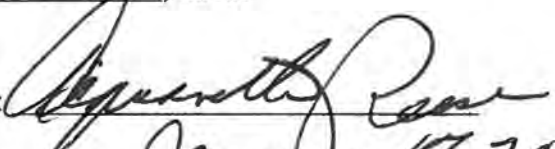
By: 
Its: Regional Director
Southeast Region

ACKNOWLEDGMENT

STATE OF GEORGIA
COUNTY OF DEKALB

Personally appeared before me, the undersigned authority in and for said County and State, Cynthia K. Doherty Regional Director for the United States of America, Department of the Interior, U.S. Fish & Wildlife Service, who acknowledged that s/he signed and delivered the foregoing instrument on behalf of said United States of America on the day and year herein mentioned.

GIVEN under my hand this 23rd day of December, 2015.

Notary Public: 

My Commission expires: January 17, 2016



EXHIBIT A
"LEGAL DESCRIPTION"

All that certain piece, parcel or lot of land, situate, lying and being in the City of Hardeeville, County of Jasper, State of South Carolina, being designated and shown as "Parcel 2B" on that certain plat entitled "Subdivision Plat of Parcel 2 ~ A Portion of the Hardeeville Tract ~ TMS # 029-00-01-010" prepared by Thomas & Hutton Eng. Co., Robert K. Morgan, S.C. PLS No. 26957, dated December 6, 2013 and recorded in Plat Book 33, Page 154, Register of Deeds, Jasper County, South Carolina, said plat being incorporated herein and made a part hereof by this reference, and being more particularly bounded and described as follows:

Commencing at an iron pipe found at the intersection of the northerly right-of-way line of U.S. Interstate 95 (R/W varies) with the northwesterly right-of-way line of CSX Railroad (400' R/W), said iron pipe having a South Carolina State Plane (NAD83) (2001) International Foot coordinate of N 153,299.63 and E 1,964,562.66;

thence along said northerly right-of-way line of Interstate 95 on a Grid Bearing of N 85°17'15" W 99.23 feet to a concrete monument found at the intersection with the common line of Savannah National Wildlife Refuge Tracts 29i and 63 as described in Jasper County S.C. Deed Book 81 Page 398 and Deed Book 865 Page 163, respectively;

thence along said common property line of Tracts 29i and 63, the following three (3) courses:
1) N 24°22'23" E 307.57 feet (310.67 feet per record 81/398) to a concrete monument found,
2) N 06°37'30" E 181.12 feet (184.68 feet per record 81/398) to a concrete monument found,
3) N 04°37'57" W 2044.97 feet to a ¾" iron pipe set at the northwest corner of Tract 63, and
the Point of Beginning;

thence leaving said Tract 63 and continuing with the easterly property line of Tract 29i, N 04°37'57" W 32.94 feet to a concrete monument found at a common corner with Savannah National Wildlife Refuge Tract 29a as described in Jasper County S.C. Deed Book 82 Page 1915;

thence along the said easterly line of Tract 29a the following two (2) courses:
1) N 04°55'22" W 430.59 feet (430.16 per record 82/1915) to a concrete monument found,
2) S 70°03'40" W 228.21 feet (228.04 per record 82/1915) to a concrete monument found at a common corner with Savannah National Wildlife Refuge Tract 29d as described in Jasper County S.C. Deed Book 81 Page 398;

thence along the easterly line of said Tract 29d the following twenty-four (24) courses:
1) N 02°58'59" E 124.93 feet (125.03 per record 81/398) to a concrete monument found,
2) N 45°55'46" E 245.07 feet (245.62 per record 81/398) to a concrete monument found,

EXHIBIT A
"LEGAL DESCRIPTION" (continued)

