

*A Conceptual Management Plan
for*

**Escribano Point Parcels in
Yellow River
WILDLIFE MANAGEMENT AREA
2006-2016**



Santa Rosa County, Florida



Florida Fish and Wildlife Conservation Commission
620 South Meridian Street
Tallahassee, Florida
32399-1600



Florida Department of Environmental Protection

Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

June 18, 2007

Mr. Gary Cochran
Florida Fish and Wildlife Conservation Commission
Division of Habitat and Species Conservation
620 South Meridian Street
Tallahassee, Florida 32399-1600

Re: Escribano Point Parcels in the Yellow River WMA

Lease #4447

Dear Mr. Cochran:

On **February 16, 2007**, the Acquisition and Restoration Council recommended approval of the **Escribano Point Parcels in the Yellow River Wildlife Management Area** management plan. Therefore, the Office of Environmental Services, acting as agent for the Board of Trustees of the Internal Improvement Trust Fund, approved the management plan for the **Escribano Point Parcels in the Yellow River Wildlife Management Area**. Pursuant to Sections 253.034 and 259.032, Florida Statutes, and Chapter 18-2, Florida Administrative Code this plan's ten-year update will be due on **February 16, 2017**.

Approval of this land management plan does not waive the authority or jurisdiction of any governmental entity that may have an interest in this project. Implementation of any upland activities proposed by this management plan may require a permit or other authorization from federal and state agencies having regulatory jurisdiction over those particular activities. Pursuant to the conditions of your lease, please forward copies of all permits to this office upon issuance.

Sincerely,

Paula L. Allen
Office of Environmental Services
Division of State Lands
Department of Environmental Protection

**A Conceptual Management Plan
for the
Escribano Point Parcels in Yellow River
Wildlife Management Area**

Santa Rosa County, Florida

Owned by: Board of Trustees and

Managed by: Florida Fish and Wildlife Conservation Commission



2006

Approved Timothy A. Breault
Timothy A. Breault, Director
Division of Habitat and Species Conservation

LAND MANAGEMENT PLAN EXECUTIVE SUMMARY

Lead Agency: Fish and Wildlife Conservation Commission

Common Name of Property: Escribano Point parcels, Yellow River Wildlife Management Area

Location: Santa Rosa County, Florida

Acreage Total: 1,166.1

Acreage Breakdown:

	Land Cover Classification	Acreage
Natural Communities:	<u>Bay Swamp</u>	<u>531</u>
	<u>Mixed Wetland Forest</u>	<u>258</u>
	<u>Pinelands</u>	<u>135</u>
	<u>Freshwater Marsh and Wet Prairie</u>	<u>104</u>
	<u>Hardwood Swamp</u>	<u>81</u>
	<u>Sandhill</u>	<u>37</u>
	<u>Mixed Pine-hardwood Forest</u>	<u>8</u>
	<u>Hardwood Hammocks and Forest</u>	<u>3</u>
	<u>Shrub and Brushland</u>	<u>4</u>
	<u>Open Water</u>	<u>4</u>

Lease/Management Agreement No.: Lease Number 4447 from the Board of Trustees of the Internal Improvement Trust Fund to the FWC (Appendix A)

Use: Single _____

Multiple X

Management Responsibilities:

Agency

FWC

Responsibilities

LEAD, LESSEE (Wildlife management, resource protection, law enforcement)

Designated Land Use: Wildlife Management Area

Sublease (s): None

Contract(s): None

Encumbrances: (1) Reservation of non-exclusive easement of 100 ft for right of way purposes;
(2) reservation of an undivided ½ interest of oil, gas and mineral rights.

Type of Acquisition: Florida Forever Program

Unique Features: Scenic shoreline along Blackwater Bay, East Bay and the Yellow River;
habitat for listed and rare species; natural ecological buffer for estuarine waters

Archaeological/Historical: one known site, a prehistoric shell midden

Management Needs: resource surveys, landscape connectivity, public recreation programs

Acquisition Needs/Acreage: 1,753 acres remaining to be purchased within the Escribano Point Florida Forever Project

Surplus Lands/Acreage: None

Public Involvement: Management Advisory Group consensus building meeting, Notification of Santa Rosa Board of County Commissioners, Public Hearing in Milton, review for consistency with local comprehensive plan, interagency cooperation in resource management

DO NOT WRITE BELOW THIS LINE (FOR DIVISION OF STATE LANDS USE ONLY)

ARC Approval Date _____ BTITF Approval Date: _____

18-2.021 Land Management Advisory Council.	
(4) Management Plans. Plans submitted to the division for council review under the requirements of Section 253.034 F.S. should contain where applicable to the management of resources the following:	
1. Land Management Executive Summary	ii-iii
2. The common name of the property.	1
3. A map showing the location and boundaries of the property plus any structures or improvements to the property.	3-4
4. The legal description and acreage of the property.	83
5. Description of legislative or executive directives that constrain use of the property.	1-2, 73-74, 79
6. The degree of title interest held by the Board, including reservations and encumbrances such as leases.	2
7. The land acquisition program (e.g., C. A. R. L., E. E. L., Save Our Coast), if any, under which the property was acquired.	1
8. The designated single use or multiple use management for the property, including other managing agencies.	58-60
9. Proximity of property to other significant State, local, or federal land or water resources.	6-7
10. A statement as to whether the property is within an aquatic preserve or a designated area of critical State concern or an area under study for such designation.	2
11. The location and description of known and reasonably identifiable renewable and non-renewable resources of the property including, but not limited to, the following:	--
A. Brief description of soil types, using U. S. D. A. maps when available;	9-10, 169-170
B. Archaeological and historical resources;	56, 58, 66, 130-140
C. Water resources including the water quality classification for each water body and the identification of any such water body that is designated as an Outstanding Florida Waters;	52-53, 54
D. Fish and wildlife and their habitat;	11-49
E. State and federally listed endangered or threatened species and their habitat;	11-33, 47-49, 57
F. Beaches and dunes;	53
G. Swamps, marshes and other wetlands;	11-19, 24-28, 30-33, 50, 52-55
H. Mineral resources, such as oil, gas and phosphate;	49-51

I. Unique natural features, such as coral reefs, natural springs, caverns, large sinkholes, virgin timber stands, scenic vistas, and natural rivers and streams; and	50
J. Outstanding native landscapes containing relatively unaltered flora, fauna, and geological conditions.	30-33, 55
12. A description of actions the agency plans, to locate and identify unknown resources such as surveys of unknown archaeological and historical resources.	62-73
13. The identification of resources on the property that are listed in the Natural Area Inventory.	11-33, 47-48, 55-56
14. A description of past uses, including any unauthorized uses of the property.	58
15. A detailed description of existing and planned use(s) of the property.	58-60, 62-74, 141-143
16. A description of alternative or multiple uses of the property considered by the managing agency and an explanation of why such uses were not adopted.	58-60
17. A detailed assessment of the impact of planned uses on the renewable and non-renewable resources of the property and a detailed description of the specific actions that will be taken to protect, enhance and conserve these resources and to mitigate damage caused by such uses.	59-60, 62-73
18. A description of management needs and problems for the property.	61-73
19. Identification of adjacent land uses that conflict with the planned use of the property, if any.	62
20. A description of legislative or executive directives that constrain the use of such property.	1-2, 73-74, 79
21. A finding regarding whether each planned use complies with the State Lands Management Plan adopted by the Trustees on March 17, 1981, and incorporated herein by reference, particularly whether such uses represent “balanced public utilization”, specific agency statutory authority, and other legislative or executive constraints. A copy of the plan may be obtained by writing to the Department of Environmental Protection, Division of State Lands, Bureau of Land Management Services, 3900 Commonwealth Boulevard, Mail Station 130, Tallahassee, Florida 32399-3000.	74
22. An assessment as to whether the property, or any portion, should be declared surplus.	60
23. Identification of other parcels of land within or immediately adjacent to the property that should be purchased because they are essential to management of the property.	1, 5, 8

<p>24. A description of the management responsibilities of each agency and how such responsibilities will be coordinated, including a provision that requires that the managing agency consult with the Division of Archives, History and Records Management before taking actions that may adversely affect archaeological or historic resources.</p>	<p>56, 61-62</p>
<p>25. A statement concerning the extent of public involvement and local government participation in the development of the plan, if any, including a summary of comments and concerns expressed.</p>	<p>9, 105-129</p>
<p>Additional Requirements—Per Trustees</p>	
<p>26. Letter of Compliance of the management plan with the Local Government Comprehensive Plan.</p>	<p>75, 155-156</p>
<p>253.034 State-Owned Lands; Uses. —</p>	
<p>(5) Each manager of conservation lands shall submit to the Division of State Lands a land management plan at least every 10 years in a form and manner prescribed by rule by the board and in accordance with the provisions of s. 259.032. Each manager of conservation lands shall also update a land management plan whenever the manager proposes to add new facilities or make substantive land use or management changes that were not addressed in the approved plan, or within 1 year of the addition of significant new lands.</p>	
<p>27. Plans for managed areas larger than 1,000 acres shall contain an analysis of the multiple-use potential of the property, which analysis shall include the potential of the property to generate revenues to enhance the management of the property.</p>	<p>59-60</p>
<p>28. Additionally, the land management plan shall contain an analysis of the potential use of private land managers to facilitate the restoration or management of these lands.</p>	<p>60, 78</p>
<p>253.036 Forest Management. —</p>	

<p>29. All land management plans described in s. 253.034(5) which are prepared for parcels larger than 1,000 acres shall contain an analysis of the multiple-use potential of the parcel, which analysis shall include the potential of the parcel to generate revenues to enhance the management of the parcel. The lead agency shall prepare the analysis, which shall contain a component or section prepared by a qualified professional forester which assesses the feasibility of managing timber resources on the parcel for resource conservation and revenue generation purposes through a stewardship ethic that embraces sustainable forest management practices if the lead management agency determines that the timber resource management is not in conflict with the primary management objectives of the parcel. For purposes of this section, practicing sustainable forest management means meeting the needs of the present without compromising the ability of future generations to meet their own needs by practicing a land stewardship ethic which integrates the reforestation, managing, growing, nurturing, and harvesting of trees for useful products with the conservation of soil, air and water quality, wildlife and fish habitat, and aesthetics.</p>	<p>49, 59-60</p>
<p>259.032 Conservation And Recreation Lands Trust Fund; Purpose. —</p>	
<p>(10)(a) State, regional, or local governmental agencies or private entities designated to manage lands under this section shall develop and adopt, with the approval of the board of trustees, an individual management plan for each project designed to conserve and protect such lands and their associated natural resources. Private sector involvement in management plan development may be used to expedite the planning process.</p>	
<p>30. Individual management plans required by s. 253.034(5), for parcels over 160 acres, shall be developed with input from an advisory group. Members of this advisory group shall include, at a minimum, representatives of the lead land managing agency, comanaging entities, local private property owners, the appropriate soil and water conservation district, a local conservation organization, and a local elected official.</p>	<p>9, 105-129</p>
<p>31. The advisory group shall conduct at least one public hearing within the county in which the parcel or project is located.</p>	<p>9, 113-129</p>
<p>32. Notice of such public hearing shall be posted on the parcel or project designated for management, advertised in a paper of general circulation, and announced at a scheduled meeting of the local governing body before the actual public hearing.</p>	<p>9</p>
<p>33. The management prospectus required pursuant to paragraph (9)(d) shall be available to the public for a period of 30 days prior to the public hearing.</p>	<p>9, 58, 141-143</p>

34. Individual management plans shall conform to the appropriate policies and guidelines of the state land management plan and shall include, but not be limited to:	---
A. A statement of the purpose for which the lands were acquired, the projected use or uses as defined in s. 253.034, and the statutory authority for such use or uses.	58
B. Key management activities necessary to preserve and protect natural resources and restore habitat, and for controlling the spread of nonnative plants and animals, and for prescribed fire and other appropriate resource management activities.	62-73
C. A specific description of how the managing agency plans to identify, locate, protect, and preserve, or otherwise use fragile, nonrenewable natural and cultural resources.	62-73
D. A priority schedule for conducting management activities, based on the purposes for which the lands were acquired.	62-73
E. A cost estimate for conducting priority management activities, to include recommendations for cost-effective methods of accomplishing those activities.	74-78
F. A cost estimate for conducting other management activities which would enhance the natural resource value or public recreation value for which the lands were acquired. The cost estimate shall include recommendations for cost-effective methods of accomplishing those activities.	74-78
35. A determination of the public uses and public access that would be consistent with the purposes for which the lands were acquired.	59-60
259.036 Management Review Teams.—	
36. The manager shall consider the findings and recommendations of the land management review team in finalizing the required 10-year update of its management plan.	74

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I. GENERAL INFORMATION

The following management plan is submitted for review to the Board of Trustees of the Internal Improvement Trust Fund (Trustees) of the State of Florida, through the Department of Environmental Protection, Division of State Lands (DSL), in compliance with paragraph 7 of Lease No 4447 (Appendix A) and pursuant to Chapters 253 and 259, Florida Statutes (F.S.), and Chapters 18-2 and 18-4, Florida Administrative Code (F.A.C.). Format and content were drafted in accordance with Acquisition and Restoration Council requirements for management plans and the model plan outline provided by the staff of DSL. The common name of this property, taken from the name of the Florida Forever Land Acquisition Project, is Escribano Point Parcels in Yellow River Wildlife Management Area (EPYRWMA).

A. Land Acquisition and Management

1. Location

The EPYRWMA consist of 1,166.1 acres in Santa Rosa County, which are leased to the Florida Fish and Wildlife Conservation Commission (FWC) by the Trustees and which are the subject of this Conceptual Management Plan (CMP). They are located approximately 6 miles northwest of Navarre, 6 miles southeast of Milton, 14 miles northeast of Pensacola (across Pensacola Bay) and 29 miles southeast of Crestview (Figure 1 and Figure 2). The northernmost of the three FWC-managed parcels is bordered on the east by Eglin Air Force Base (AFB), on the south by Northwest Florida Water Management District (NFWMD) -owned lands within the Yellow River Wildlife Management Area, and on the west and north by herbaceous (estuarine) wetlands along Blackwater Bay, including Catfish Basin on the east, and the Weaver River (which leads into the Yellow River) on the north. The southern two parcels are bordered by Eglin AFB on the north, east, and part of the southern boundary; and on part of the southern boundary and the west by private lands extending to East Bay.

2. Purchase

The EPYRWMA was purchased by the State of Florida under the Florida Forever Program (Chapter 259.105, F. S.) as part of the Escribano Point Florida Forever Land Acquisition Project (1). (Numbers in parentheses () correspond to numbered items in bibliography.) Figure 3 shows proposed land acquisitions. It is managed by the FWC. The Escribano Point Florida Forever project comprises approximately 2,914 acres, with 1,753 acres remaining to be acquired. This land acquisition project is distributed over a north-south distance of approximately 7 miles and over an east-west distance of approximately 4 miles extending to the mouth of the Yellow River.

3. Management Authority

FWC is the designated lead managing agency for the EPYRWMA under the authority granted by lease number 4447 from the Trustees' agent, the DSL. Further management authority derives from Article IV, Section 9 of the Florida Constitution as well as the guidance and

directives of Chapters 372, 253, 259, 327, 370, 403, 870, 373, 375, 378, 487, and 597 of the F. S. These laws provide the authority of the FWC with regard to protection and management of the State's fish and wildlife resources.

4. Management Directives

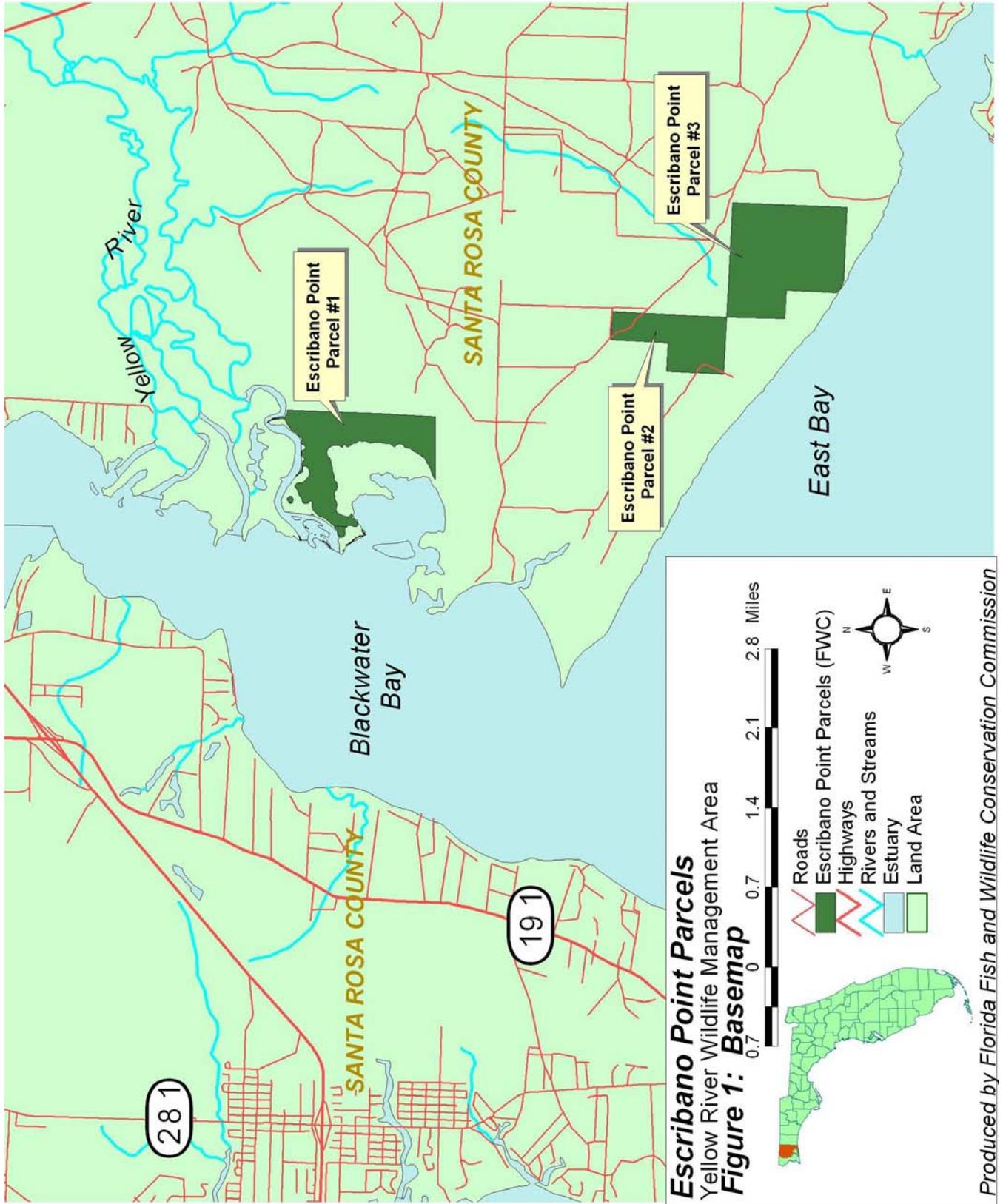
The 50-year Trustees lease agreement with FWC directs FWC to “..manage the leased premises only for the conservation and protection of natural and historical resources and resource-based, public outdoor recreation which is compatible with the conservation and protection of these public lands, as set forth in subsection 253.032(11), FS...” The lease agreement further directs FWC to “..implement applicable Best Management Practices for all activities conducted under this lease in compliance with paragraph 18-2.018(2)(h), FAC, which have been selected, developed, or approved by LESSOR, LESSEE or other land managing agencies for the protection and enhancement of the leased premises.” In addition to lease terms are applicable policies of the Trustees serving to ensure compatible uses with the public interest, and acquisition and management purposes for state-owned lands, and to avoid adverse impacts to natural resources on state-owned lands.

5. Title Interest and Encumbrances

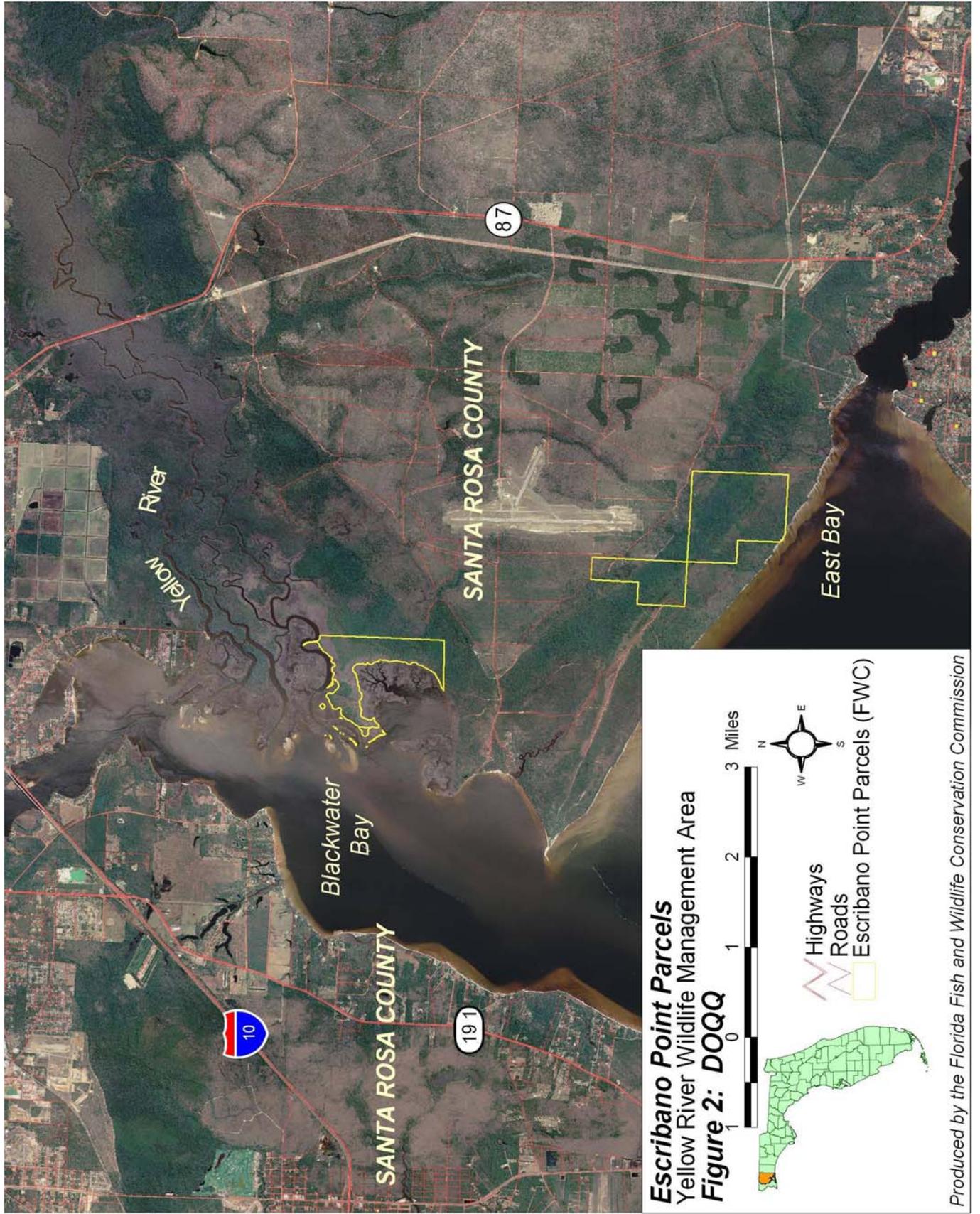
The legal description for the EPYRWMA is contained within the Trustees Lease Number 4447 (Appendix A). Legal descriptions for all properties within the lease, amendments, and interim management letters are located in Central Files of the FWC as well as the DSL for the Trustees. All lands are posted as a Wildlife Management Area. The degree of title interest held by the Trustees is fee simple. The two encumbrances of record listed in the Commitment for Title Insurance (Commonwealth Land Title Insurance Company, 2003) are the following: 1. reservation of a 100-ft, nonexclusive right-of-way easement; and 2. reservation of an undivided ½ interest in oil, gas and mineral rights.

B. Proximity to Other Public Properties

The Escribano Point Parcels are near or contiguous with a large number of government-managed areas or facilities. Table 1 lists public conservation lands in the vicinity of these parcels. These conservation lands are illustrated in Figure 4. The northernmost parcel (Figure 1, Parcel #1) in EPYRWMA is adjacent to the Yellow River Marsh Aquatic Preserve. EPYRWMA is not within any Area of Critical State Concern (Chapter 380.05, F. S.).



Produced by Florida Fish and Wildlife Conservation Commission



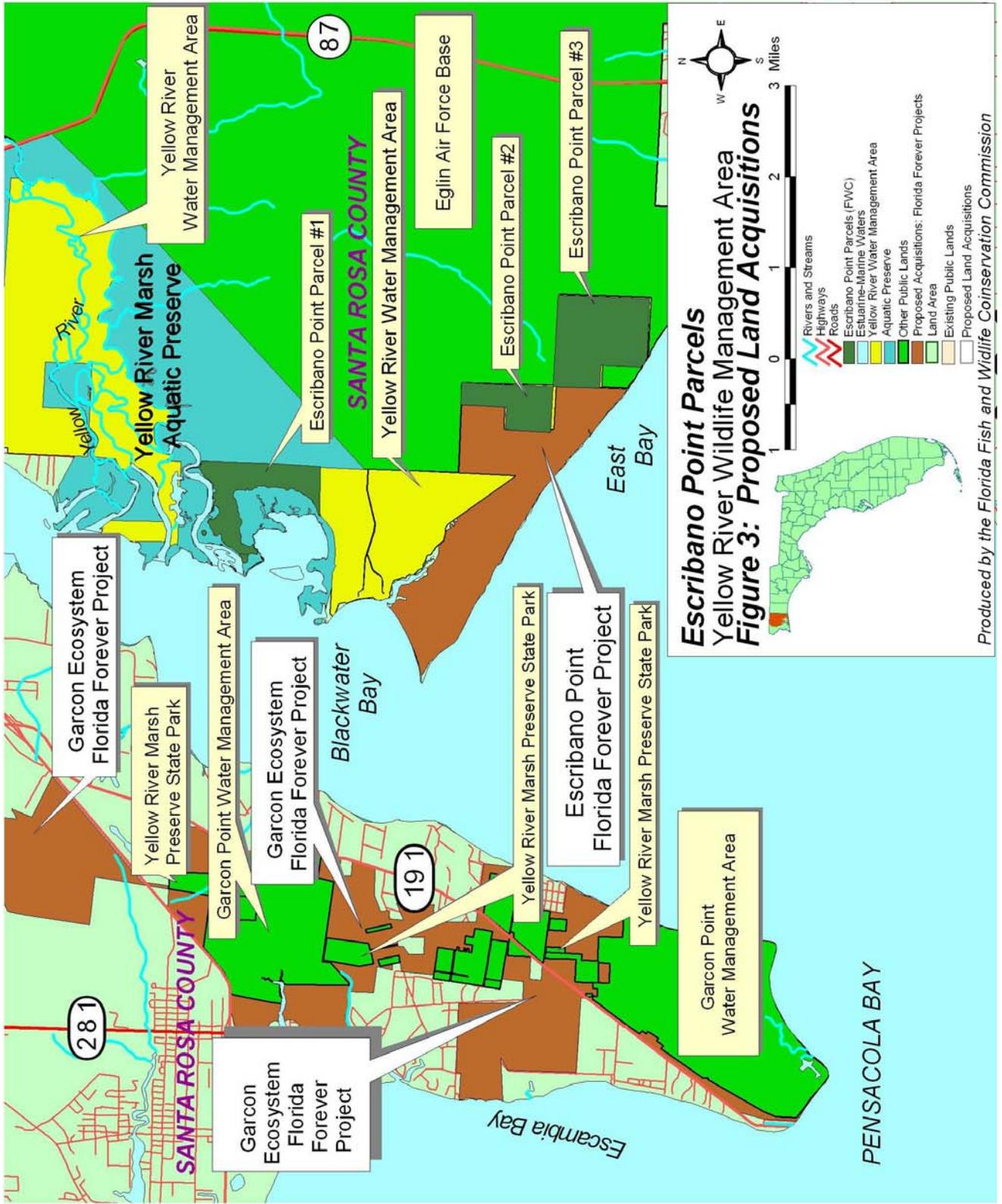


Table 1. Conservation lands in proximity to the EPYRWMA

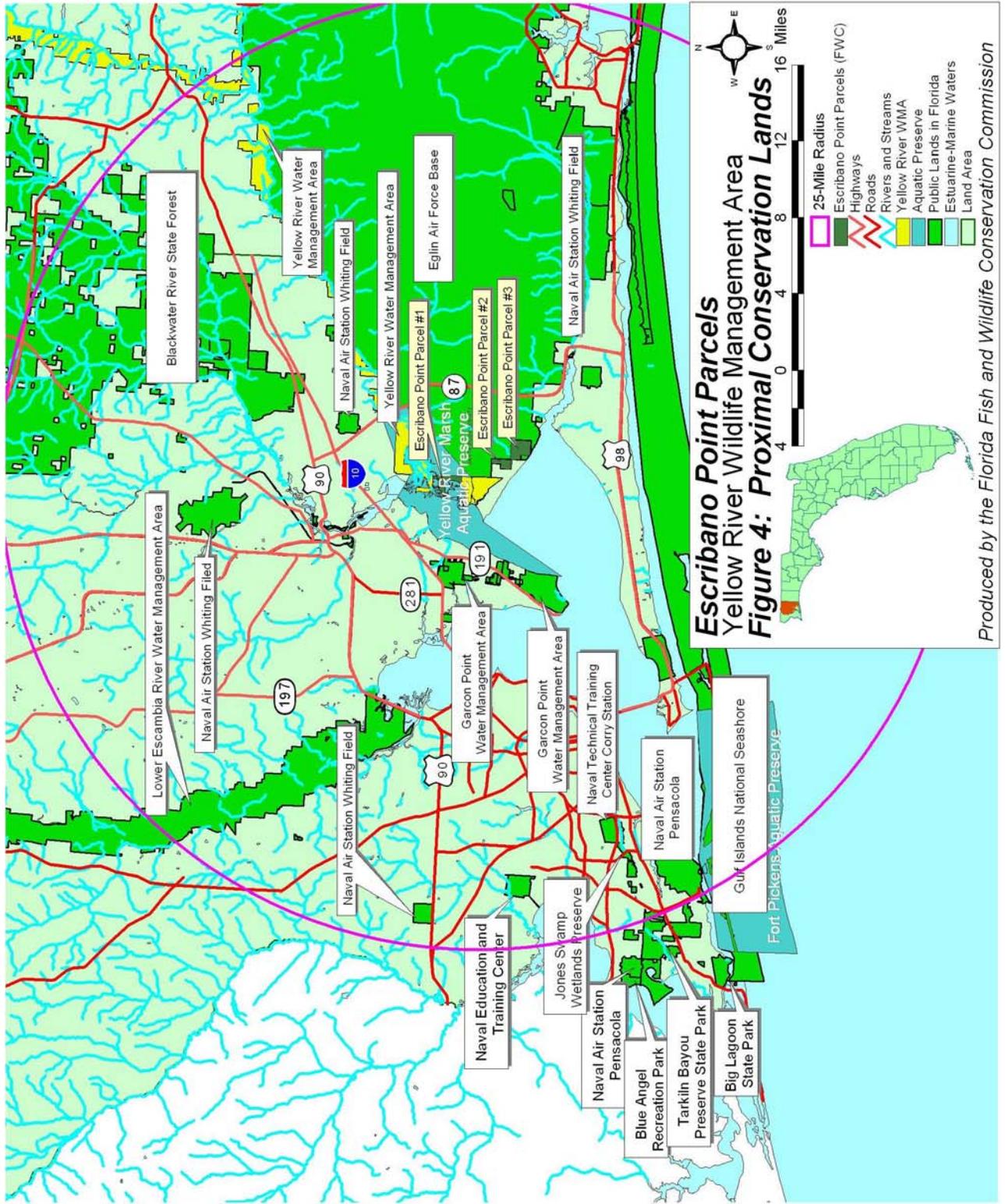
Federal	Managing Agency
Eglin Air Force Base	DOD-A
Naval Air Station Pensacola	DOD-N
Naval Air Station Whiting Field	DOD-N
Naval Education and Training Center	DOD-N
Naval Technical Training Center Corry Station	DOD-N
Gulf Islands National Seashore	USDI-NPS

State of Florida	Managing Agency
Blackwater River State Forest	DACS-DOF
Fort Pickens Aquatic Preserve	DEP-CAMA
Yellow River Marsh Aquatic Preserve	DEP-CAMA
Tarkiln Bayou Preserve State Park	DEP-DRP

Water Management District	Managing Agency
Garcon Point Water Management Area	NWFWMD
Yellow River Water Management Area	NWFWMD

Local Government	Managing Agency
Jones Swamp Wetlands Preserve	EC-DNES

<u>Acronym Key</u>	<u>Agency Name</u>
DACS-DOF	Florida Department of Agriculture and Consumer Services, Division of Forestry
DEP-CAMA	Florida Department of Environmental Protection, Coastal and Aquatic Managed Ares
DEP-DRP	Florida Department of Environmental Protection, Division of Recreation and Parks
DOD-A	U. S. Department of Defense, Air Force
DOD-N	U. S. Department of Defense, Navy
EC-DNES	Escambia County, Department of Neighborhood and Environmental Services
NWFWMD	Northwest Florida Water Management District
USDI-NPS	U. S. Department of Interior, National Park Service



C. Prospective Land Acquisitions

Lands remaining to be purchased in the Escribano Point Florida Forever project comprise approximately 1,849.6 acres. The Escribano Point Florida Forever Land Acquisition Project in its entirety consists of five separate areas, distributed over a north-south distance of approximately 7 miles, and over an east-west distance of approximately 4 miles extending to the mouth of the Yellow River (Figure 3). Purposes and resource values for acquisition and management of the EPYRWMA are detailed in the Escribano Point Florida Forever Land Acquisition Project, as presented in the 2006 Florida Forever Five Year Plan (1). As of October, 2006 there were 26 private landowners remaining in the Escribano Point Florida Forever Project according to information from the Bureau of Survey and Mapping in the DSL.

Table 2. List of landowners remaining within the Escribano Point Florida Forever Project, Santa Rosa County Florida (October, 2006).

Landowner Name	Acres
Adams, William F and Rebecca L	16.5
Bingham, Carolyn Y (Jackson)	1.6
Boswell, Peggy S	0.8
Brown, Otis L and Leila Mae	26.0
Budzowski, David M and Wiggington, Hazel M	2.0
Coopers Basin LLC	126.0
Duren, John E and Mary P	6.3
Forman, Miles Austin and Charles, Roy Trustees	9.9
Francoeur, Raymond R and Judith I	1.7
Green, William O and Regina D	3.1
Harrell, James and Peggy	0.3
Holdiness, John	0.8
JTL Escribano LLC	1541.9
KWY Investments LLC	40.0
Pierce, Rufus E and Jean C	1.6
Rivers, Ernest E	39.6
Rogers, Michael J	14.1
Silver, Frank M and Dale R	0.0
Smith, Cameron Fisher and Charles F Jr	5.7
Smith, Charles R and Glenda M	2.6
Smith, Fred C	2.5
The Fish Camp Inc	1.4
Waldon, Imanda Carroll (Watson)	0.8
Whittington, Roland J and Judy D	1.4
York, Ernest E and Marie H	1.5
York, Hubert A and Jacqueline G	1.6
Total Remaining Acreage	1849.6

D. Public Involvement

The FWC planning process seeks to obtain approval for a CMP for the property. This process includes the following: 1. identification of public purposes set forth for the property; 2. synthesis and analysis of resource information about the property; 3. gathering stakeholder input from members of a management advisory group; 4. FWC staff development of management intent concepts, goals and objectives, and strategies to accomplish management of the WMA; 5. presentation of proposed management intent, goals and objectives, and problems and strategies to the public, and consideration of public comments and interest in use of the property; 6. FWC agency-wide review of the draft CMP; 7. external review by the management advisory group, cooperating agencies, local government, Water Management Districts, the Soil and Water Conservation District, Florida Natural Areas Inventory (FNAI), Department of State; and 8. delivery of the proposed CMP to the Acquisition and Restoration Council (ARC), advisor to the Trustees, for external review and consideration for approval.

The FWC conducted a Management Advisory Group (MAG) meeting as required by Ch. 259.032(10)(b), F.S in Milton, Florida on September 7, 2005. This meeting served to obtain input from both public and private stakeholders regarding management of the EPYRWMA. Results of this meeting were provided to the public, and were used by FWC personnel in the development of goals, objectives and strategies for this CMP. A summary of issues and opportunities raised by the MAG, as well as a listing of participants, is included as Appendix B. A public hearing was advertised and conducted as required by Ch. 259.032(10), F.S. on September 29, 2005 to inform the public and gain additional input about the proposed CMP for the EPYRWMA. The report of that hearing is also included in Appendix B.

II. NATURAL AND CULTURAL RESOURCES

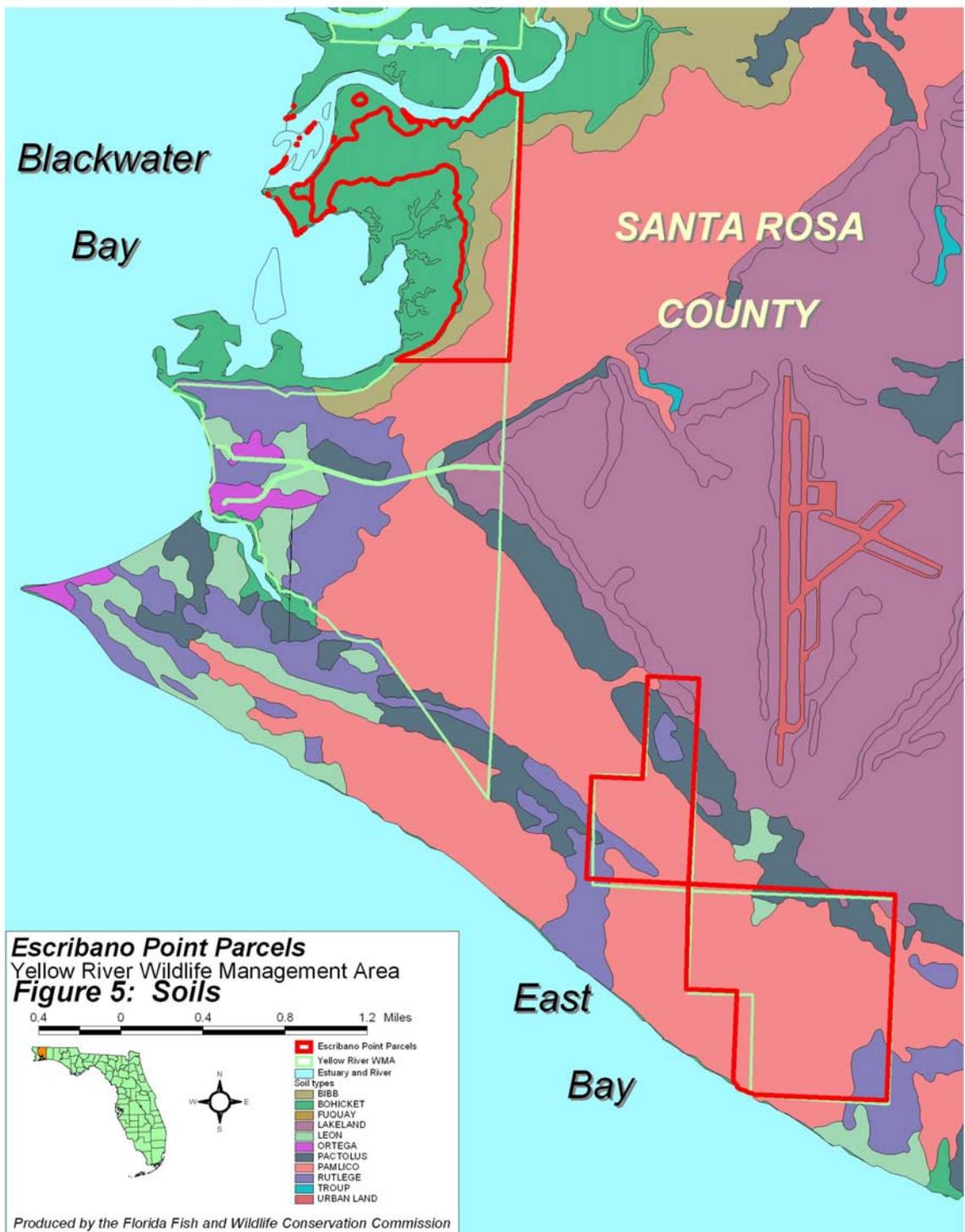
A. Physiography

1. Topography

The coastal portion of Santa Rosa County along Blackwater Bay and East Bay extends from sandhill elevations of over 100 ft. down to sea level (22). The northernmost of the three Escribano Point parcels is flat and low, with elevations ranging from approximately 5 ft. to sea level. Elevations in the southern two parcels are mostly gently sloping from 25 ft. down to sea level. However, small areas of the northeastern corners of these two parcels reach into higher sandhills, with elevations in the range of 45-75 ft.