- 3) N 67°25'47" W 208.30 feet (208.93 per record 81/398) to a concrete monument found,
- 4) N 08°41'26" W 108.90 feet (109.05 per record 81/398) to a concrete monument found,
- 5) N 07°35'36" E 201.90 feet (201.90 per record 81/398) to an iron pipe found,
- 6) N 05°34'55" W 429.25 feet (429.25 per record 81/398) to a concrete monument found,
- 7) N 04°56'49" W 395.43 feet (397.35 per record 81/398) to a concrete monument found,
- 8) N 17°10'03" W 254.46 feet (254.63 per record 81/398) to a concrete monument found,
- 9) N 07°18'40" W 224.73 feet (223.00 per record 81/398) to a concrete monument found,
- 10) N 13°15'51" W 142.95 feet (143.48 per record 81/398) to a concrete monument found,
- 11) N 06°24'42" W 230.36 feet (230.38 per record 81/398) to a concrete monument found,
- 12) N 07°42'26" W 454.43 feet to a concrete monument found,
- 13) N 07°38'31" W 355.22 feet to a concrete monument found (the combination of the previous two (2) courses is described as one course totaling 809.67 per record 81/398),
- 14) N 14°14'37" W 395.09 feet (395.35 per record 81/398) to a concrete monument found,
- 15) N 03°09'06" W 496.68 feet (496.85 per record 81/398) to a concrete monument found,
- 16) N 05°01'02" W 632.80 feet (632.84 per record 81/398) to a concrete monument found,
- 17) N 03°08'21" E 344.46 feet (344.56 per record 81/398) to a concrete monument found,
- 18) N 01°59'26" W 373.22 feet (373.55 per record 81/398) to a concrete monument found,
- 19) N 00°33'30" E 483.94 feet (483.94 per record 81/398) to an iron pipe found,
- 20) N 06°44'58" W 549.90 feet (549.90 per record 81/398) to a concrete monument (broken) found,
- 21) N 22°05'08" W 261.38 feet (265.40 per record 81/398) to a concrete monument found,
- 22) N 18°23'14" E 803.07 feet (801.65 per record 81/398) to a concrete monument found,
- 23) N 12°02'16" W 861.46 feet to a concrete monument found,
- 24) N 11°56'27" W 99.67 feet to a concrete monument found (the combination of the previous two (2) courses is described as one course totaling 988.90 per record 81/398);

thence leaving the said easterly property line of Tract 29d, and with the southerly property line of the City of Hardeeville, N 78°02'50" E 446.66 feet to a concrete monument (broken) found at a point on curve on the westerly right-of-way line of Purrysburg Road, from said monument a radial line bears S 78°42'18" W;

thence along said westerly right-of-way of Purrysburg Road the following six (6) courses:

- 1) with the arc of a curve turning to the right, having an arc length of 257.04 feet, a radius of 5696.58 feet, and a chord bearing and distance of S 10°00'09" E 257.02 feet, to an iron pipe found,
- 2) S 08°42'35" E 3813.59 feet to an iron pipe found,
- 3) S 09°01'53" E 2153.50 feet to an iron pipe found,

LA – South Carolina
Savannah NWR - Tract 2a
(Georgia Dept. of Transportation)

EXHIBIT A
"LEGAL DESCRIPTION" (continued)

- 4) with the arc of a curve turning to the left, having an arc length of 1143.01 feet, a radius of 1778.00, and a chord bearing and distance of S 27°26'53" E 1123.43 feet to an iron pipe found,
- 5) S 45°51'53" E 529.56 feet to an iron pipe found,
- 6) with the arc of a curve turning to the right, having an arc length of 78.00 feet, a radius of 967.00 feet, and a chord bearing and distance of S 43°33'14" E 77.98 feet to a ¾" iron pipe set;

thence leaving said right-of-way and with the northerly line of Savannah National Wildlife Refuge Tract 63 as described in Jasper County S.C. Deed Book 865 Page 163, S 49°42'49" W a distance of 1926.68 feet to the point of beginning.

Containing 175.06 acres, more or less.

Said property is a portion of the lands conveyed to SLF III - Hardeeville, LLC, a Texas limited liability company, pursuant to that Limited Warranty Deed from JPR Land Co., LLC dated February 28, 2008, recorded in Deed Book 645, Page 96, Register of Deeds, Jasper County, South Carolina, and is the same property conveyed to the Georgia Department of Transportation by SLF III - Hardeeville, LLC, a Texas limited liability company, by that certain Special Warranty Deed dated December 24, 2014, recorded in Deed Book 887, Page 401, Register of Deeds, Jasper County, South Carolina.

The above description is intended to describe and convey any and all of the Grantor's rights, title, and interest between the herein described Tract 2a and the abutting properties, including any gores or gaps which might exist as a result of variations between record surveys and the bearings and distances of the courses contained herein.