2. Soils

Seven soil types occurring within EPYRWMA are distributed as shown in Figure 6. Appendix I lists the names and descriptions of these soil types as provided by the U. S. Department of Agriculture, Natural Resources Conservation Service (2, 3). Relationships of soil types to predicted wildlife habitats and natural community types are tabulated in Appendix I.



3. Climate

Santa Rosa County experiences a warm temperate climate. The temperature for the City of Milton during the period 1948 to 2005 ranged from an average of 51°F in January to 81°F in July (4). Average total annual precipitation during the period 1948 to 2004 was 67 inches, during which period rainfall was highest during the month of July (7.81 in), and lowest in October (3.73 in). The driest months were May (4.25 in) and October. The wet season normally extends from June (7.54 in) through September (6.19 in), while winter is normally considered to be the dry season.

B. Vegetation

1. Florida Natural Areas Inventory Natural Community Descriptions

Data on natural community types of EPYRWMA and their plant species compositions were collected and analyzed by the FNAI (5, 19; tables 4-15). Figures 6 through 9 are maps showing historic and recent landcover and natural communities. Acreages of these natural community types, measured from recent (year 2004) and historic (year 1949) photographic imagery, are summarized in Table 3.

Table 3. FNAI natural community types and acreage summary interpreted from recent and historic photographic imagery (5) of EPYRWMA. Acreages are based on the leased acreage.				
Natural Community	2004 Photo Imagery		1949 Photo Imagery	
	Acres	% Total	Acres	% Total
basin swamp	395	33.9	540	46.3
baygall	277	23.8	116	9.9
dome swamp	1	0.0	Not mapped	Not mapped
estuarine tidal marsh	110	9.5	170	14.6
floodplain forest	186	16.0	138	11.8
maritime hammock	4	0.4	5	0.4
mesic flatwoods	62	5.4	65	5.6
ruderal	1	0.1	Not mapped	Not mapped
sandhill	39	3.4	39	3.4
wet flatwoods	62	5.3	38	3.3
wet prairie	26	2.3	54	4.6
xeric hammock	1	0.1	1	0.1
Total	1166	100.0	1165	100.0

Basin Swamp

Basin swamps are forested wetlands that occur in large, shallow depressions on the landscape, typically with no water outlets except at times of very high water. In the EPYRWMA the largest

basin swamp extends through the two southern sections. This swamp occurs within what appears to be an ancient embayment associated with coastal dune-swale-bay topography, and extends well beyond the WMA boundaries to the east and west. Basin swamps also occur within flatwoods and baygall vegetation in the southern sections of the WMA.

Typical trees in the canopy and subcanopy layers include slash pine (*Pinus elliottii*), sweetbay (*Magnolia virginiana*), swamp tupelo (*Nyssa sylvatica* var. *biflora*), swamp bay (*Persea palustris*), red maple (*Acer rubrum*), and pond cypress (*Taxodium ascendens*). Although primarily evergreen, small stands of swamp tupelo and pond cypress may occur in the lowest areas within the swamp, while these are mixed with the evergreen species and a dense understory of shrubs in the higher areas within the swamp. Shrubs include black titi (*Cliftonia monophylla*), white titi (*Cyrilla racemiflora*), myrtle dahoon (*Ilex cassine* var. *myrtifolia*), large gallberry (*I. coriacea*), gallberry (*I. glabra*), swamp azalea (*Rhododendron viscosum*), highbush blueberry (*Vaccinium corymbosum*), rusty blackhaw (*Viburnum rufidulum*), and fetterbush (*Lyonia lucida*). Herbs are sparse, and include beakrushes (*Rhynchospora* sp.), Virginia chain fern (*Woodwardia virginica*), flattened pipewort (*Eriocaulon compressum*), narrowfruit horned beaksedge (*R. inundata*), yellow-eyed grasses (*Xyris* sp.) and sphagnum moss (*Sphagnum* sp.). Vines include laurel greenbrier (*Smilax laurifolia*) and poison ivy (*Toxicodendron radicans*).

In one location within the largest basin swamp, a small seepage rivulet was found, near the base of a sandy slope, where Florida anisetree (*Illicium floridanum*) and spoonleaf sundew (*Drosera intermedia*) were found within the more typical vegetation described above. It is likely that other rivulets like this one occur along the base of this slope.

Within the largest basin swamp, logging roads (and accompanying borrow ditches) extend into the swamp from two sides, and an access road crosses the swamp on the western end of EPYRWMA. The swamp and baygall complex in this basin were heavily logged in the early to mid 1990s. Currently the center of this area has few trees remaining and a dense cover of titi and other baygall shrubs. In addition to the timbering disturbance, the roads and ditches in the swamp and baygall likely negatively influence the hydrology of the swamp, at least at a localized level. The 1949 aerial photography shows this swamp and baygall complex intact, with only a few small islands of wet flatwoods that, based upon their geographic alignment, appear to be ancient dune ridges or sand bars. Hydrologic assessment of the impact of the existing roads and ditches in, and through, the large basin swamp is warranted.

Table 4. Plant species observed in Basin Swamp in EPYRWMA.		
<u>Scientific Name</u>	<u>Common Name</u>	<u>Notes</u>
<i>Acer rubrum</i>	red maple	
<i>Cliftonia monophylla</i>	black titi	
<i>Cyrilla racemiflora</i>	Titi	
<i>Drosera intermedia</i>	spoonleaf sundew	
<i>Eriocaulon compressum</i>	flattened pipewort	
<i>Ilex cassine</i> var. <i>myrtifolia</i>	myrtle dahoon	

<u>Scientific Name</u>	<u>Common Name</u>	<u>Notes</u>
<i>Ilex coriacea</i>	large gallberry	
<i>Ilex glabra</i>	Gallberry	
<i>Illicium floridanum</i>	Florida anisetree	
<i>Lyonia lucida</i>	Fetterbush	
<i>Magnolia virginiana</i>	Sweetbay	
<i>Myrica cerifera</i>	wax myrtle	
<i>Nyssa sylvatica</i> var. <i>biflora</i>	swamp tupelo	
<i>Persea palustris</i>	swamp bay	
<i>Pinus elliottii</i>	slash pine	
<i>Rhododendron viscosum</i>	swamp azalea	
<i>Rhynchospora inundata</i>	narrowfruit horned beaksedge	
<i>Rhynchospora</i> sp.	Beakrush	
<i>Smilax laurifolia</i>	laurel greenbrier	
<i>Sphagnum</i> sp.	sphagnum moss	
<i>Taxodium ascendens</i>	pond cypress	
<i>Vaccinium corymbosum</i>	highbush blueberry	
<i>Viburnum rufidulum</i>	rusty blackhaw	
<i>Woodwardia virginica</i>	Virginia chain fern	
<i>Xyris</i> sp.	yellow-eyed grass	

Baygall

Baygalls are forested or shrub wetlands dominated by evergreen, broad-leaved trees and shrubs. Trees in the canopy include sweetbay (*Magnolia virginiana*), swamp bay (*Persea palustris*), slash pine (*Pinus elliottii*), and swamp tupelo (*Nyssa sylvatica* var. *biflora*). Occasionally Atlantic white cedar (*Chamaecyparis thyoides*) can also be found. All of these tree species, in addition to black titi (*Cliftonia monophylla*), are also typical in the subcanopy. Dominant species in the shrub layers include black titi, white titi (*Cyrilla racemiflora*), large gallberry (*Ilex coriacea*), fetterbush (*Lyonia lucida*), wax myrtle (*Myrica cerifera*), gallberry (*I. glabra*), and red bay (*Persea palustris*). Other shrub species observed include odorless bayberry (*Myrica inodora*), coastalplain St. John's wort (*Hypericum brachyphyllum*), and woolly huckleberry (*Gaylussacia mosieri*).

In well developed baygalls, where woody vegetation is dense, the herbaceous layer is sparse due to the dense shade. In some areas within the EPYRWMA, the baygall vegetation has been disturbed by past timbering activities, and open patches of herbaceous vegetation occur in scraped or rutted areas where mineral soils were exposed. There may also be naturally open patches due to past fires which may have scarified small spaces within the otherwise dense vegetation, or in remant wet prairie in areas that are now overgrown with baygall. Species in the

open herbaceous layer of the baygall community include chalky bluestem (*Andropogon virginicus* var. *glaucus*), Chapman's beaksedge (*Rhynchospora chapmanii*), beakrushes (*Rhynchospora* sp.), sphagnum moss (*Sphagnum* sp.), yellow-eyed grasses (*Xyris* sp), and, in one location, whitetop pitcherplants (*Sarracenia leucophylla*). Vines are abundant, and include largely laurel greenbrier (*Smilax laurifolia*), eastern poison ivy (*Toxicodendron radicans*), and muscadine (*Vitis rotundifolia*).

A variation of the baygall vegetation at EPYRWMA is the slash pine/titi association, where the predominant species are slash pine, black titi, and white titi. These areas are often transitional between basin swamp and uplands; this vegetatin type also occurs in historic basin swamp areas that have been timbered and drained, or in wet prairie areas where fire has been excluded for long periods of time.

Table 5. Plant species observed in Baygall in EPYRWMA.		
<u>Scientific Name</u>	<u>Common Name</u>	<u>Notes</u>
<i>Andropogon virginicus</i> var. <i>glaucus</i>	chalky bluestem	W
<i>Chamaecyparis thyoides</i>	Atlantic white cedar	
<i>Cliftonia monophylla</i>	black titi	
<i>Cyrilla racemiflora</i>	Titi	
<i>Gaylussacia mosieri</i>	woolly huckleberry	
<i>Hypericum brachyphyllum</i>	coastalplain St. John's wort	
<i>Ilex coriacea</i>	large gallberry	
<i>Ilex glabra</i>	Gallberry	
<i>Lyonia lucida</i>	Fetterbush	
<i>Magnolia virginiana</i>	Sweetbay	
<i>Myrica cerifera</i>	wax myrtle	
<i>Myrica inodora</i>	odorless bayberry	
<i>Nyssa sylvatica</i> var. <i>biflora</i>	swamp tupelo	
<i>Persea palustris</i>	swamp bay	
<i>Pinus elliotii</i>	slash pine	
<i>Rhynchospora chapmanii</i>	Chapman's beaksedge	
<i>Rhynchospora</i> sp.	Beakrush	
<i>Sarracenia leucophylla</i>	whitetop pitcherplant	Endangered-FL
<i>Serenoa repens</i>	saw palmetto	
<i>Smilax laurifolia</i>	laurel greenbrier	
<i>Sphagnum</i> sp.	sphagnum moss	
<i>Taxodium ascendens</i>	pond cypress	
<i>Toxicodendron radicans</i>	eastern poison ivy	

<u>Scientific Name</u>	<u>Common Name</u>	<u>Notes</u>
<i>Vitis rotundifolia</i>	Muscadine	
<i>Xyris</i> sp.	yellow-eyed grass	

Dome Swamp

Dome swamps are typically small forested wetlands occurring in depressions within flatwoods and sandhills. In the EPYRWMA, only one dome swamp is documented near the northern border of the middle section of the WMA. The canopy and subcanopy trees include swamp tupelo (*Nyssa sylvatica* var. *biflora*) and pond cypress (*Taxodium ascendens*). Species in the tall and short shrub layers are myrtle dahoon (*Ilex cassine* var. *myrtifolia*), large gallberry (*I. coriacea*), swamp tupelo (*Nyssa sylvatica* var. *biflora*), swamp bay (*Persea palustris*), fetterbush (*Lyonia lucida*), and coastalplain St. John's wort (*Hypericum brachyphyllum*). Species in the herbaceous layer include broomsedge bluestem (*Andropogon virginicus*), longleaf threeawn (*Aristida palustris*), flattened pipewort (*Eriocaulon compressum*), Carolina redroot (*Lachnanthes caroliana*), water cowbane (*Oxypolis filiformis*), panic grasses (*Panicum* sp.), beakrushes (*Rhynchospora* sp.), yellow-eyed grasses (*Xyris* spp.) and sphagnum moss (*Sphagnum* sp.). Laurel greenbrier (*Smilax laurifolia*) is the predominant vine. This dome swamp appears in the 1949 aerial photography and the land adjacent to the swamp appears in those photographs to have been scraped, for unknown reasons, but perhaps to create a more permanent water source in the area.

<u>Scientific Name</u>	<u>Common Name</u>	<u>Notes</u>
<i>Andropogon virginicus</i>	broomsedge bluestem	W
<i>Aristida palustris</i>	longleaf threeawn	
<i>Eriocaulon compressum</i>	flattened pipewort	
<i>Hypericum brachyphyllum</i>	coastalplain St. John's wort	
<i>Ilex cassine</i> var. <i>myrtifolia</i>	myrtle dahoon	
<i>Ilex coriacea</i>	large gallberry	
<i>Lachnanthes caroliana</i>	Carolina redroot	
<i>Lyonia lucida</i>	Fetterbush	
<i>Nyssa sylvatica</i> var. <i>biflora</i>	swamp tupelo	
<i>Oxypolis filiformis</i>	water cowbane	
<i>Panicum</i> sp.	panic grass	
<i>Persea palustris</i>	swamp bay	
<i>Rhynchospora</i> sp.	Beakrush	
<i>Smilax laurifolia</i>	laurel greenbrier	
<i>Sphagnum</i> sp.	sphagnum moss	

<u>Scientific Name</u>	<u>Common Name</u>	<u>Notes</u>
<i>Xyris</i> sp.	yellow-eyed grass	

Estuarine Tidal Marsh

The estuarine tidal marshes within the EPYRWMA occur at the confluence of the Escribano Point with Blackwater Bay, and along the coastline at Catfish Basin. These large marshes are dominated by black needle rush (*Juncus roemerianus*) with bands of sawgrass (*Cladium jamaicense*) within and on the fringes of the marsh. Shrubs are sparse, and are dominated by Carolina ash (*Fraxinus caroliniana*), with occasional red maple (*Acer rubrum*), indicating brackish water. Other herbs common in the marsh are Virginia iris (*Iris virginica*), swamp dock (*Rumex verticillatus*), and arrowhead (*Sagittaria* sp.). Also observed were cinnamon fern (*Osmunda cinnamomea*), and goldenrod (*Solidago* sp.) scattered throughout, and few small patches of cattail (*Typha* sp.). Overall the marsh appears to be in excellent condition.

Table 7. Plant species observed in estuarine tidal marsh in EPYRWMA.

<u>Scientific Name</u>	<u>Common Name</u>	<u>Notes</u>
<i>Acer rubrum</i>	red maple	
<i>Cladium jamaicense</i>	Sawgrass	
<i>Fraxinus caroliniana</i>	Carolina ash	
<i>Iris virginica</i>	Virginia iris	
<i>Juncus roemerianus</i>	needle rush	
<i>Osmunda cinnamomea</i>	cinnamon fern	CE
<i>Rumex verticillatus</i>	swamp dock	
<i>Sagittaria</i> sp.	Arrowhead	
<i>Solidago</i> sp.	Goldenrod	
<i>Typha</i> sp.	Cattail	

Floodplain Forest

Floodplain forests are hardwood forests that occur on drier soils at slightly higher elevations than floodplain swamp within river floodplains, and are flooded seasonally. In the EPYRWMA, floodplain forest is primarily associated with the Yellow River in the northernmost section, between tidal marsh and baygall or wet flatwoods. These forests are also on small islands within the tidal marsh; most of these were likely part of the mainland at one time but have been separated by ancient meandering of the river mouth.

In the floodplain forests on EPYRWMA slash pine (*Pinus elliottii*) is dominant in the canopy, although red maple (*Acer rubrum*), sweetbay (*Magnolia virginiana*), swamp tupelo (*Nyssa sylvatica* var. *biflora*), and bald cypress (*Taxodium distichum*) are common. All of these tree species also characterize the subcanopy. Red cedar (*Juniperus virginiana*), water oak

(*Quercus nigra*), live oak (*Q. virginiana*), and Atlantic white cedar (*Chamaecyparis thyoides*) are present, but less common. Shrubs are multi-layered and are dominated by wax myrtle (*Myrica cerifera*) and yaupon (*Ilex vomitoria*). Other shrubs include sapling swamp tupelo (*Nyssa sylvatica* var. *biflora*), Carolina ash (*Fraxinus caroliniana*), swamp bay (*Persea palustris*), large gallberry (*I. coriacea*), fetterbush (*Lyonia lucida*), red chokeberry (*Photinia pyrifolia*), and odorless bayberry (*M. inodora*). Other shrubs include swamp azalea (*Rhododendron viscosum*), bigleaf sumpweed (*Iva frutescens*), saltwater falsewillow (*Baccharis angustifolia*) cabbage palm (*Sabal palmetto*) and dwarf palmetto (*Sabal minor*).

The herbaceous layer in undisturbed floodplain forests is patchy, depending upon sunlight availability at the forest floor. Although past hurricanes opened up patches in the canopy, allowing considerable sunlight through, there is abundant downed woody debris on the ground as a result, that appears to be suppressing herbaceous vegetation. Patches of sawgrass (*Cladium jamaicense*) and needle rush (*Juncus roemerianus*) are common in areas adjacent to the estuarine tidal marsh. Other herbaceous species include spadeleaf (*Centella asiatica*), largeleaf marshpennywort (*Hydrocotyle bonariensis*), switchcane (*Arundinaria gigantea*), spadeleaf (*Centella asiatica*), Carolina redroot (*Lachnanthes caroliniana*), early whitetop fleabane (*Erigeron vernus*), foliage flower (*Phyllanthus angustifolius*), swamp dock (*Rumex verticillatus*), cinnamon fern (*Osmunda cinnamomea*), royal fern (*Osmunda regalis* var. *spectabilis*), and include false indigobush (*Amorpha fruticosa*). On one island in the EPYRWMA floodplain bracken fern (*Pteridium aquilinum*) can be found, indicating that, at one time, the land may have been part of a flatwood system but long ago was separated from the mainland and now is flooded seasonally by river overwash. Vines include laurel greenbrier (*Smilax laurifolia*), coral greenbrier (*Smilax walteri*), eastern poison ivy (*Toxicodendron radicans*), trumpet creeper (*Campsis radicans*), and muscadine (*Vitis rotundifolia*).

Table 8. Plant species observed in floodplain forest in Escribano Point WMA.		
<u>Scientific Name</u>	<u>Common Name</u>	<u>Notes</u>
<i>Acer rubrum</i>	red maple	
<i>Amorpha fruticosa</i>	false indigobush	
<i>Arundinaria gigantea</i>	Switchcane	
<i>Baccharis angustifolia</i>	saltwater falsewillow	
<i>Campsis radicans</i>	trumpet creeper	
<i>Centella asiatica</i>	Spadeleaf	
<i>Chamaecyparis thyoides</i>	Atlantic white cedar	
<i>Cladium jamaicense</i>	Sawgrass	
<i>Erigeron vernus</i>	early whitetop fleabane	
<i>Erythrina herbacea</i>	Coralbean	
<i>Fraxinus caroliniana</i>	Carolina ash	
<i>Hydrocotyle bonariensis</i>	largeleaf marshpennywort	
<i>Ilex coriacea</i>	large gallberry	

<u>Scientific Name</u>	<u>Common Name</u>	<u>Notes</u>
<i>Ilex vomitoria</i>	Yaupon	
<i>Iva frutescens</i>	bigleaf sumpweed	
<i>Juncus roemerianus</i>	needle rush	
<i>Juniperus virginiana</i>	red cedar	
<i>Lachnanthes caroliana</i>	Carolina redroot	
<i>Lyonia lucida</i>	Fetterbush	
<i>Magnolia virginiana</i>	Sweetbay	
<i>Myrica cerifera</i>	wax myrtle	
<i>Myrica inodora</i>	odorless bayberry	
<i>Nyssa sylvatica</i> var. <i>biflora</i>	swamp tupelo	
<i>Osmunda cinnamomea</i>	cinnamon fern	CE
<i>Osmunda regalis</i> var. <i>spectabilis</i>	royal fern	CE
<i>Persea palustris</i>	swamp bay	
<i>Photinia pyrifolia</i>	red chokeberry	
<i>Phyllanthus angustifolius</i>	foliage flower	
<i>Pinus elliotii</i>	slash pine	
<i>Pteridium aquilinum</i>	bracken fern	
<i>Quercus nigra</i>	water oak	
<i>Quercus virginiana</i>	live oak	
<i>Rhododendron viscosum</i>	swamp azalea	
<i>Rumex verticillatus</i>	swamp dock	
<i>Sabal minor</i>	dwarf palmetto	
<i>Sabal palmetto</i>	cabbage palm	
<i>Serenoa repens</i>	saw palmetto	
<i>Smilax auriculata</i>	earleaf greenbrier	
<i>Smilax laurifolia</i>	laurel greenbrier	
<i>Smilax walteri</i>	coral greenbrier	
<i>Solidago sempervirens</i>	seaside goldenrod	
<i>Solidago</i> sp.	Goldenrod	
<i>Spartina patens</i>	saltmeadow cordgrass	
<i>Taxodium distichum</i>	bald cypress	
<i>Tillandsia usneoides</i>	Spanish moss	
<i>Toxicodendron radicans</i>	eastern poison ivy	
<i>Vitis rotundifolia</i>	Muscadine	

Maritime Hammock

A small amount of maritime hammock occurs in EPYRWMA on two of the westernmost islands in the marsh along Catfish Basin. There is an emergent canopy of a few slash pine (*Pinus elliottii*) over a dense subcanopy of live oak (*Quercus virginiana*), pignut hickory (*Carya glabra*), cabbage palm (*Sabal palmetto*), southern magnolia (*Magnolia grandiflora*), red cedar (*Juniperus virginiana*), and a few sweetbay (*M. virginiana*). Spanish moss (*Tillandsia usneoides*) can be seen in the tree branches. Shrubs are multi-layered and patchy, and include red buckeye (*Aesculus pavia*), yaupon (*Ilex vomitoria*), cabbage palm, wax myrtle (*Myrica cerifera*) and common persimmon (*Diospyros virginiana*). Herbs include bracken fern (*Pteridium aquilinum*), switchcane (*Arundinaria gigantea*), coralbean (*Erythrina herbacea*), royal fern (*Osmunda regalis* var. *spectabilis*) and Adam's needle (*Yucca filamentosa*). Vines include peppervine (*Ampelopsis arborea*), trumpet creeper (*Campsis radicans*), eastern poison ivy (*Toxicodendron radicans*) and saw greenbrier (*Smilax bona-nox*).

<u>Scientific Name</u>	<u>Common Name</u>	<u>Notes</u>
<i>Aesculus pavia</i>	red buckeye	
<i>Ampelopsis arborea</i>	Peppervine	
<i>Arundinaria gigantea</i>	Switchcane	
<i>Campsis radicans</i>	trumpet creeper	
<i>Carya glabra</i>	pignut hickory	
<i>Diospyros virginiana</i>	common persimmon	
<i>Erythrina herbacea</i>	Coralbean	
<i>Ilex vomitoria</i>	Yaupon	
<i>Juniperus virginiana</i>	red cedar	
<i>Magnolia grandiflora</i>	southern magnolia	
<i>Magnolia virginiana</i>	Sweetbay	
<i>Myrica cerifera</i>	wax myrtle	
<i>Nyssa sylvatica</i> var. <i>biflora</i>	swamp tupelo	
<i>Osmunda regalis</i> var. <i>spectabilis</i>	royal fern	CE
<i>Pinus elliottii</i>	slash pine	
<i>Pteridium aquilinum</i>	bracken fern	
<i>Quercus virginiana</i>	live oak	
<i>Sabal palmetto</i>	cabbage palm	
<i>Smilax bona-nox</i>	saw greenbrier	
<i>Tillandsia usneoides</i>	Spanish moss	
<i>Toxicodendron radicans</i>	eastern poison ivy	
<i>Yucca filamentosa</i>	Adam's needle	

Mesic Flatwoods

Mesic flatwoods are open-canopy forests of widely spaced, uneven-aged longleaf pine (*P. palustris*) in more mesic sites and slash pine (*P. elliotii*) in wetter areas. There is little or no subcanopy, and a dense, low ground cover of diverse herbs and shrubs. In the EPYRWMA mesic flatwoods the canopy is primarily slash pine, although in some areas longleaf pine occurs. These pines are widely spaced in most of the mesic flatwoods on the WMA, with a sparse subcanopy of slash pine and occasional swamp tupelo (*Nyssa sylvatica* var. *biflora*), laurel oak (*Quercus hemisphaerica*) or live oak (*Q. virginiana*). Tall shrubs are patchy and typically sparse, and include yaupon (*Ilex vomitoria*), black titi (*Cliftonia monophylla*), titi (*Cyrilla racemiflora*), large gallberry (*I. coriacea*), sweetbay (*Magnolia virginiana*), wax myrtle (*Myrica cerifera*), and occasionally silverling (*Baccharis glomeruliflora*), and coastal sweetpepperbush (*Clethra alnifolia*). Tree saplings at tall shrub height are common, and include slash pine, longleaf pine, laurel oak, and live oak. In one location in the southeastern portion of the WMA, the scrub-associated species, sand live oak (*Q. geminata*) and myrtle oak (*Q. myrtifolia*) were found in the shrub layer in a few locations.

Typical short shrubs in the mesic flatwoods include woolly huckleberry (*Gaylussacia mosieri*), gallberry (*I. glabra*), hairy laurel (*Kalmia hirsuta*), fetterbush (*Lyonia lucida*), saw palmetto (*Serenoa repens*), highbush blueberry (*Vaccinium corymbosum*), shiny blueberry (*V. myrsinites*), and gopher apple (*Licania michauxii*). Short shrubs also include small individuals of the tall shrub species.

The herbaceous layer of the mesic flatwoods community is dominated by wiregrass (*Aristida stricta* var. *beyrichiana*), but also contains a diversity of other grasses and graminoids, including little bluestem (*Schizachyrium scoparium*), toothachegrass (*Ctenium aromaticum*), switchcane (*Arundinaria gigantea*), low panic grasses (*Dichantheium* spp.), beakrushes (*Rhynchospora* sp.), and indicators of disturbance such as broomsedge bluestem (*Andropogon virginicus*) and chalky bluestem (*A. virginicus* var. *glaucus*). Bracken fern (*Pteridium aquilinum*) and less often, Virginia chain fern (*Woodwardia virginica*), may also be present. A good diversity of fall flowering species can be found, including savannah meadowbeauty (*Rhexia alifanus*), vanillaleaf (*Carphephorus odoratissimus*), hairy chaffhead (*C.s paniculatus*), narrowleaf silkgrass (*Pityopsis graminifolia*), orange milkwort (*Polygala lutea*), tall jointweed (*Polygonella gracilis*), narrowleaf sunflower (*Helianthus angustifolius*), variableleaf sunflower (*Helianthus heterophyllus*), and coastalplain yellow-eyed grass (*Xyris ambigua*). Vines include yellow jessamine (*Gelsemium sempervirens*), cat greenbrier (*Smilax glauca*), laurel greenbrier (*Smilax laurifolia*), and muscadine (*Vitis rotundifolia*).

The majority of the mesic flatwoods in EPYRWMA are in good condition, although fire exclusion has resulted in shrub encroachment. The groundcover is intact wiregrass and palmetto, and will respond well to prescribed fire.

Table 10. Plant species observed in Mesic Flatwoods in Escribano Point WMA.

<u>Scientific Name</u>	<u>Common Name</u>	<u>Notes</u>
<i>Andropogon virginicus</i>	broomsedge bluestem	W
<i>Andropogon virginicus</i> var. <i>glaucus</i>	chalky bluestem	W
<i>Aristida stricta</i> var. <i>beyrichiana</i>	Wiregrass	
<i>Arundinaria gigantea</i>	Switchcane	
<i>Baccharis glomeruliflora</i>	Silverling	
<i>Carphephorus odoratissimus</i>	Vanillaleaf	
<i>Carphephorus paniculatus</i>	hairy chaffhead	
<i>Clethra alnifolia</i>	coastal sweetpepperbush	
<i>Cliftonia monophylla</i>	black titi	
<i>Ctenium aromaticum</i>	Toothachegrass	
<i>Cyrilla racemiflora</i>	Titi	
<i>Dichanthelium</i> sp.		
<i>Gaylussacia mosieri</i>	woolly huckleberry	
<i>Gelsemium sempervirens</i>	yellow Jessamine	
<i>Helianthus angustifolius</i>	narrowleaf sunflower	
<i>Helianthus heterophyllus</i>	variableleaf sunflower	
<i>Ilex coriacea</i>	large gallberry	
<i>Ilex glabra</i>	Gallberry	
<i>Ilex vomitoria</i>	Yaupon	
<i>Kalmia hirsuta</i>	hairy laurel	
<i>Licania michauxii</i>	gopher apple	
<i>Lyonia lucida</i>	Fetterbush	
<i>Magnolia virginiana</i>	Sweetbay	
<i>Myrica cerifera</i>	wax myrtle	
<i>Nyssa sylvatica</i> var. <i>biflora</i>	swamp tupelo	
<i>Persea palustris</i>	swamp bay	
<i>Photinia pyrifolia</i>	red chokeberry	
<i>Pinus elliottii</i>	slash pine	
<i>Pinus palustris</i>	longleaf pine	
<i>Pityopsis graminifolia</i>	narrowleaf silkgrass	
<i>Polygala lutea</i>	orange milkwort	
<i>Polygonella gracilis</i>	tall jointweed	
<i>Pteridium aquilinum</i>	bracken fern	
<i>Quercus geminate</i>	sand live oak	

<u>Scientific Name</u>	<u>Common Name</u>	<u>Notes</u>
<i>Quercus hemisphaerica</i>	laurel oak	
<i>Quercus myrtifolia</i>	myrtle oak	
<i>Quercus virginiana</i>	live oak	
<i>Rhexia alifanus</i>	savannah meadowbeauty	
<i>Rhynchospora</i> sp.	Beakrush	
<i>Schizachyrium scoparium</i>	little bluestem	
<i>Serenoa repens</i>	saw palmetto	
<i>Smilax auriculata</i>	earleaf greenbrier	
<i>Smilax bona-nox</i>	saw greenbrier	
<i>Smilax glauca</i>	cat greenbrier	
<i>Smilax laurifolia</i>	laurel greenbrier	
<i>Solidago odora</i>	sweet goldenrod	
<i>Symphotrichum</i> sp.	Aster	
<i>Vaccinium corymbosum</i>	highbush blueberry	
<i>Vaccinium darrowii</i>	Darrow's blueberry	
<i>Vaccinium myrsinities</i>	shiny blueberry	
<i>Vitis rotundifolia</i>	Muscadine	
<i>Woodwardia virginica</i>	Virginia chain fern	
<i>Xyris ambigua</i>	coastalplain yellow-eyed grass	
<i>Xyris caroliniana</i>	Carolina yellow-eyed grass	

Ruderal

One ruderal area was mapped in EPYRWMA. The area is in the middle section, and appears to be a place adjacent to a small dome swamp and wet prairie that was scraped down (presumably with heavy machinery) sometime in the distant past. This location looks like a natural depression marsh, but with straight, bermed-up sides to the west. It grades gradually into wet prairie to the east, and the line where historical disturbance stops and wet prairie starts is subtle. At this ruderal depression (termed an artificial impoundment in the ruderal type polygon attribute table), a few slash pine (*Pinus elliotii*) rim the edges. The basin contains depression marsh-type vegetation composed of a sparse shrub layer of coastalplain St. John's wort (*Hypericum brachyphyllum*) over a sparse, grassy marsh of longleaf threeawn (*Aristida palustris*), low panic grasses (*Dichanthelium* sp.), panic grasses (*Panicum* spp.), beakrushes (*Rhynchospora* sp.), eastern purple bladderwort (*Utricularia purpurea*), and yellow-eyed grass (*Xyris* sp.).

<u>Scientific Name</u>	<u>Common Name</u>	<u>Notes</u>
<i>Aristida palustris</i>	longleaf threeawn	
<i>Cliftonia monophylla</i>	black titi	
<i>Dichantheium</i> spp.	low panic grasses	
<i>Hypericum brachyphyllum</i>	Coastalplain St. John's wort	
<i>Panicum</i> sp.	panic grass	
<i>Pinus elliottii</i>	slash pine	
<i>Rhynchospora</i> sp.	Beakrushes	
<i>Utricularia purpurea</i>	eastern purple bladderwort	
<i>Xyris</i> sp.	yellow-eyed grass	

Sandhill

Sandhills occur on xeric, sandy soils on the EPYRWMA, and are characterized by a canopy dominated by longleaf pine (*Pinus palustris*), an understory of turkey oak (*Quercus laevis*), and a groundcover of a mixture of low shrubs and grasses. At the WMA, turkey oaks dominate the subcanopy, which also includes longleaf pine (*Pinus palustris*), bluejack oak (*Q. incana*), and live oak (*Q. virginiana*). The tall shrub layer includes turkey oak, sand live oak (*Q. geminata*), bluejack oak, and live oak. The short shrub layer includes dwarf huckleberry (*Gaylussacia dumosa*), yaupon (*Ilex vomitoria*), gopher apple (*Licania michauxii*), turkey oak, live oak, saw palmetto (*Serenoa repens*), Darrow's blueberry (*Vaccinium darrowii*), and St. Andrew's cross (*Hypericum hypericoides*). Species in the herbaceous layer include pinewoods bluestem (*Andropogon arctatus*), wiregrass (*Aristida stricta* var. *beyrichiana*), dogtongue wild buckwheat (*Eriogonum tomentosum*) October flower (*Polygonella polygama*), bracken fern (*Pteridium aquilinum*), little bluestem (*Schizachyrium scoparium*), yellow indiagrass (*Sorghastrum nutans*), and pineywoods dropseed (*S. junceus*). Earleaf greenbrier (*Smilax auriculata*) is the most typical vine in the sandhills at EPYRWMA.

<u>Scientific Name</u>	<u>Common Name</u>	<u>Notes</u>
<i>Andropogon arctatus</i>	pinewoods bluestem	
<i>Aristida stricta</i> var. <i>beyrichiana</i>	wiregrass	
<i>Chrysoma pauciflosculosa</i>	bush goldenrod	
<i>Eriogonum tomentosum</i>	dogtongue wild buckwheat	
<i>Gaylussacia dumosa</i>	dwarf huckleberry	
<i>Hypericum hypericoides</i>	St. Andrew's cross	
<i>Ilex vomitoria</i>	yaupon	
<i>Licania michauxii</i>	gopher apple	

<u>Scientific Name</u>	<u>Common Name</u>	<u>Notes</u>
<i>Pinus elliottii</i>	slash pine	
<i>Pinus palustris</i>	longleaf pine	
<i>Polygonella polygama</i>	october flower	
<i>Pteridium aquilinum</i>	bracken fern	
<i>Quercus geminata</i>	sand live oak	
<i>Quercus incana</i>	bluejack oak	
<i>Quercus laevis</i>	turkey oak	
<i>Quercus virginiana</i>	live oak	
<i>Rhynchospora</i> sp.	beakrushes	
<i>Schizachyrium scoparium</i>	little bluestem	
<i>Serenoa repens</i>	saw palmetto	
<i>Smilax auriculata</i>	earleaf greenbrier	
<i>Sorghastrum nutans</i>	yellow indiagrass	
<i>Sporobolus junceus</i>	pineywoods dropseed	
<i>Vaccinium darrowii</i>	Darrow's blueberry	

Wet Flatwoods

Wet flatwoods are characterized by relatively open-canopy forests of scattered pine trees with either a thick shrubby understory and very sparse ground cover, or a fire maintained, sparse understory and dense ground cover of hydrophytic herbs. Wet flatwoods exist on relatively flat, poorly drained land. In the EPYRWMA wet flatwoods, the canopy and subcanopy is dominated by slash pine (*Pinus elliottii*). Tall shrubs include black titi (*Cliftonia monophylla*), dahoon (*Ilex cassine*), myrtle dahoon (*I. cassine* var. *myrtifolia*), large gallberry (*Ilex coriacea*), sweetbay (*Magnolia virginiana*), wax myrtle (*Myrica cerifera*), swamp tupelo (*Nyssa sylvatica* var. *biflora*), water oak (*Quercus nigra*), and highbush blueberry (*Vaccinium corymbosum*).

Common short shrubs include blue huckleberry (*Gaylussacia frondosa* var. *tomentosa*), woolly huckleberry (*G. mosieri*), coastalplain St. John's wort (*Hypericum brachyphyllum*), gallberry (*I. glabra*), fetterbush (*Lyonia lucida*), wax myrtle. Other, less common shrubs include coastal sweetpepperbush (*Clethra alnifolia*), odorless bayberry (*M. inodora*), swamp bay (*Persea palustris*), saw palmetto (*Serenoa repens*), roundpod St. John's wort (*Hypericum cistifolium*), bedstraw St. John's wort (*H. galioides*), other species of St. John's wort (*Hypericum* spp.), swamp azalea (*Rhododendron viscosum*) and rusty blackhaw (*Viburnum rufidulum*).

Where shrubs are relatively sparse or patchy, the herbaceous layer can be diverse. Graminoids include wiregrass (*Aristida stricta* var. *beyrichiana*), switchcane (*Arundinaria gigantea*), sedge (*Carex* sp.), toothachegrass (*Ctenium aromaticum*), tapered witchgrass (*Dichanthelium acuminatum*), low panic grasses (*Dichanthelium* sp.), panic grasses (*Panicum longifolium*, *Panicum* sp.), Chapman's beaksedge (*Rhynchospora chapmanii*), clustered

beaksedge (*R. glomerata*), and beakrushes (*Rhynchospora* sp.). Forbs include pink sundew (*Drosera capillaris*), flattened pipewort (*Eriocaulon compressum*), tenangle pipewort (*E. decangulare*), coastalplain yellow-eyed grass (*Xyris ambigua*), sphagnum moss (*Sphagnum* sp.), drumheads (*Polygala cruciata*), yellow hatpins (*Syngonanthus flavidulus*), savannah yellow-eyed grass (*X. flabelliformis*), and other yellow-eyed grasses (*Xyris* sp.). Ferns may include Virginia chain fern (*Woodwardia virginica*), bracken fern (*Pteridium aquilinum*), and cinnamon fern (*Osmunda cinnamomea*).

Weedy species are found in areas that have been subjected to past timbering effort where soil disturbance occurred. These species include broomsedge bluestem (*Andropogon virginicus*), chalky bluestem (*A. virginicus* var. *glaucus*), dogfennel (*Eupatorium capillifolium*), Carolina redroot (*Lachnanthes caroliana*), and blackberry (*Rubus* sp.). Vines are also common in areas of disturbance. Most common is laurel greenbrier (*Smilax laurifolia*), but yellow jessamine (*Gelsemium sempervirens*) and muscadine (*Vitis rotundifolia*) may also be present.

Table 13. Plant species observed in wet flatwoods in Escribano Point WMA.		
<u>Scientific Name</u>	<u>Common Name</u>	<u>Notes</u>
<i>Andropogon virginicus</i>	broomsedge bluestem	
<i>Andropogon virginicus</i> var. <i>glaucus</i>	chalky bluestem	
<i>Aristida stricta</i> var. <i>beyrichiana</i>	wiregrass	
<i>Arundinaria gigantea</i>	switchcane	
<i>Carex</i> sp.	sedge	
<i>Clethra alnifolia</i>	coastal sweetpepperbush	
<i>Cliftonia monophylla</i>	black titi	
<i>Ctenium aromaticum</i>	toothachegrass	
<i>Cyrilla racemiflora</i>	titi	
<i>Dichanthelium acuminatum</i>	tapered witchgrass	
<i>Dichanthelium</i> sp.	low panic grasses	
<i>Drosera capillaris</i>	pink sundew	
<i>Eriocaulon compressum</i>	flattened pipewort	
<i>Eriocaulon decangulare</i>	tenangle pipewort	
<i>Eupatorium capillifolium</i>	dogfennel	
<i>Gaylussacia frondosa</i> var. <i>tomentosa</i>	blue huckleberry	
<i>Gaylussacia mosieri</i>	woolly huckleberry	
<i>Gelsemium sempervirens</i>	yellow jessamine	
<i>Hypericum brachyphyllum</i>	coastalplain St. John's wort	
<i>Hypericum cistifolium</i>	roundpod St. John's wort	
<i>Hypericum galioides</i>	bedstraw St. John's wort	

<u>Scientific Name</u>	<u>Common Name</u>	<u>Notes</u>
<i>Hypericum</i> sp.	St. John's wort	
<i>Ilex cassine</i>	dahoon	
<i>Ilex cassine</i> var. <i>myrtifolia</i>	myrtle dahoon	
<i>Ilex coriacea</i>	large gallberry	
<i>Ilex glabra</i>	gallberry	
<i>Lachnanthes carolina</i>	Carolina redroot	
<i>Lyonia lucida</i>	fetterbush	
<i>Magnolia virginiana</i>	sweetbay	
<i>Myrica cerifera</i>	wax myrtle	
<i>Myrica inodora</i>	odorless bayberry	
<i>Nyssa sylvatica</i> var. <i>biflora</i>	swamp tupelo	
<i>Osmunda cinnamomea</i>	cinnamon fern	CE
<i>Panicum longifolium</i>	panic grass	
<i>Panicum</i> sp.	panic grass	
<i>Persea palustris</i>	swamp bay	
<i>Pinus elliotii</i>	slash pine	
<i>Polygala cruciata</i>	drumheads	
<i>Pteridium aquilinum</i>	bracken fern	
<i>Quercus hemisphaerica</i>	laurel oak	
<i>Quercus nigra</i>	water oak	
<i>Rhododendron viscosum</i>	swamp azalea	
<i>Rhynchospora chapmanii</i>	Chapman's beaksedge	
<i>Rhynchospora glomerata</i>	clustered beaksedge	
<i>Rhynchospora</i> sp.	beakrushe	
<i>Rubus</i> sp.	blackberry	
<i>Serenoa repens</i>	saw palmetto	
<i>Smilax laurifolia</i>	laurel greenbrier	
<i>Sphagnum</i> sp.	sphagnum moss	
<i>Syngonanthus flavidulus</i>	yellow hatpins	
<i>Vaccinium corymbosum</i>	highbush blueberry	
<i>Viburnum rufidulum</i>	rusty blackhaw	
<i>Vitis rotundifolia</i>	muscadine	
<i>Woodwardia virginica</i>	Virginia chain fern	
<i>Xyris ambigua</i>	coastalplain yellow-eyed grass	

<u>Scientific Name</u>	<u>Common Name</u>	<u>Notes</u>
<i>Xyris flabelliformis</i>	savannah yellow-eyed grass	
<i>Xyris</i> sp.	Yellow-eyed grass	

Wet Prairie

Wet prairies are seasonally wet grasslands with few or no pine trees and, when burned frequently, few shrubs. There are two areas mapped as wet prairie in the EPYRWMA. The northernmost occurrence is the best example; the southernmost occurrence appears to have been historical baygall and basin swamp, which have been logged and burned, creating vegetation that is borderline wet prairie/ruderal. Management of the latter area may be either to maintain as open and grassy with fire, or to allow regeneration of the original baygall/basin swamp vegetation, if hydrology is still appropriate. A hydrologic review of this area may be warranted.