Approved for Official use by:



Linda Kubicsko - Regional Land Surveyor
U.S. Fish and Wildlife Service – Region 4
Atlanta, Georgia

16 DEC 2015

Date:

prepared by:
Richard Kosior – Sr. Land Surveyor
U.S. Fish & Wildlife Service – Region 4
Atlanta, Georgia

Attachment 6

Limited Warranty Deed For Abercorn Island

DDC# 001725
FILED IN OFFICE
3/2/2017 02:52 PM
BK:2392 PG:504-508
ELIZABETH Z. HURSEY
CLERK OF SUPERIOR COUR
T
EFFINGHAM COUNTY

Return To:

Fidelity National Title Group
5565 Glenridge Connector, STE 300
Atlanta, GA 30342
Attn: LK

PT-61 051-2017-000488

Return Recorded Document to:

George L. Lewis
George L. Lewis P.C.
PO Box 61509
Savannah, GA 31420-1509

STATE OF GEORGIA

COUNTY OF EFFINGHAM

LIMITED WARRANTY DEED

Made By

ABERCORN ISLAND, LLC

TO

GEORGIA DEPARTMENT OF TRANSPORTATION

THIS LIMITED WARRANTY DEED is made as of the 28th day of February, 2017 by and between **ABERCORN ISLAND, LLC**, a Georgia limited liability company, whose address is 204 Old W Lathrop Ave, Savannah, Georgia 31415 (hereinafter referred to as "**Grantor**"), and **GEORGIA DEPARTMENT OF TRANSPORTATION**, whose address is One Georgia Center - 14th Floor, 600 West Peachtree Street, Atlanta, Georgia 30308 (hereinafter referred to as "**Grantee**").

W I T N E S S E T H:

FOR AND IN CONSIDERATION of the premises, the sum of TEN AND NO/100 DOLLARS (\$10.00) in hand paid at and before the sealing and delivery of these presents, and for other good and valuable consideration, the receipt, adequacy and sufficiency of which are hereby acknowledged, Grantor has granted, bargained, sold, aliened, conveyed and transferred, and by these presents does grant, bargain, sell, alien, convey and transfer unto Grantee the real property more particularly described on Exhibit "A" attached hereto and by reference made a part hereof (the "**Property**").

TOGETHER WITH all and singular the rights, members and appurtenances in and to the Property anyway appertaining or belonging thereto.

The Property is conveyed by Grantor subject to all matters of record. The Property is also conveyed subject to the following: (i) taxes for the year of 2017 and subsequent years; (ii) any rights of the United States of America, the State of Georgia or others in tidelands, or lands comprising the shores or beds of navigable or perennial rivers and streams, lakes, bays, gulfs or oceans or beds of tidewaters, including without limitation, any and all claims by the State of Georgia under O.C.G.A. § 52-1-2; (iii) the

5

right and title of the United States of America, the State of Georgia or others to any portion of the Property affected by the tides, lands beyond the line of harbor or bulkhead lines as established or changed by any government, filled-in lands or artificial islands; (iv) statutory water rights, including riparian rights; (v) the area extending from the line of mean low tide to the line of vegetation, or the rights of access to that area or easement along and across that area, (vi) all current or future land use laws (including environmental and wetlands laws), building and zoning laws, development standards, regulations, codes and ordinances affecting the Property; (vii) general utility, roadway and other easement(s) in favor of any telephone, gas or other utility company, Effingham County, Georgia, or any other local, state or federal governmental agency or entity; (viii) matters which would be disclosed by an accurate survey and inspection of the Property; (ix) prior reservations or conveyances of mineral rights or of mineral leases of every kind and character; and (x) any discrepancy between the description set forth on Exhibit "A" hereto and the description by which Grantor acquired the tract of which the Property constitutes all or a part.

TO HAVE AND TO HOLD the Property, with all and singular the rights, members and appurtenances thereof, to the same being, belonging, or in anywise appertaining, to the only proper use, benefit and behoof of Grantee forever in fee simple, subject to the matters set forth in the paragraph immediately preceding this paragraph (the "**Permitted Exceptions**").