In the wet prairies documented, a very sparse canopy and subcanopy of slash pine (*Pinus elliottii*) occurs over shrubs that are scattered, but may be patchy and dense in some areas. Overall, shrubs are not so dense as to have shaded out the graminoid groundcover characteristic of wet prairie. Shrubs include black titi (*Cliftonia monophylla*), woolly huckleberry (*Gaylussacia mosieri*), coastal plain St. John's wort (*Hypericum brachyphyllum*), fetterbush (*Lyonia lucida*), sweetbay (*Magnolia virginiana*), and highbush blueberry (*Vaccinium corymbosum*). The herbaceous groundcover is typically dominated by wiregrass (*Aristida stricta* var. *beyrichiana*) or Chapman's beaksedge (*Rhynchospora chapmanii*). The latter species is dominant in the southernmost wet prairie occurrence. Other graminoids include bushy bluestem (*Andropogon glomeratus*), chalky bluestem (*A. virginicus* var. *glaucus*), toothache grass (*Ctenium aromaticum*), longleaf threeawn (*A. palustris*), switchcane (*Arundinaria gigantea*), panic grass (*Dichanthelium* sp.), fascicled beaksedge (*Rhynchospora fascicularis*), other beakrushes (*Rhynchospora* sp.), and nutrush (*Scleria* sp.). Forbs include tenangle pipewort (*Eriocaulon decangulare*), oneflower honeycombhead (*Balduina uniflora*), Florida tickseed (*Coreopsis floridana*), whitetop pitcherplant (*Sarracenia leucophylla*), sphagnum moss (*Sphagnum* sp.), foxtail club-moss (*Lycopodiella alopecuroides*), Virginia chain fern (*Woodwardia virginica*), and yellow-eyed grass (*Xyris* sp.). Laurel greenbrier (*Smilax laurifolia*) is the most common vine.

Table 14. Plant species observed in wet prairie in Escribano Point WMA.

<u>Scientific Name</u>	<u>Common Name</u>	<u>Notes</u>
<i>Andropogon glomeratus</i>	bushy bluestem	
<i>Andropogon virginicus</i> var. <i>glaucus</i>	chalky bluestem	
<i>Aristida palustris</i>	longleaf threeawn	
<i>Aristida stricta</i> var. <i>beyrichiana</i>	wiregrass	
<i>Arundinaria gigantea</i>	switchcane	

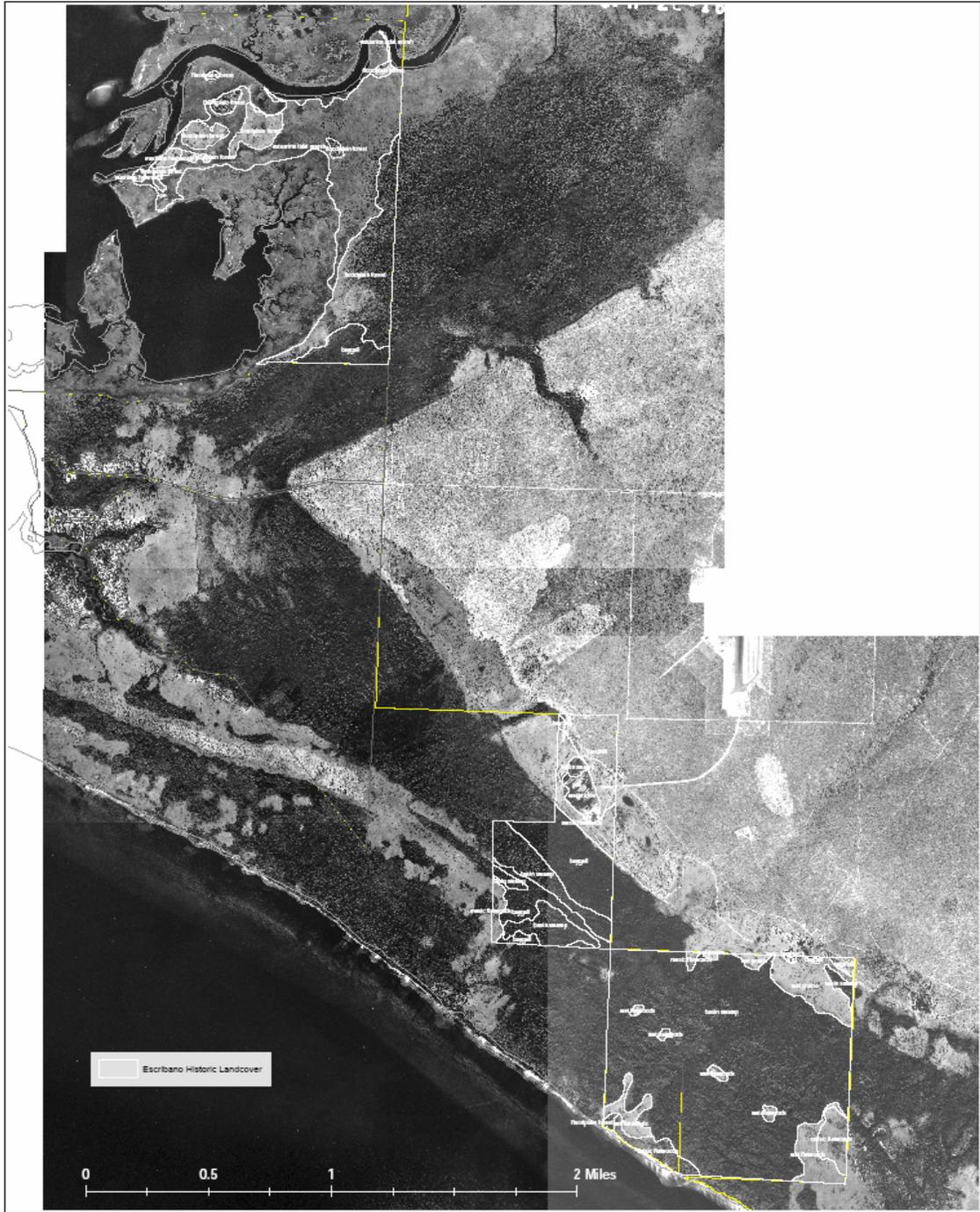
<u>Scientific Name</u>	<u>Common Name</u>	<u>Notes</u>
<i>Balduina uniflora</i>	oneflower honeycombhead	
<i>Cliftonia monophylla</i>	black titi	
<i>Coreopsis floridana</i>	Florida tickseed	
<i>Ctenium aromaticum</i>	toothachegrass	
<i>Dichanthelium</i> sp.	low panic grass	
<i>Eriocaulon decangulare</i>	tenangle pipewort	
<i>Gaylussacia mosieri</i>	woolly huckleberry	
<i>Hypericum brachyphyllum</i>	coastalplain St. John's wort	
<i>Hypericum</i> sp.	St. John's wort	
<i>Lycopodiella alopecuroides</i>	foxtail club-moss	
<i>Lyonia lucida</i>	fetterbush	
<i>Magnolia virginiana</i>	sweetbay	
<i>Pinus elliotii</i>	slash pine	
<i>Rhynchospora chapmanii</i>	Chapman's beaksedge	
<i>Rhynchospora fascicularis</i>	fascicled beaksedge	
<i>Rhynchospora</i> sp.	beaksedge	
<i>Sarracenia leucophylla</i>	whitetop pitcherplant	Endangered-FL
<i>Scleria</i> sp.	nutrush	
<i>Smilax laurifolia</i>	laurel greenbrier	
<i>Sphagnum</i> sp.	sphagnum moss	
<i>Vaccinium corymbosum</i>	highbush blueberry	
<i>Woodwardia virginica</i>	Virginia chain fern	
<i>Xyris</i> sp.	yellow-eyed grass	

Xeric Hammock

There is one small xeric hammock in the EPYRWMA, in the southernmost section. Xeric hammocks develop in long unburned locations within sandhills. They are also called "oak domes" and are typically small patches of live oak (*Quercus virginiana*) or sand live oak (*Q. geminata*). In EPYRWMA, this site may have historically been a homestead or campsite. The canopy is dominated by live oak, with a subcanopy of laurel oak (*Q. hemisphaerica*), water oak (*Q. nigra*), southern magnolia (*Magnolia grandiflora*), and live oak. The shrub layer is patchy and multi-layered, and includes yaupon (*Ilex vomitoria*), sparkleberry (*Vaccinium arboreum*), gallberry (*Ilex glabra*), persimmon (*Diospyros virginiana*), gopher apple (*Licania michauxii*), winged sumac (*Rhus copallinum*) and saw palmetto (*Serenoa repens*). Herbs are sparse and include bush goldenrod (*Chrysoma pauciflosculosa*), slender gayfeather (*Liatris gracilis*) and cockspur pricklypear (*Opuntia pusilla*). The vine, earleaf greenbrier (*Smilax auriculata*) can be found throughout the floor of the hammock, and muscadine (*Vitis rotundifolia*) can be found

climbing into the canopy layer.

Table 15. Plant species observed in xeric hammock in Escribano Point WMA.		
<u>Scientific Name</u>	<u>Common Name</u>	<u>Notes</u>
<i>Chrysoma pauciflosculosa</i>	bush goldenrod	
<i>Diospyros virginiana</i>	common persimmon	
<i>Ilex glabra</i>	gallberry	
<i>Ilex vomitoria</i>	yaupon	
<i>Liatris gracilis</i>	slender gayfeather	
<i>Licania michauxii</i>	gopher apple	
<i>Magnolia grandiflora</i>	southern magnolia	
<i>Opuntia pusilla</i>	cockspur pricklypear	
<i>Quercus geminate</i>	sand live oak	
<i>Quercus hemisphaerica</i>	laurel oak	
<i>Quercus nigra</i>	water oak	
<i>Quercus virginiana</i>	live oak	
<i>Rhus copallinum</i>	winged sumac	
<i>Serenoa repens</i>	saw palmetto	
<i>Smilax auriculata</i>	earleaf greenbrier	
<i>Vaccinium arboretum</i>	sparkleberry	
<i>Vitis rotundifolia</i>	muscadine	



Draft
 FNAI Historic Landcover
 (Historic Imagery from 1949)
 Escribano Point WEA
 1:24,000



Figure 6: Historic Landcover (1949)
 (Produced by Florida Natural Areas Inventory)

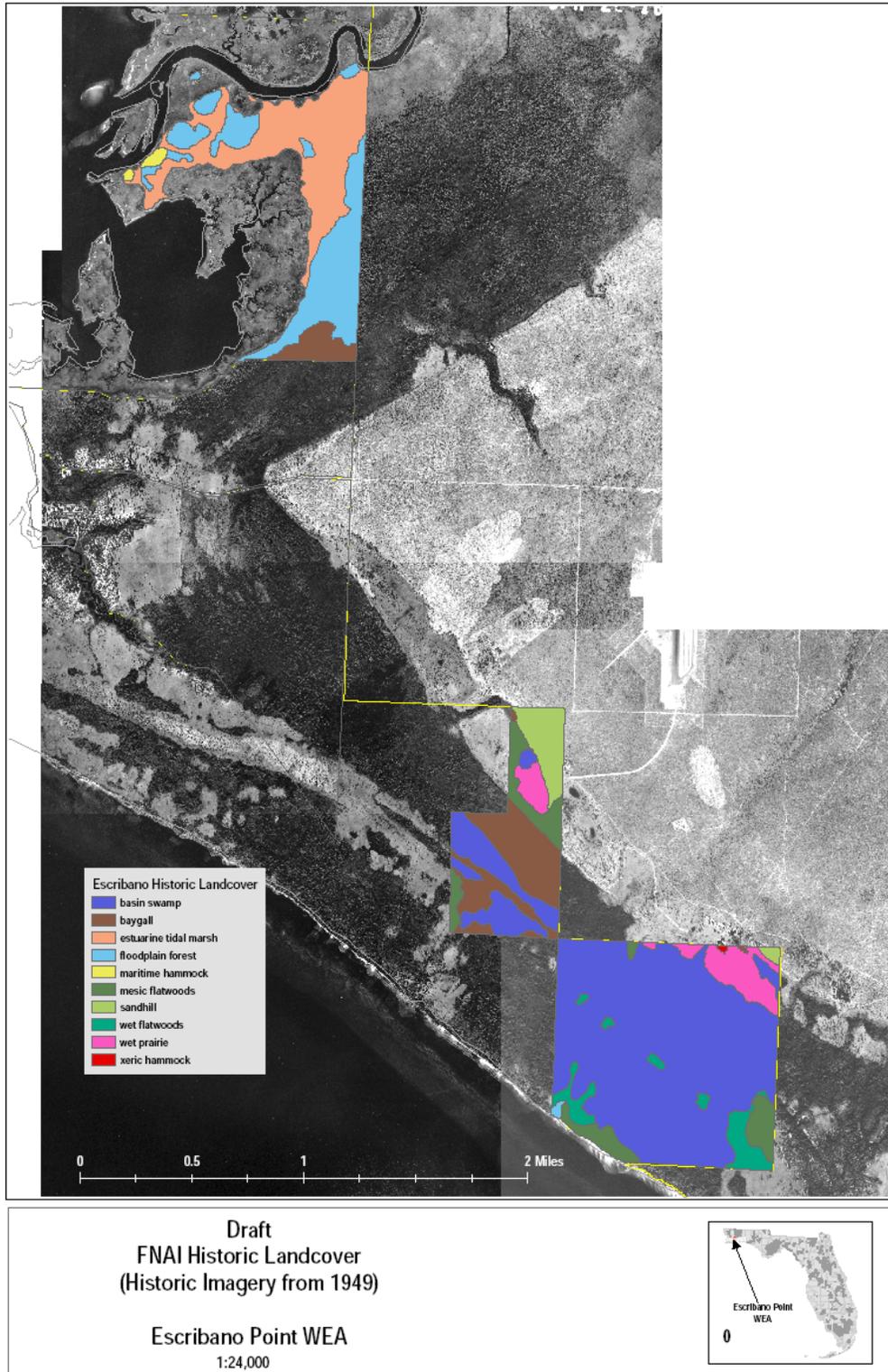


Figure 7: Historic Natural Communities (1949)
(Produced by Florida Natural Areas Inventory)



Draft
 FNAI Natural Community Mapping Product

Escribano Point WEA

1:24,000



Figure 8: Recent Landcover (2004)
 (Produced by Florida Natural Areas Inventory)

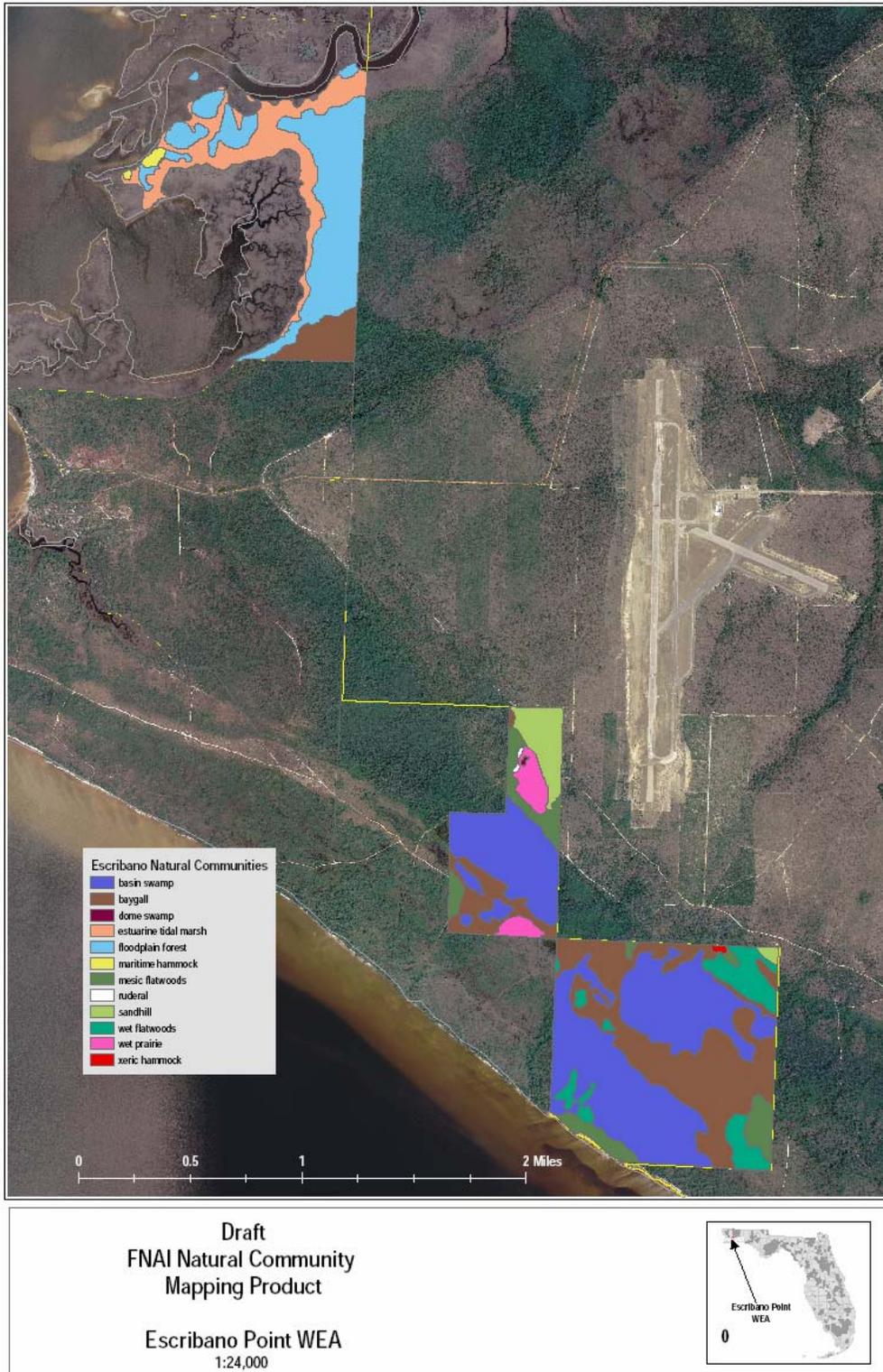


Figure 9: Recent Natural Communities (2004)
(Produced by Florida Natural Areas Inventory)

C. Fish and Wildlife

1. Resident Fauna

a. Lists of Vertebrate Species

Tables 16 through 20 summarize information available to FWC on species of vertebrates (fishes, amphibians, reptiles, birds and mammals) occurring or potentially occurring on the EPYRWMA and adjacent areas. Detailed surveys for the different species occurring on EPYRWMA have not yet been conducted for many groups of animals and plants.

Table 16. Fishes recorded in Blackwater (BLA) and Yellow (YEL) river systems, including Blackwater Bay and East Bay (11). Freshwater portion of EPYRWMA is Yellow River drainage. Many species occurring in Blackwater and Yellow rivers also occur in the adjacent bays. Marine species recorded in Blackwater or Yellow river systems likely occur in East Bay. Taxonomy and common names are according to the American Fisheries Society (12). Categories: anadromous (A), catadromous (C), fresh water (F) and marine (M).

Cate gory	CLASS / ORDER Family / Common name	Scientific name	BLA	YEL	East Bay
	CLASS CEPHALASPIDOMORPHI- LAMPREYS				
	ORDER PETROMYZONTIFORMES				
	Family Petromyzontidae-lampreys				
F	Southern brook lamprey, CLASS CHONDRICHTHYES- CARTILAGINOUS FISHES	<i>Ichthyomyzon gagei</i>	X	X	
	ORDER CARCHARHINIFORMES				
	Family Carcharhinidae-requiem sharks				
M	Bull shark	<i>Carcharhinus leucas</i>	X	X	?
	ORDER MYLIOBATIFORMES				
	Family Dasyatidae-whiptail stingrays				
M	Stingray	<i>Dasyatis</i> sp.		X	
	CLASS ACTINOPTERYGII-THE RAY- FINNED FISHES				
	ORDER ACIPENSERIFORMES				
	Family Acipenseridae-sturgeons				
A	Gulf sturgeon	<i>Acipenser oxyrinchus desotoi</i>	X	X	?
	ORDER LEPISOSTEIFORMES				
	Family Lepisosteidae-gars				
F	Alligator gar	<i>Atractosteus spatula</i>		X	
F	Spotted gar	<i>Lepisosteus oculatus</i>	X	X	
F	Longnose gar	<i>Lepisosteus osseus</i>	X	X	
	ORDER AMIFORMES				
	Family Amiidae-bowfin				

F	Bowfin	<i>Amia calva</i>	X	X	
	ORDER ELOPIFORMES				
	Family Elopidae-tenpounders				
M	Ladyfish	<i>Elops saurus</i>		X	?
	Family Megalopidae-tarpons				
M	Tarpon	<i>Megalops atlanticus</i>		X	?
	ORDER ANGUILLIFORMES				
	Family Anguillidae-freshwater eels				
C	American eel	<i>Anguilla rostrata</i>	X	X	X
	Family Ophichthidae-snake eels				
M	speckled worm eel	<i>Myrophis punctatus</i>	X	X	?
	ORDER CLUPEIFORMES				
	Family Engraulidae-anchovies				
M	Bay anchovy	<i>Anchoa mitchilli</i>	X	X	?
	Family Clupeidae-herrings				
A	Alabama shad	<i>Alosa alabamae</i>		X	?
F	Skipjack herring	<i>Alosa chrysochloris</i>	X	X	
M	Gulf menhaden	<i>Brevoortia patronus</i>	X	X	?
F	Gizzard shad	<i>Dorosoma cepedianum</i>	X	X	
F	Threadfin shad	<i>Dorosoma petenense</i>	X	X	
	ORDER CYPRINIFORMES				
	Family Cyprinidae-minnows and carps				
E	Grass carp	<i>Ctenopharyngodon idella</i>		X	
F	Blacktail shiner	<i>Cyprinella venusta</i>	X	X	
F	Silverjaw minnow	<i>Notropis buccatus</i>		X	
F	Longnose shiner	<i>Notropis longirostris</i>	X	X	
F	undescribed chub	<i>Hybopsis (new species)</i>	X	X	
F	Blacktip shiner	<i>Lythrurus atrapiculus</i>		X	
		<i>Macrhybopsis (new species)</i>		X	
F	Florida chub	<i>Notemigonus crysoleucas</i>	X	X	
F	Golden shiner	<i>Notropis chalybaeus</i>	X	X	
F	Ironcolor shiner	<i>Notropis harperi</i>		X	
F	Redeye chub	<i>Notropis maculatus</i>	X	X	
F	Taillight shiner	<i>Notropis melanostomus</i>	X	X	
F	Blackmouth shiner	<i>Notropis petersoni</i>	X	X	
F	Coastal shiner	<i>Notropis texanus</i>	X	X	
F	Weed shiner	<i>Opsopoeodus emiliae</i>	X	X	
F	Pugnose minnow	<i>Pteronotropis hypselopterus</i>	X	X	
F	Sailfin shiner	<i>Pteronotropis signipinnis</i>	X	X	
F	Flagfin shiner	<i>Pteronotropis welaka</i>	X	X	
F	Bluenose shiner	<i>Semotilus thoreauianus</i>	X	X	
F	Dixie chub				
	Family Catostomidae-suckers				
F	Quillback	<i>Carpoides cyprinus</i>		X	

F	Highfin carpsucker	<i>Carpionodes velifer</i>		X	
F	Lake chubsucker	<i>Erimyzon sucetta</i>	X	X	
F	Sharpfin chubsucker	<i>Erimyzon tenuis</i>	X	X	
F	Spotted sucker	<i>Minytrema melanops</i>	X	X	
F	Blacktail redhorse	<i>Moxostoma poecilurum</i>	X	X	
	ORDER SILURIFORMES				
	Family Ictaluridae-North American freshwater catfishes				
F	White catfish	<i>Ameiurus catus</i>	X	X	
F	Yellow bullhead	<i>Ameiurus natalis</i>	X	X	
F	Brown bullhead	<i>Ameiurus nebulosus</i>	X	X	
F	Spotted bullhead	<i>Ameiurus serracanthus</i>		X	
F	Blue catfish	<i>Ictalurus furcatus</i>		X	
F	Channel catfish	<i>Ictalurus punctatus</i>	X	X	
F	Black madtom	<i>Noturus funebris</i>	X	X	
F	Tadpole madtom	<i>Noturus gyrinus</i>	X	X	
F	Speckled madtom	<i>Noturus leptacanthus</i>	X	X	
F	Flathead catfish	<i>Pylodictis olivaris</i>	X	X	
	Family Ariidae-sea catfishes				
M	Hardhead catfish	<i>Ariopsis felis</i>	X	X	?
M	Gafftopsail catfish	<i>Bagre marinus</i>	X	X	?
	ORDER ESOCIFORMES				
	Family Esocidae-pikes				
F	Redfin pickerel	<i>Esox americanus</i>	X	X	
F	Chain pickerel	<i>Esox niger</i>	X	X	
	ORDER PERCOPSIFORMES				
	Family Aphredoderidae-pirate perch				
F	Pirate perch	<i>Aphredoderus sayanus</i>	X	X	
	ORDER MUGILIFORMES				
	Family Mugilidae-mulletts				
M	Striped mullet	<i>Mugil cephalus</i>	X	X	X
	ORDER ATHERINIFORMES				
	Family Atherinopsidae-New World silversides				
F	Brook silverside	<i>Labidesthes sicculus</i>	X	X	
M	Rough silverside	<i>Membras martinica</i>			X
M	Inland silverside	<i>Menidia beryllina</i>	X	X	X
	ORDER BELONIFORMES				
	Family Belonidae-needlefishes				
M	Atlantic needlefish	<i>Strongylura marina</i>	X	X	?
	ORDER CYPRINODONTIFORMES				
	Family Fundulidae-topminnows				
	Family Cyprinodontidae-killifishes				
M	Diamond killifish	<i>Adinia xenica</i>			X
F	Banded topminnow	<i>Fundulus cingulatus</i>	X	X	

F	Golden topminnow	<i>Fundulus chrysotus</i>	X	X	
M	Marsh killifish	<i>Fundulus confluentus</i>	X	X	?
F	Russetfin topminnow	<i>Fundulus escambiae</i>	X	X	
M	Saltmarsh topminnow	<i>Fundulus jenkinsi</i>	X		X
F	Blackspotted topminnow	<i>Fundulus olivaceus</i>	X	X	
M	Longnose killifish	<i>Fundulus similis</i>	X	X	?
F	Pygmy killifish	<i>Leptolucania ommata</i>	X	X	
M	Rainwater killifish	<i>Lucania parva</i>	X	X	?
	Family Poeciliidae-livebearers				
F	Eastern mosquitofish	<i>Gambusia holbrooki</i>	X	X	X
F	Least killifish	<i>Heterandria formosa</i>		X	
M	Sailfin molly	<i>Poecilia latipinna</i>	X	X	X
	Family Cyprinodontidae-pupfishes				
M	Sheepshead minnow	<i>Cyprinodon variegatus</i>		X	X
	ORDER GASTEROSTEIFORMES				
	Family Syngnathidae-pipefishes				
M	Gulf pipefish	<i>Syngnathus scovelli</i>	X	X	?
	ORDER SCORPAENIFORMES				
	Family Triglidae-searobins				
M	Bighead searobin	<i>Prionotus tribulus</i>	X	X	?
	ORDER PERCIFORMES				
	Family Moronidae-temperate basses				
F	White bass	<i>Morone chrysops</i>	X		
A	Striped bass	<i>Morone saxatilis</i>	X	X	
	Family Centrarchidae-sunfishes				
F	Shadow bass	<i>Ambloplites ariommus</i>	X	X	
F	Flier	<i>Centrarchus macropterus</i>	X	X	
F	Bluespotted sunfish	<i>Enneacanthus gloriosus</i>	X	X	
F	Redbreast sunfish	<i>Lepomis auritus</i>	X	X	
F	Green sunfish	<i>Lepomis cyanellus</i>	X	X	
F	Warmouth	<i>Lepomis gulosus</i>	X	X	
F	Bluegill	<i>Lepomis macrochirus</i>	X	X	X
F	Dollar sunfish	<i>Lepomis marginatus</i>	X	X	
F	Longear sunfish	<i>Lepomis megalotis</i>	X	X	
F	Redear sunfish	<i>Lepomis microlophus</i>	X	X	
F	Spotted sunfish	<i>Lepomis punctatus</i>	X	X	
F	Spotted bass	<i>Micropterus punctulatus</i>	X	X	
F	Largemouth bass	<i>Micropterus salmoides</i>	X	X	
F	Black crappie	<i>Pomoxis nigromaculatus</i>	X	X	
	Family Percidae-perches				
F	Florida sand darter	<i>Ammocrypta bifascia</i>	X	X	
F	Coastal darter	<i>Etheostoma colorosum</i>	X	X	
F	Choctawhatchee darter	<i>Etheostoma davisoni</i>	X	X	
F	Brown darter	<i>Etheostoma edwini</i>	X	X	
F	Swamp darter	<i>Etheostoma fusiforme</i>	X	X	

F	Goldstripe darter	<i>Etheostoma parvipinne</i>		X		
F	Speckled darter	<i>Etheostoma stigmaeum</i>	X			
F	Gulf darter	<i>Etheostoma swaini</i>	X	X		
F	Blackbanded darter	<i>Percina nigrofasciata</i>	X	X		
	Family Carangidae-jacks					
M	Crevalle jack	<i>Caranx hippos</i>	X	X	?	
M	Leatherjacket	<i>Oligoplites saurus</i>	X	X	X	
	Family Gerreidae-mojarras					
M	Spotfin mojarra	<i>Eucinostomus argenteus</i>	X	X	?	
	Family Sparidae-porgies					
		<i>Archosargus</i>				
M	Sheepshead	<i>probratocephalus</i>	X	X	?	
M	Pinfish	<i>Lagodon rhomboides</i>	X	X	?	
	Family Polynemidae-threadfins					
M	Atlantic threadfin	<i>Polydactylus octonemus</i>	X		?	
	Family Sciaenidae-drums and croakers					
M	Silver perch	<i>Bairdiella chrysoura</i>	X	X	?	
M	Sand seatrout	<i>Cynoscion arenarius</i>	X	X	?	
M	Spotted seatrout	<i>Cynoscion nebulosus</i>	X	X	?	
M	Spot	<i>Leiostomus xanthurus</i>	X	X	?	
M	Atlantic croaker	<i>Micropogonias undulatus</i>	X	X	?	
M	Black drum	<i>Pogonias cromis</i>	X	X	?	
M	Red drum	<i>Sciaenops ocellatus</i>	X	X	?	
	Family Elasmobranchidae-pygmy sunfishes					
F	Everglades pygmy sunfish	<i>Elassoma evergladei</i>	X	X		
F	Banded pygmy sunfish	<i>Elassoma zonatum</i>	X	X		
	Family Eleotridae-sleepers					
M	Largescaled spinycheek sleeper	<i>Eleotris amblyopsis</i>	X		?	
	Family Gobiidae-gobies					
M	Darter goby	<i>Ctenogobius boleosoma</i>	X	X	?	
M	Naked goby	<i>Gobiosoma bosc</i>	X	X	?	
M	Clown goby	<i>Microgobius gulosus</i>	X	X	?	
M	Freshwater goby	<i>Ctenogobius shufeldti</i>			X	
	Family Stromateidae-butterfishes					
M	Harvestfish	<i>Peprilus paru</i>	X	X	?	
	ORDER PLEURONECTIFORMES					
	Family Bothidae-lefteye flounders					
M	Southern flounder	<i>Paralichthys lethostigma</i>	X	X	X	
	Family Achiridae-American soles					
M	Hogchoker	<i>Trinectes maculatus</i>	X	X	?	
			Total:	107	119	47

Table 17. List of amphibians observed or expected to occur on the Escribano Point parcels of Yellow River WMA (25). Taxonomy and common names are according to the Center for North American Herpetology (31, 32).

ORDER

Family/Common name	Scientific name
ORDER ANURA-FROGS	
Family Bufonidae-true toads	
Oak toad	<i>Bufo quercius</i>
Southern toad	<i>Bufo terrestris</i>
Fowler's toad	<i>Bufo woodhousii fowleri</i>
Family Hylidae-treefrogs	
Southern cricket frog	<i>Acris gryllus gryllus</i>
Pine barrens treefrog	<i>Hyla andersonii</i>
Bird-voiced treefrog	<i>Hyla avivoca</i>
Gray treefrog	<i>Hyla chrysoscelis</i>
Green treefrog	<i>Hyla cinerea</i>
Spring peeper	<i>Hyla crucifer</i>
Pinewoods treefrog	<i>Hyla femoralis</i>
Barking treefrog	<i>Hyla gratiosa</i>
Squirrel treefrog	<i>Hyla squirella</i>
Southern chorus frog	<i>Pseudacris nigrita nigrita</i>
Ornate chorus frog	<i>Pseudacris ornate</i>
Family Microhylidae-microhylid frogs and toads	
Eastern narrow-mouthed toad	<i>Gastrophryne carolinensis carolinensis</i>
Family Ranidae-true frogs	
Gopher frog	<i>Rana capito</i>
Bullfrog	<i>Rana catesbeiana</i>
Pig frog	<i>Rana grylio</i>
Florida bog frog	<i>Rana okaloosae</i>
Southern leopard frog	<i>Rana utricularia</i>

ORDER CAUDATA-SALAMANDERS

Family Ambystomidae-mole salamanders

Flatwoods salamander	<i>Ambystoma cingulatum</i>
Eastern tiger salamander	<i>Ambystoma tigrinum tigrinum</i>

Family Amphiumidae-amphiumas

Two-toed amphiuma	<i>Amphiuma means</i>
One-toed amphiuma	<i>Amphiuma pholeter</i>

Family Plethodontidae-lungless salamanders

Spotted dusky salamander	<i>Desmognathus fuscus conanti</i>
Dwarf salamander	<i>Eurycea quadridigitata</i>
Southern two-lined salamander	<i>Eurycea cirrigera</i>
Three-lined salamander	<i>Eurycea longicauda guttolineata</i>
Slimy salamander	<i>Plethodon grobmahi</i>

Southern red salamander	<i>Pseudotriton ruber vioscai</i>
Family Proteidae-mudpuppies and waterdogs	
Alabama waterdog	<i>Necturus alabamensis</i>
Family Salamandridae-newts	
Central newt	<i>Notophthalmus viridescens louisianensis</i>
Family Sirenidae-sirens	
Eastern lesser siren	<i>Siren intermedia intermedia</i>

Table 18. List of reptiles observed or expected to occur on the Escribano Point parcels of Yellow River WMA (25). Taxonomy and common names are according to the Integrated Taxonomic Information System (IT IS: 36), Center for North American Herpetology (31, 32) and the Florida Museum of Natural History (33).

ORDER	(I) = introduced
Family/Common name	Scientific name
ORDER TESTUDINES-TERRAPINS, TORTOISES AND TURTLES	
Family Cheloniidae-sea turtles	
Green turtle	<i>Chelonia mydas</i>
Family Cheydridae-snapping turtles	
Common snapping turtle	<i>Chelydra serpentine serpentina</i>
Alligator snapping turtle	<i>Macro clemys temminckii</i>
Family Emydidae-box and water turtles	
Chicken turtle	<i>Deirochelys reticularia</i>
Escambia map turtle	<i>Graptemys ernsti</i>
Mississippi diamondback terrapin	<i>Malaclemys terrapin pileata</i>
Gulf coast box turtle	<i>Terrapene carolina major</i>
Yellowbelly slider	<i>Trachemys scripta scripta</i>
Family Kinosternidae-mud and musk turtles	
Musk turtle	<i>Sternotherus minor</i>
Eastern mud turtle	<i>Kinosternon subrubrum</i>
Family Testudinae-tortises	
Gopher tortoise	<i>Gopherus polyphemus</i>
Family Trionychidae-softshells	
Florida softshell turtle	<i>Apalone ferox</i>
Gulf coast smooth softshell	<i>Apalone mutica calvata</i>
ORDER SQUAMATA- AMPHISBAENIANS, LIZARDS AND SNAKES	
<u>Lizards</u>	
Family Anguidae-glass lizards and alligator lizards	
Eastern slender glass Lizard	<i>Ophisaurus attenuatus longicaudus</i>
Mimic glass lizard	<i>Ophisaurus mimicus</i>
Family Polychrotidae-anoles	
Green anole	<i>Anolis carolinensis</i>
Family Scincidae-skinks	

Southern coal skink	<i>Eumeces anthracinus pluvialis</i>
Southerastern five-lined skink	<i>Eumeces egregious</i>
Five-lined skink	<i>Eumeces faciatus</i>
Broadhead skink	<i>Eumeces laticeps</i>
Ground skink	<i>Scincella lateralis</i>
Family Phrynosomatidae-spiny lizards	
Eastern fence lizard	<i>Sceloporus undulatus</i>
Family Teiidae-whiptails and racerunners	
Six-lined racerunner	<i>Cnemidophorus sexlineatus sexlineatus</i>
<u>Snakes</u>	
Family Colubridae-harmless egg-laying snakes	
Scarlet snake	<i>Cemephora coccinea</i>
Southern black racer	<i>Coluber constrictor priapus</i>
Eastern indigo snake	<i>Drymarchon couperi</i>
Corn snake	<i>Elaphe guttata</i>
Rat snake	<i>Elaphe spilioides</i>
Common kingsnake	<i>Lampropeltis getula</i>
Eastern coachwhip	<i>Masticophis flagellum flagellum</i>
Rough green snake	<i>Opheodrys aestivus</i>
Florida pine snake	<i>Pituophis melanoleucus mugitus</i>
Family Crotalidae-pitvipers	
Cottonmouth	<i>Agkistrodon piscivorus</i>
Diamondback rattlesnake	<i>Crotalus adamanteus</i>
Dusky pygmy rattlesnake	<i>Sistrurus miliarius barbouri</i>
Family Dipsadidae-slender rear-fanged snakes	
Ringneck snake	<i>Diadohis punctatus punctatus</i>
Family Elapidae-coral snakes, cobras and kraits	
Eastern coral snake	<i>Micrurus fulvius</i>
Family Naticidae-harmless live-bearing snakes	
Banded water snake	<i>Nerodia fasciata fasciata</i>
Brown water snake	<i>Nerodia taxispilota</i>
Crayfish snake	<i>Regina rigida</i>
Eastern garter snake	<i>Thamnophis sirtalis sirtalis</i>
Rough earth snake	<i>Virginia striatula</i>
Family Xenodontidae-robust rear-fanged snakes	
Mud snake	<i>Farancia abacura</i>
Eastern hognose snake	<i>Heterodon platirhinos</i>
Southern hognose snake	<i>Heterodon simus</i>
ORDER CROCODILIA-ALLIGATORS, CAIMANS, CROCODILES AND GAVIALS	
Family Alligatoridae-alligators and caimans	
American alligator	<i>Alligator mississippiensis</i>

Table 19. List of birds observed or expected to occur on Escribano Point parcels of Yellow River WMA (25). Taxonomy and common names are according to the American Ornithologists' Union (34) and Peterson and Peterson (26).