AND Grantor shall warrant and forever defend the right and title to the Property unto Grantee against the claims of all persons claiming by, through or under Grantor, excepting only those claims arising by reason of the Permitted Exceptions.

NOTWITHSTANDING ANYTHING CONTAINED HEREIN TO THE CONTRARY, THE PROPERTY AND ANY BUILDINGS, OTHER STRUCTURES AND IMPROVEMENTS, FIXTURES AND REAL AND PERSONAL PROPERTY, IF ANY, HEREIN CONVEYED ARE HEREBY CONVEYED BY GRANTOR TO GRANTEE UPON AN "AS IS" AND "WHERE IS" BASIS, WITH ALL KNOWN AND UNKNOWN ENVIRONMENTAL CONDITIONS AND LIABILITIES (INCLUDING WITHOUT LIMITATION STRICT LIABILITY). NEITHER GRANTOR NOR ANY PERSON OR ENTITY OF ANY KIND OR NATURE WHATSOEVER ACTING FOR OR ON BEHALF OF GRANTOR EITHER HAS MADE OR HEREBY MAKES ANY REPRESENTATION OR WARRANTY WHATSOEVER WITH RESPECT THERETO, WHETHER EXPRESS, IMPLIED, OR STATUTORY, INCLUDING, WITHOUT LIMITATION, ANY REPRESENTATION OR WARRANTY AS TO THE VALUE, QUANTITY, CONDITION, SALABILITY, OBSOLESCENCE, MERCHANTABILITY, FITNESS OR SUITABILITY FOR USE OR WORKING ORDER THEREOF. GRANTEE HAS ACQUIRED THE PROPERTY "AS IS" AND "WHERE IS", WITH ALL KNOWN AND UNKNOWN ENVIRONMENTAL CONDITIONS AND LIABILITIES (INCLUDING WITHOUT LIMITATION STRICT LIABILITY). GRANTEE HAS MADE SUCH INSPECTION OF THE PROPERTY AS IT BELIEVES TO BE WARRANTED UNDER THE CIRCUMSTANCES AND HAS NOT RELIED UPON ANY REPRESENTATION OF GRANTOR.

This instrument shall inure to the benefit of, and shall be binding upon, Grantor and Grantee and their respective successors and assigns.

IN WITNESS WHEREOF, Grantor has caused this instrument to be executed and its corporate seal to be affixed hereunto by its duly authorized officers as of the day and year first above written.

[Signature on Following Page]

IN WITNESS WHEREOF, Grantor has signed and sealed this Deed, the day and year first above written.

Signed, sealed and delivered
in the presence of:

Martine Kmskein
Unofficial Witness

Nancy Elaine Horton
Official Witness, Notary Public

My commission expires: _____

[NOTARY SEAL]

Nancy Elaine Horton
Notary Public
Effingham County, Ga
Expires April 29, 2020

Signed, sealed and delivered
in the presence of:

Martine Kmskein
Unofficial Witness

Nancy Elaine Horton
Official Witness, Notary Public

My commission expires: _____

[NOTARY SEAL]

Nancy Elaine Horton
Notary Public
Effingham County, Ga
Expires April 29, 2020

Grantor:

ABERCORN ISLAND, LLC,
a Georgia limited liability company

By: W. Waldo Bradley (SEAL)
Name: W. Waldo Bradley
Title: Manager

By: Daniel H. Bradley (SEAL)
Name: Daniel H. Bradley
Title: Manager

Exhibit "A"

Property – Legal Description

Parcel 1:

All that certain tract or parcel of land known as Abercorn Island, situate, lying and being on or near the Savannah River in the 9th G. M. District of Effingham County, Georgia containing 2,100 acres, more or less, and more particularly described as follows:

Beginning at a point in the centerline of Abercorn Creek at the point where the said, centerline intersects the low water mark of the Savannah River and running thence westerly, northwesterly, northerly, northeasterly, and easterly, following the meanderings of the centerline of the said Abercorn Creek, to the point of its intersection with the centerline of Bear Creek and Collis Creek; thence continuing along the northeasterly, northerly, southeasterly, and southerly meanderings of the centerline of said Collis Creek to the point of the intersection of the centerline of said Collis Creek with the low water mark of the Savannah River; thence following along the low water mark of the Savannah River to the point in the centerline of Abercorn Creek, which marks the point of beginning; specifically excluding therefrom and reserving unto Party of the First Part, its successors or assigns, the two marsh islands and/or hammocks lying in or near Collis Creek at or near its junction with the Savannah River, as shown on the map hereinafter referred to. Said conveyed lands are more fully shown outlined in red on a boundary map attached hereto entitled "Boundary Map No. 1. Argent Lumber Co. Tract Effingham County, Georgia", made and prepared under the direction of and certified by J. Dean Gowen, Georgia Registered Surveyor No. 6, dated July 30, 1959, which map by specific reference thereto is made a part hereof. (For Plat see Plat Book 4, Page 149)

Parcel 2:

ALSO, all that certain tract or parcel of land situate lying, and being in Effingham County Georgia, containing 6.92 acres, more or less, and more particularly described as follows: Beginning at a concrete monument identified on the Gowen plat of survey hereinafter referred to as Station No. 7, which concrete monument is located by reference to the grid coordinates, in chains, of the Georgia Coordinate System, East Zone, at Y(Lat.) 12,469.39 and X(Dep.) 12,198.18 and from said point of beginning running thence N 13°34'E 6.30 chains to a concrete monument; thence S 78°46'E 12.05 chains to a stake on the western bank of Abercorn Creek; thence S 51°49'W 1.31 chains to a point on the western bank of Abercorn Creek; thence following the meanderings of the western bank of Abercorn Creek to an iron rod on the western bank of said Abercorn Creek; thence N 78°46'W 0.88 chains to a point; thence continue N 78°46'W 7.20 chains to the concrete monument marking the point of beginning. TOGETHER WITH the nonexclusive right of ingress and egress to and from the said 6.92 acre, more or less, parcel of land by use of a thirty (30) foot strip of land running N 78°46'W along the southern boundary of adjoining lands of the Party of the First Part lying between the property herein conveyed and the Old Augusta Road. The grant of this 6.92-acre, more or less, tract is made specifically subject to any and all rights of any person or persons in and to any public landing located within the boundaries thereof. Said tract of land and easement area as hereby conveyed are more fully shown, described and delineated upon a boundary map of a transit survey of said lands, made and prepared under the direction of and certified by J. Dean Gowen, Georgia Registered Surveyor No. 6, dated October 25, 1968, with the boundaries, metes, courses, distances and controls as shown thereon having been fixed and, determined in accordance with the grid coordinates, in chains, of the Georgia Coordinate system, East Zone, as established by the U. S. Coast and Geodetic Survey, a copy of which map is attached hereto and reference to which is hereby expressly made for a more full and complete description of the lands hereby conveyed. (For Plat see Plat Book 4, Page 147.)

Parcel 3:

ALSO, a right of way fifty (50) feet in width for, the nonexclusive use of the Party of the Second Part for road and/or railroad purposes across other lands of the Party of the First Part, said right of way being more particularly described as follows: For a point of beginning, start at a concrete monument identified on the Gowen map of survey dated July 30, 1959, hereinbefore referred to, as Station No. 17, which concrete monument is located by reference to the grid coordinates, in chains, of the Georgia Coordinate System, East Zone, at Y(Lat.) 12,654.72 and X(Dep.) 12,224.61 and from said concrete monument run thence S 9°18'E 8.84 chains to a point; thence S 43°18'E 17.53 chains to a point; thence S 68°12'W 11.51 chains to a point; thence S 60°34'W 7.95 chains to a point which is the POINT OF BEGINNING; thence from said POINT OF BEGINNING run S 66°47'E 7.32 chains to a point; thence S 78°00'E 8.72 chains to a point; thence S 73°12'E 47.01 chains to a point; thence S 70°43'E 19.51 chains to a point; thence S 86°51'E 2.68 chains to a point which marks the end of the right of way. Said right of way being twenty-five (25) feet in width on either side of said described line and is more fully shown, described and delineated upon the attached and hereinbefore referred to map entitled "Boundary Map No. 1. Argent Lumber Co. Tract, Effingham County, Georgia", made and prepared under the direction of and certified by J. Dean Gowen, Georgia Registered Surveyor No. 6, dated July 30, 1959, which map by specific reference thereto is made a part hereof.