ORDER (A) = accidental/casual in AOU area; (I) = introduced; (N) = nonbreeding visitor; * = phylogenetic placement probably needs additional data. Common names for families according to Peterson and Peterson (26).

Family/Common Name Scientific Name

ANSERIFORMES

Anatidae-ducks, geese, swans

Wood Duck	<i>Aix sponsa</i>
Green-winged Teal	<i>Anas crecca</i>
Ring-necked Duck	<i>Aythya collaris</i>
Greater Scaup	<i>Aythya marila</i>
Lesser Scaup	<i>Aythya affinis</i>
Bufflehead	<i>Bucephala albeola</i>
Hooded Merganser	<i>Lophodytes cucullatus</i>

GALLIFORMES

Phasianidae-partidges, grouse, turkeys, Old World quail

Wild Turkey	<i>Meleagris gallopavo</i>
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Odontophoridae-New World quail

Northern Bobwhite	<i>Colinus virginianus</i>
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PODICIPEDIFORMES

Family Poicipedidae-grebes

Pied-billed Grebe	<i>Podilymbus podiceps</i>
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PELECANIFORMES

Family Phalacrocoracidae-comorants

Double-crested Cormorant	<i>Phalacrocorax auritus</i>
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Anhingidae-anhingas

Anhinga	<i>Anhinga anhinga</i>
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CICONIIFORMES

Family Ardeidae-herons, egrets, bitterns

Great Blue Heron	<i>Ardea Herodias</i>
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Little Blue Heron	<i>Egretta caerulea</i>
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Cattle Egret	<i>Bubulcus ibis</i>
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Family Cathartidae-New World vultures

Black Vulture	<i>Coragyps atratus</i>
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Turkey Vulture	<i>Cathartes aura</i>
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FALCONIFORMES

Family Accipitridae-hawks, eagles, kites

Osprey	<i>Pandion haliaetus</i>
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Swallow-tailed Kite	<i>Elanoides forficatus</i>
White-tailed Kite	<i>Elanus leucurus</i>
Mississippi Kite	<i>Ictinia mississippiensis</i>
Bald Eagle	<i>Haliaeetus leucocephalus</i>
Northern Harrier	<i>Circus cyaneus</i>
Sharp-shinned Hawk	<i>Accipiter striatus</i>
Cooper's Hawk	<i>Accipiter cooperii</i>
Red-shouldered Hawk	<i>Buteo lineatus</i>
Red-tailed Hawk	<i>Buteo jamaicensis</i>

Family Falconidae-falcons, caracaras

American Kestrel.	<i>Falco sparverius</i>
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CHARADRIIFORMES

Family Scolopacidae-sandpipers

American Woodcock	<i>Scolopax minor</i>
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Family Laridae-skuas, gulls, terns, skimmers

Laughing Gull	<i>Larus atricilla</i>
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COLUMBIFORMES

Family Columbiidae-pigeons, doves

Rock Pigeon.	<i>Columba livia</i> (I)
Mourning Dove	<i>Zenaida macroura</i>

CUCULIFORMES

Family Cuculidae-cuckoos

Black-billed Cuckoo	<i>Coccyzus erythrophthalmus</i>
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>

STRIGIFORMES

Family Strigidae-typical owls

Eastern Screech-Owl	<i>Megascops asio</i>
Great Horned Owl.	<i>Bubo virginianus</i>
Barred Owl	<i>Strix varia</i>

CAPRIMULGIFORMES

Family Caprimulgidae-nighthawks, nightjars

Common Nighthawk	<i>Chordeiles minor</i>
Chuck-will's-widow	<i>Caprimulgus carolinensis</i>
Whip-poor-will	<i>Caprimulgus vociferus</i>

APODIFORMES

Family Apodidae-swifts

Chimney Swift	<i>Chaetura pelagica</i>
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Family Trochilidae-hummingbirds

Ruby-throated Hummingbird	<i>Archilochus colubris</i>
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CORACIIFORMES

Family Alcedinidae-kingfishers

Belted Kingfisher	<i>Ceryle alcyon</i>
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PICIFORMES

Family Picidae-woodpeckers

Red-headed Woodpecker	<i>Melanerpes erythrocephalus</i>
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Red-bellied Woodpecker	<i>Melanerpes carolinus</i>
Yellow-bellied Sapsucker	<i>Sphyrapicus varius</i>
Downy Woodpecker	<i>Picoides pubescens</i>
Hairy Woodpecker	<i>Picoides villosus</i>
Red-cockaded Woodpecker	<i>Picoides borealis</i>
Northern Flicker	<i>Colaptes auratus</i>
Pileated Woodpecker	<i>Dryocopus pileatus</i>

PASSERIFORMES

Family Tyrannidae-tyrant flycatchers

Eastern Wood-Pewee	<i>Contopus virens</i>
Acadian Flycatcher	<i>Empidonax virescens</i>
Great Crested Flycatcher	<i>Myiarchus crinitus</i>
Eastern Kingbird	<i>Tyrannus tyrannus</i>

Family Laniidae-shrikes

Loggerhead Shrike	<i>Lanius ludovicianus</i>
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Family Vireonidae-vireos

White-eyed Vireo	<i>Vireo griseus</i>
Red-eyed Vireo	<i>Vireo olivaceus</i>

Family Corvidae-crows, jays, magpies

Blue Jay	<i>Cyanocitta cristata</i>
American Crow	<i>Corvus brachyrhynchos</i>
Fish Crow	<i>Corvus ossifragus</i>

Family Hirundinidae-swallows

Purple Martin	<i>Progne subis</i>
Northern Rough-winged Swallow	<i>Stelgidopteryx serripennis</i>
Bank Swallow	<i>Riparia riparia</i>
Barn Swallow	<i>Hirundo rustica</i>

Family Paridae-chickadees, tits

Carolina Chickadee	<i>Poecile carolinensis</i>
Tufted Titmouse	<i>Baeolophus bicolor</i>

Family Sittidae-nuthatches

Red-breasted Nuthatch	<i>Sitta canadensis</i>
Brown-headed Nuthatch	<i>Sitta pusilla</i>

Family Certhiidae-creepers

Brown Creeper	<i>Certhia americana</i>
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Family Troglodytidae-wrens

Carolina Wren	<i>Thryothorus ludovicianus</i>
Winter Wren	<i>Troglodytes troglodytes</i>

Family Regulidae-kinglets

Golden-crowned Kinglet	<i>Regulus satrapa</i>
Ruby-crowned Kinglet	<i>Regulus calendula</i>

Family Sylviidae-Old World warblers

Blue-gray Gnatcatcher	<i>Poliophtila caerulea</i>
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Family Turdidae-thrushes

Eastern Bluebird	<i>Sialia sialis</i>
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Wood Thrush	<i>Hylocichla mustelina</i>
American Robin	<i>Turdus migratorius</i>
Family Mimidae-mockingbirds, thrushes	
Gray Catbird	<i>Dumetella carolinensis</i>
Northern Mockingbird	<i>Mimus polyglottos</i>
Brown Thrasher	<i>Toxostoma rufum</i>
Family Sturnidae-starlings	
European Starling	<i>Sturnus vulgaris</i> (I)
Family Bombycillidae-waxwings	
Cedar Waxwing	<i>Bombycilla cedrorum</i>
Family Parulidae-New World warblers	
Northern Parula	<i>Parula americana</i>
Yellow-rumped Warbler	<i>Dendroica coronata</i>
Pine Warbler	<i>Dendroica pinus</i>
Black-and-white Warbler	<i>Mniotilta varia</i>
Prothonotary Warbler.	<i>Protonotaria citrea</i>
Swainson's Warbler	<i>Limnothlypis swainsonii</i>
Common Yellowthroat	<i>Geothlypis trichas</i>
Hooded Warbler	<i>Wilsonia citrina</i>
Yellow-breasted Chat	<i>Icteria virens</i>
Family Thraupidae-tanagers	
Summer Tanager	<i>Piranga rubra</i>
Scarlet Tanager	<i>Piranga olivacea</i>
Family Emberizidae-New World sparrows	
Eastern Towhee	<i>Pipilo erythrophthalmus</i>
Bachman's Sparrow	<i>Aimophila aestivalis</i>
Le Conte's Sparrow	<i>Ammodramus leconteii</i>
White-throated Sparrow	<i>Zonotrichia albicollis</i>
Dark-eyed Junco	<i>Junco hyemalis</i>
Family Cardinalidae-cardinals, allies	
Northern Cardinal	<i>Cardinalis cardinalis</i>
Blue Grosbeak	<i>Passerina caerulea</i>
Indigo Bunting	<i>Passerina cyanea</i>
Family Icteridae-blackbirds, orioles, allies	
Red-winged Blackbird	<i>Agelaius phoeniceus</i>
Eastern Meadowlark	<i>Sturnella magna</i>
Rusty Blackbird	<i>Euphagus carolinus</i>
Common Grackle	<i>Quiscalus quiscula</i>
Brown-headed Cowbird	<i>Molothrus ater</i>
Family Fringillidae-finches, allies	
Purple Finch	<i>Carpodacus purpureus</i>
American Goldfinch	<i>Carduelis tristis</i>
Passeridae-Old World sparrows	
House Sparrow	<i>Passer domesticus</i> (I)

Table 20. List of mammals observed or expected to occur on EPYRWMA (26). Taxonomy according to Wilson and Reeder (35) and Integrated Taxonomic Information System (ITIS: 36); common names according to ITIS.

ORDER	(I) = introduced	
Family / Common name		Scientific name
DIDELPHIMORPHIA		
Family Didelphidae-American opossums		
Virginia opossum		<i>Didelphis virginiana</i>
XENARTHRA-EDENTATES		
Family Dasypodidae-armadillos		
Nine-banded armadillo		<i>Dasypus novemcinctus</i> (I)
RODENTIA-RODENTS		
Family Sciuridae-chipmunks, marmots and squirrels		
Eastern gray squirrel		<i>Sciurus carolinensis</i>
Southern fox squirrel		<i>Sciurus niger niger</i>
Southern flying squirrel		<i>Glaucomys volans</i>
Eastern chipmunk		<i>Tamias striatus</i>
Family Geomyidae-pocket gophers		
Southeastern pocket gopher		<i>Geomys pinetis</i>
Family Castoridae-beavers		
American beaver		<i>Castor canadensis</i>
Family Muridae-mice, rats and voles		
Eastern harvest mouse		<i>Reithrodontomys humulis</i>
Eastern woodrat		<i>Neotoma floridana</i>
Golden mouse		<i>Ochrotomys nuttalli</i>
Cotton mouse		<i>Peromyscus gossypinus</i>
Oldfield mouse		<i>Peromyscus polionotus</i>
Hispid cotton rat		<i>Sigmodon hispidus</i>
House mouse		<i>Mus musculus</i> (I)
Norway rat		<i>Rattus norvegicus</i> (I)
Black rat		<i>Rattus rattus</i> (I)
Family Echimyidae		
Nutria		<i>Myocastor coypus</i> (I)
LAGOMORPHA-LAGOMORPHS		
Family Leporidae-hares, rabbits		
Eastern cottontail		<i>Sylvilagus floridanus</i>
Marsh rabbit		<i>Sylvilagus palustris</i>
INSECTIVORA-INSECTIVORES		
Family Soricidae-shrews		

Southern short-tailed shrew *Blarina carolinensis*

Least shrew *Cryptotis parva*

Family Talpidae-desmans, moles, shrew-moles

Eastern mole *Scalopus aquaticus*

CHIROPTERA-BATS

Family Vespertilionidae-vespertilionid bats

Northern yellow bat *Lasiurus intermedius*

CARNIVORA-CARNIVORES

Family Felidae-cats

Bobcat *Lynx rufus*

Family Canidae-coyotes, dogs, foxes, jackals, wolves

Red fox *Vulpes vulpes*

Coyote *Canis latrans*

Gray fox *Urocyon cinereoargenteus*

Family Mustelidae-mustelids

Long-tailed weasel *Mustela frenata*

River otter *Lontra canadensis*

Family Ursidae-bears

Black bear *Ursus americanus*

Family Procyonidae-procyonids

Raccoon *Procyon lotor*

ARTIODACTYLA-ARTIODACTYLS (CLOVEN-HOOFED [EVEN-TOED] UNGULATES)

Family Suidae-hogs, pigs

Wild hog *Sus scrofa*

Family Cervidae-caribou, deer, moose

White-tailed deer *Odocoileus virginianus*

b. Endangered, Threatened and Species of Special Concern

There is record of one listed species within the EPYRWMA: the white-topped pitcher plant, *Sarracenia leucophylla* (6). This is a rare plant species (G3/S3) which is listed as endangered by the State of Florida (7). Table 21 lists several other listed species which occur within a one-mile buffer around the EPYRWMA, based on FWC data analysis (8). Some of these species may also occur within EPYRWMA based on proximity of occurrence records to the WMA boundary, and other data.

Table 21. Listed species records within a one-mile buffer around the EPYRWMA. Fish species possibly occur in waters adjacent to or near EPYRWMA based on past studies (11). Data sources: Florida Natural Areas Inventory (6, 9), FWC (8, 10, 11).

<u>Animals</u>				
<u>Common Name</u>	<u>Scientific Name</u>	<u>Order</u>	<u>Legal Status</u>	<u>FNAI Rank</u>
Bluenose shiner	<i>Pternotropis</i>	Cypriniformes	SSC	G3G4/S4

	<i>welaka</i>			
Gulf sturgeon	<i>Acipenser oxyrinchus desotoi</i>	Acipenseriformes	FLT, SSC	G3T2/S2
Saltmarsh topminnow	<i>Fundulus jenkinsi</i>	Cyprinodontiformes	FC, SSC	G3/S2
Florida black bear	<i>Ursus americanus floridanus</i>	Carnivora	SLT	G3/S3
Plants				
<u>Common Name</u>	<u>Scientific Name</u>	<u>Family</u>	<u>Legal Status</u>	<u>FNAI Rank</u>
Beaked spikerush	<i>Eleocharis rostellata</i>	Cyperaceae	SLE	G5/S1
Curtiss' sandgrass	<i>Calamovilfa curtissii</i>	Poaceae	SLT	G3/S3
Hairy wild indigo	<i>Baptisia calycosa</i> var. <i>villosa</i>	Fabaceae	SLT	G3T3/S3
Hummingbird flower	<i>Macranthera flammea</i>	Scrophulariaceae	SLE	G3/S2
Pine-woods bluestem	<i>Andropogon arctatus</i>	Poaceae	SLT	G3/S3
Spoon-leaved sundew	<i>Drosera intermedia</i>	Droseraceae	FLT	G5/S3
White-topped pitcher plant	<i>Sarracenia leucophylla</i>	Sarraceniaceae	FLE	G3/S3
Abbreviations: Federally listed endangered: FLE; federally listed threatened: FLT State listed endangered: SLE; federal candidate for listing: FC; state listed threatened: SLT; state species of special concern: SSC (10). FNAI rank definitions as explained in the FNAI Tracking List (9).				

Over 96% (1,118 acres) of the EPYRWMA includes upland or wetland habitats for wetland-dependent listed species (8, 14). These habitats are categorized for analytical purposes under a classification of land cover called priority wetlands (14). Since many wetland-dependent species use both upland and wetland habitats, these are also mapped separately. The wetland-dependent listed species predicted to occur in EPYRWMA are the American alligator (*Alligator mississippiensis*: FLT, SSC), Florida black bear (*Ursus americanus floridanus*: SLT), and gopher frog (*Rana capito*: SSC) (Table 22).

Type of Habitat for Wetland-dependent Species	Number of Wetland-dependent Species Expected to Occur	acreage
Upland	1 – 3	326
Wetland	1 – 3	792

D. Forest, Mineral, Scenic and Water Resources

1. Forest Resources

Section 253.036, F. S. requires that plans for 1,000+-acre parcels contain an analysis of multiple-use potential, to include a professional forester's assessment of the resource conservation and revenue-producing potentials of the tract's forests. FWC considers sustainable forest management consistent with the purposes for acquisition of this property, and when silvicultural practices necessary for wildlife habitat or ecosystem management objectives are deemed appropriate, personnel from the DOF, Forest Management Bureau will be consulted. A timber assessment conducted by the DACS, DOF indicates that conditions on EPYRWMA are not conducive to timber production.

2. Mineral Resources (geological conditions)

The Florida Geological Survey (FGS) provided a generalized discussion of the mineral resource potential of the EPYRWMA (29), which it refers to in this section as "subject parcels." The FGS generated the map of mineral resources (Figure 10) utilizing readily available GIS data layers and should be used for locational purposes only. The information used to compile this report was taken from the oil and gas permitting database, FGS mines database, local and regional geologic maps and other geologic references contained by the FGS. However, it is not a site-specific economic mineral resource or reserve evaluation.

In reference to the Geologic Map of Florida, the subject parcels reside on unconsolidated alluvium or the Citronelle Formation (29). Boring W-17634, west of the subject parcels, indicates the alluvium is composed of unconsolidated, light orange to gray silica sands. The Citronelle Formation is composed of unconsolidated silica sands, clayey sands, and gravels and contains massive kaolinitic clay beds interspersed and is greater than 200 feet in thickness.

Test wells for oil and gas have been drilled for multiple decades in Florida with limited success (29). To this date, the only oil and gas producing areas are in northwest Florida by Jay, the most successful, and along the Sunniland Trend in Lee and Collier Counties. The Jay area is approximately 32 miles north-northwest of the parcels in question, whereas the Sunniland Trend is approximately 435 miles away to the southeast. There are numerous oil test permits within 15 miles of the subject parcels however; all of them have been dry holes except those in the Jay Field. Oil test well W405 is within approximately 2 miles of the subject parcels. This test well was drilled to a depth of 6,871 feet below land surface. The well was found to be dry and was subsequently plugged and abandoned. The prospects of oil and gas discovery upon the subject parcels are considered to be medium to low.

Current FGS information indicates the subject parcels lithology to be composed of sands and clayey sand, and gravels and clays (34). There may be some potential as a local source of

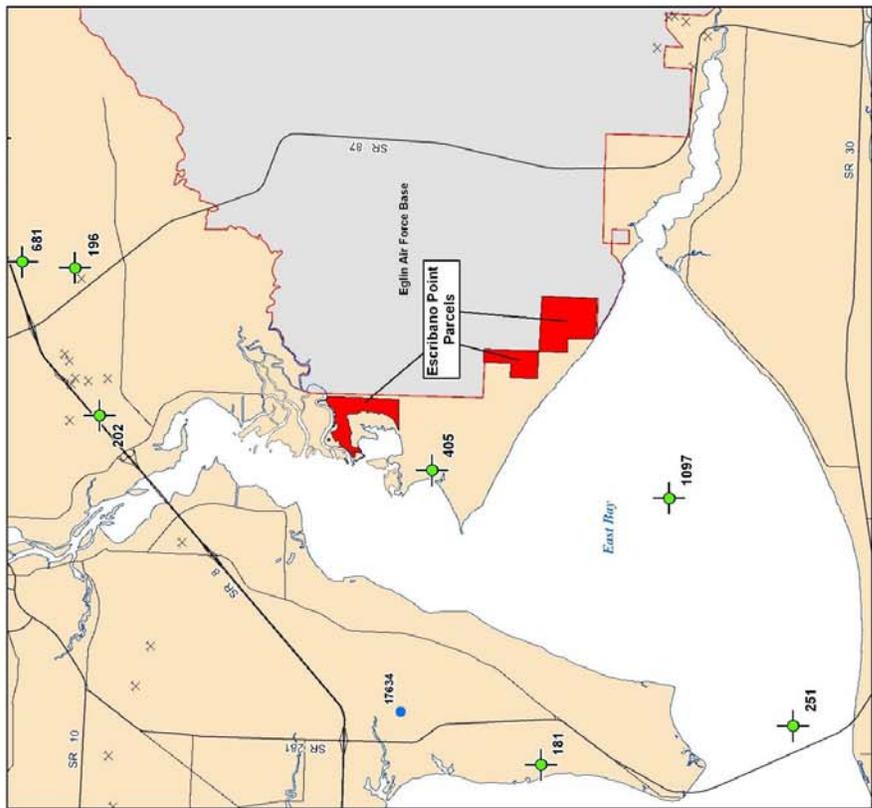
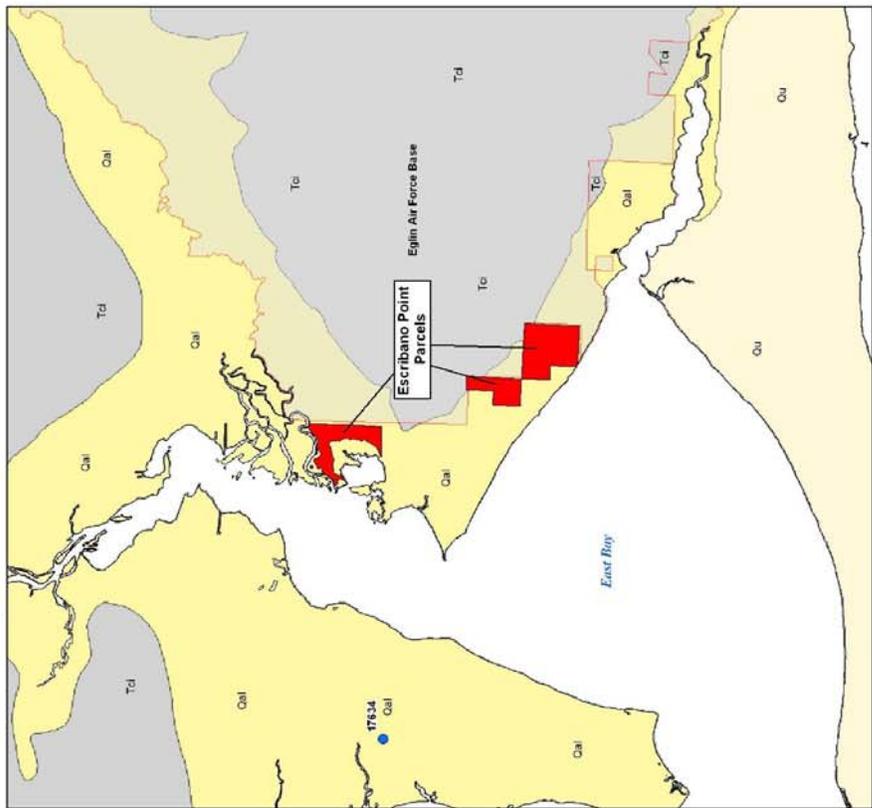
fill material for the surficial sands; however, the gravels and clays are not considered economically viable. A thorough site-specific geologic investigation by a licensed Florida Professional Geologist or Professional Geological firm would be useful to further assess the potential of this property.

3. Scenic Resources and Unique Natural Features

Article II, Section 7 of the Constitution of the State of Florida states that: “It shall be the policy of the state to conserve and protect its natural resources and scenic beauty. Adequate provision shall be made by law for the abatement of air and water pollution and of excessive and unnecessary noise and for the conservation and protection of natural resources.” Scenic vistas and viewsheds contribute to appreciation, attractiveness and enjoyment of conservation lands by the user community (18, 19).

Certain ecologies and landscapes of EPYRWMA may represent unique natural features. The northern parcel of EPYRWMA is an expanse of black needlerush marsh surrounding Catfish Basin and tidal creeks. This contrasts with green, shrubby ecotone and pine forest of slightly higher elevations. The southern parcels of EPYRWMA consist of relatively flat, gently sloping rise in elevation from East Bay towards higher uplands. This includes relatively unaltered areas of basin swamp dominated by pond cypress, maritime hammock and scrubby flatwoods which compose a mosaic of natural community types. Current and historic natural community types will be mapped and restored, by which natural successional processes are expected to improve characteristic scenery of the future landscape. The Blackwater Bay and East Bay shores offer an attractive view of tidewater environments and surrounding bays and coastlines.

Escribano Point BOT Land Parcels - Yellow River WMA



Explanation

- W17634
- Geology**
- Alluvium, Oal
- Undifferentiated Sediments, Ou
- Citronelle Formation, Tci
- Escribano Point BOT Parcels
- × Mines: Open Pits and Quarries
- Oil & Gas Permit Issued: Dry Hole, Plugged and Abandoned
- Military Bases
- Roads and Routes

Scale 1:120,000

0 2.5 5 Kilometers

0 2.5 5 Miles

North Arrow

Detailed Area

Figure 10: Mineral Resources
 (Produced by Florida Department of Environmental Protection)

4. Water Resources

a. Aquifer Classification of Santa Rosa County

The hydrostratigraphic section in the area of the EPYRWMA is comprised of three units (21). From shallowest to deepest unit, the hydrostratigraphic section consists of the Surficial Aquifer System, the Intermediate Aquifer System, and the Floridan Aquifer System. The Surficial Aquifer System (also known as the Sand and Gravel Aquifer) is comprised of approximately 300 feet of Pleistocene Age clastic deposits of the Citronelle Formation. The Surficial Aquifer System is typically an unconfined aquifer system, which is open to infiltration from the ground surface. The Surficial Aquifer System is the primary source of groundwater in Santa Rosa County.

The Intermediate Aquifer System is comprised of clays of the Upper Miocene Age Pensacola Clay (21). A sand layer, approximately 40 feet thick, divides the Pensacola Clay into an upper unit and a lower unit. This sand unit is referred to as the Escambia Sand Member. The Intermediate Aquifer System acts as a confining unit to the underlying Floridan Aquifer System. The Intermediate Aquifer System is typically a non-water-bearing unit. Local occurrences of groundwater are present in sand layers in this unit.

The Floridan Aquifer System is comprised of limestone formations of the Upper Eocene to Lower Miocene Ages (21). Limestone formations comprising the Floridan Aquifer System in Santa Rosa County include, from oldest to youngest, the Ocala Group, the Bucatunna Clay, The Chickasaway Limestone, and Tampa Formations undifferentiated. The Floridan Aquifer System is approximately 500 feet in thickness at the location of the EPYRWMA. In general, salinity of the Floridan Aquifer System increases with depth.

b. Water Quality Standards, Classifications, Uses, and Outstanding Florida Waters

According to the DEP, Division of Water Management, conservation of water is promoted by: 1. adherence to best management practices; 2. conservation of wetlands; 3. correct placement and maintenance of wastewater systems; 4. education; and 5. minimizing polluted runoff (27). Surface water quality standards are established by the DEP and include the following three main components: 1. classifications and attendant designated present and future most beneficial uses of the waters; 2. numeric and narrative criteria to support and protect those uses; and 3. an antidegradation policy for protection of water quality above the minimum required for a classification. Outstanding Florida Waters (OFWs) are a special designation that may be applied to waters in addition to the classification of the waterbody. Chapters 62-302 and 62-4, FAC, describe water quality standards.

There are two agencies with applicable responsibilities for the areas of water adjacent to and within the EPYRWMA. DEP is responsible for water quality standards, criteria, classes and uses. The DACS, Division of Aquaculture, Shellfish Evaluation and Assessment Section (SEAS) is responsible for assuring the health of humans who consume shellfish in and from Florida (27, 28).

In accordance with Chapter 62-302.400, F. A. C. the surface water classification of waters in the area of the EPYRWMA is as follows: Class II waters (Shellfish Harvesting or Propagation) are located in Blackwater Bay, adjacent to the northern parcel of EPYRWMA (27, 28). The Class II waters of Blackwater Bay extend northward to a line connecting Robinson's Point to Broad River. The Class II waters of East Bay and its tributaries extend from Blackwater Bay southward to Pensacola Bay (a line extending from Garcon Point on the north to Redfish Point on the south). SEAS conditionally approves Class II waters in East Bay south of Escribano Point for shellfish harvesting. Waters within and adjacent to the EPYRWMA that are not described as Class II have the Class III designated use of recreation, propagation and maintenance of a healthy, well balanced population of fish and wildlife, and the Class III criteria applied to them.

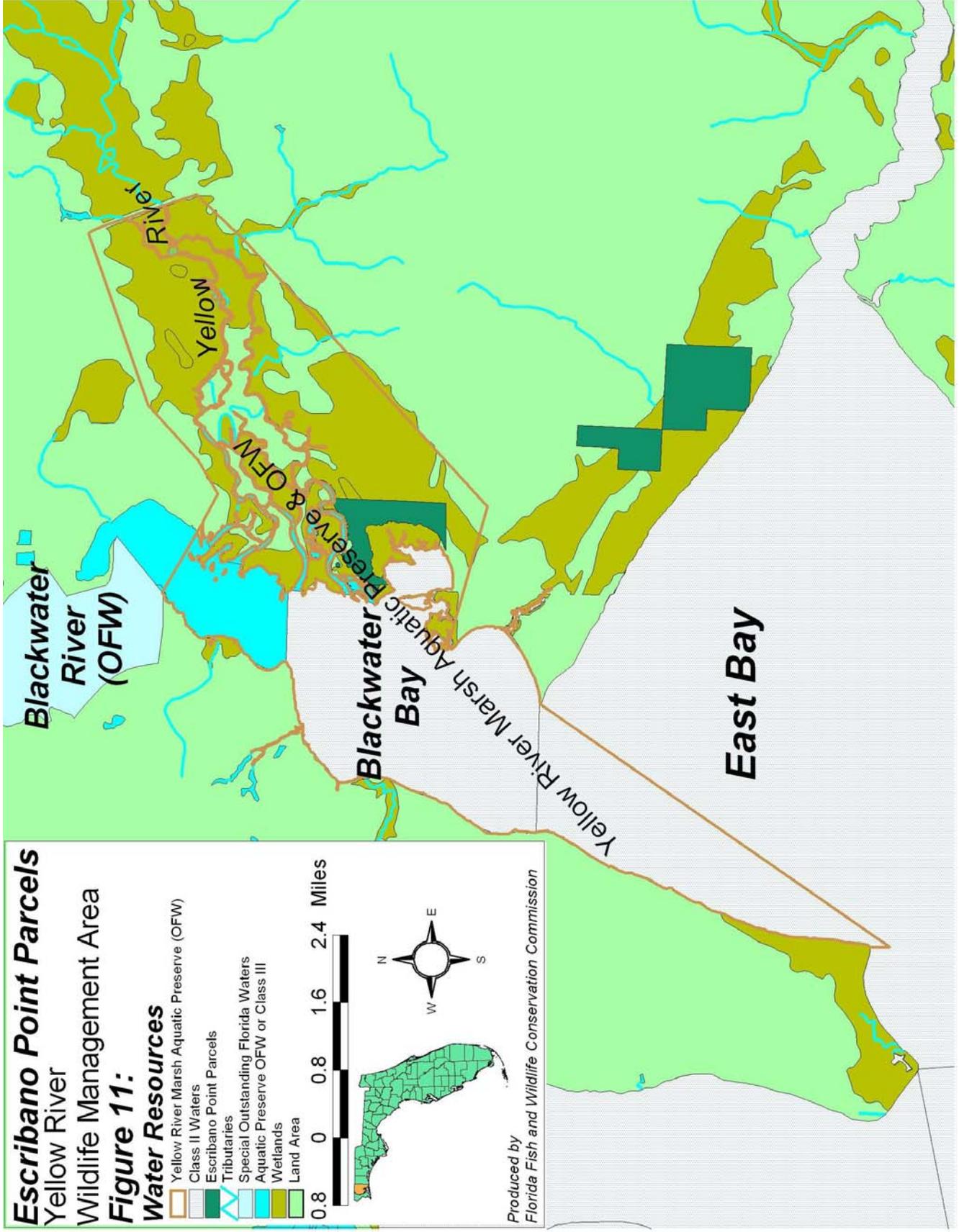
Figure 11 shows the distribution of OFWs within or adjacent to the EPYRWMA (27). OFWs in or near the WMA include the Yellow River Marsh Aquatic Preserve and the Escribano Point Florida Forever Project. Nearby, the Blackwater River is a Special Water OFW.

The intent of an OFW designation is to maintain ambient, or existing, water quality of waters with this designation (27). This is accomplished through stricter permit requirements in or adjacent to waters with this designation compared to waters without an OFW designation. In general, DEP (or the WMD if delegated) cannot issue permits for direct pollutant discharges to OFWs which would lower ambient water quality or for indirect discharges which would significantly degrade the OFW. Permits for new dredging and filling (Environmental Resource Permitting) must be clearly in the public interest. Some activities which result in direct discharge of stormwater to OFWs are required to retain or treat a larger amount of stormwater than facilities which discharge to non-OFW waters. There are other effects of an OFW designation to off-site uses such as greater setbacks for residuals application. Additionally, the DACS has developed best management practices for silvicultural and agricultural activities in or adjacent to waters that are more protective for OFWs.

The water quality of the Blackwater River watershed has been characterized as being of better water quality and having a low vulnerability to pollutants (21). However, historic pollutant levels exceeding Class III surface water standards have occurred in the watershed.

E. Beaches and Dunes

The property survey of the southernmost parcel in EPYRWMA shows 1,512 ft of shoreline along East Bay. However, there is no extensive beach or dunes, and this shore is not suitable for some recreational activities typical of high energy beach. The intertidal zone of unconsolidated bottom is a narrow, sandy beach which rises into an area of bay swamp and mixed wetland forest (Figures 2 and 6).



F. Native Landscapes

The Conceptual State Lands Management Plan (16) states: “Recognizing that little of Florida can be considered pristine, outstanding native Florida landscapes must be areas where natural systems predominate or where restoration of the native systems is economically and ecologically feasible.” The Florida Greenways Commission (17) set as one of its goals to: “Design and manage a statewide system of greenways that provides essential ecological linkages in order to: 1. conserve critical elements of Florida’s green infrastructure of native ecosystems and landscapes; and 2. facilitate the ability of these ecosystems and landscapes to function as dynamic systems and to maintain the evolutionary potential that will allow them to adapt to future environmental changes.”

Landscape connectivity is an important purpose of EPYRWMA and the Escribano Point Florida Forever Project (1). Connectivity to adjacent conservation lands promotes recreational opportunities and resource protection. Among important resource benefits of landscape connectivity are surface water hydrology, which protects Blackwater Bay and East Bay estuaries, and movement among habitats of wildlife species such as the Florida black bear (5).

G. Description of Resources Listed in the Florida Natural Areas Inventory

FNAI was established in accordance with Chapter 259.032, F. S. The mission of the FNAI is to collect, interpret, and disseminate ecological information critical to conservation of Florida's biological diversity. The FNAI develops and applies objective scientific procedures to identify and rank elements of Florida’s biodiversity including natural communities, animals and plants. In this way, biodiversity original to Florida’s environment is evaluated as to rarity, vulnerability and other factors necessary to avoid extinction or loss.

Tables 21 (listed species records) and 23 (FNAI element occurrence records) show occurrence data and rankings of FNAI elements (6, 8, 9). The FNAI maintains files of technical information about each element occurrence. Figure 12 shows locations of FNAI elements, including natural community occurrences. Tables 4-15 contain lists of plant species observed in the natural communities of EPYRWMA (5).

Table 23. FNAI element occurrence records of species within a one-mile buffer around the EPYRWMA. These are in addition to listed species elements in Table 21. Data sources: Florida Natural Areas Inventory (6, 9), FWC (8, 11).				
<u>Animals</u>				
<u>Common Name</u>	<u>Scientific Name</u>	<u>Order</u>	<u>Global Rank</u>	<u>State Rank</u>
Osprey	<i>Pandion haliaetus</i>	Falconiformes	G5	S3S4
Louisiana seaside sparrow	<i>Ammodramus maritimus fisheri</i>	Passeriformes	G4T4	S1
<u>Plants</u>				

<u>Common Name</u>	<u>Scientific Name</u>	<u>Family</u>	<u>Global Rank</u>	<u>State Rank</u>
Pond rush	<i>Cladium mariscoides</i>	Cyperaceae	G5	S1
Piedmont Water-milfoil	<i>Myriophyllum laxum</i>	Haloragaceae	G3	S3
West Florida Cow Lilly	<i>Nuphar lutea ssp. ulvacea</i>	Nymphaeaceae	G5T2	S2
FNAI rank definitions as explained in the FNAI Tracking List (9).				

H. Archaeological and Historic Resources

Historical resources, including archaeological (prehistoric) and historic sites, are considered important to understanding the settlement patterns and resource utilization of prehistoric and historic peoples in a certain region of the state (37). Management activities on EPYRWMA will be planned to minimize any disturbance to existing historical and archaeological sites, and sites with a high potential for archaeological site presence. Procedures outlined by the Department of State, Division of Historical Resources (DHR) will be followed to preserve such sites (Appendix C). FWC staff receive training from the DHR in management of cultural resources, and coordinate cultural resource management activities with the DHR.

One archaeological site, named Shell Hammock, occurs within the boundary of EPYRWMA according to the Florida Master Site File thematic data layer for GIS (20). This site (SR00760) is located in the maritime hammock of the northern parcel (38). The type of site is prehistoric shell midden with multiple components (8, 20). The shell midden itself is dated as 450-1,000 A.D (Weeden Island period). Other components include earlier time periods (Santa Rosa Swift Creek, 100-300 A.D.), and later time periods (Pensacola, second Spanish territorial period; 19th and 20th century American).

The FWC will continue to consult with the previous landowner and the DHR in an attempt to locate other sites and will contact the DHR for assistance prior to any ground-disturbing activity on the area. Data from the DHR indicates that many additional archaeological and historical sites occur within the area surrounding EPYRWMA (8, 20). This indicates potential occurrence of other cultural sites on the EPYRWMA.

III. USAGE OF THE PROPERTY

A. Description of Past Uses

The EPYRWMA was owned by private land holders and land holding companies from 1933 until purchase by the state in 2003 (21). Historic aerial photography showed the EPYRWMA to be mostly rural and undeveloped, although the southern parcels of EPYRWMA contained some trail roads and there occurred some land clearing prior to 1966. No unauthorized uses of the property have been identified.

B. Purposes for Acquisition of the Property

The purpose for state acquisition of the Escribano Point Florida Forever Project is as follows: “If purchased, the proposal plus these public lands would provide recreation opportunities and natural resource protection for 10.4 miles of shoreline along East Bay and Blackwater Bay. Its purchase would contribute to the protection of the waters of Blackwater Bay along with that afforded by the Garcon Point Water Management Area, which borders 4.6 miles of the west shore. It would also contribute protection of 37 miles of the Yellow River by adding to the public shoreline of the Yellow River Water Management Area. Uplands south of the river floodplain are protected as part of Eglin Air Force Base.” (1). A management prospectus (Appendix D) was prepared in accordance with Chapter 259.032 when EPYRWMA was approved for purchase under the Florida Forever Program. The management prospectus is made available to the public for a period of at least 30 days prior to the public hearing. Public uses specified for the Escribano Point Florida Forever Project include saltwater swimming, bicycling, picnicking, camping, saltwater fishing, hiking, hunting, nature appreciation and natural resource education (1). Boating, including canoeing, are additional public uses possible. Access is currently through Eglin Air Force Base.

C. Proposed Single- or Multiple-Use Management

FWC intends to continue to manage EPYRWMA as a multiple-use property within the guidelines of the Florida Forever Land Acquisition Program and advocates the specific uses listed in the analysis of multiple-use potential (below). Section 253.034, F. S. defines multiple use as “..the harmonious and coordinated management of timber, recreation, conservation of fish and wildlife, forage, archaeological and historic sites, habitat and other biological resources, or water resources so that they are utilized in the combination that will best serve the people of the state, making the most judicious use of the land for some or all of these resources and giving consideration to the relative values of the various resources.”

In order to accomplish its mission, the FWC has developed statements of management intent and goals and objectives for the EPYRWMA in order to set forth intentions of the agency as guided by the FWC Agency Strategic Plan (Appendix E). These goals and objectives serve to

accomplish the original purposes for land acquisition, as well as the desires of various user constituencies. Such lands are to be managed “..to enhance and conserve the lands and resources for the enjoyment of the people of the state.” (Section 253.034, F. S.)

D. Analysis of Multiple-use Potential

1. Proposed Uses

The following proposed use matrix indicates actions or activities considered under the multiple-use concept as possible uses to be allowed on the WMA. “Approved” uses are deemed to be in concert with the purposes for state acquisition, with the Conceptual State Lands Management Plan and with the FWC agency mission, goals and objectives as expressed in the Agency Strategic Plan. The term “Conditional” means the use may be acceptable, but will be allowed conditionally if approved through a process other than the plan development and approval process. “Rejected” means the item is not in concert with the purpose for state acquisition, with the Conceptual State Lands Management Plan and with the FWC agency mission. Approved or conditional uses in the proposed use matrix are contingent upon future public access that would be consistent with the purposes for which the lands were acquired.

Table 24. Proposed use matrix indicating actions or activities considered under the multiple-use concept as possible uses to be allowed on the WMA.

	Approved	Conditional	Rejected
• Protection of endangered and threatened species	✓		
• Ecosystem maintenance	✓		
• Soil and water conservation	✓		
• Hunting	✓		
• Fishing		✓	
• Wildlife observation	✓		
• Hiking	✓		
• Bicycling	✓		
• Horseback riding		✓	
• Timber harvest		✓	
• Cattle grazing			✓
• Camping	✓		
• Apiaries		✓	
• Linear facilities			✓
• Off road vehicle use			✓
• Environmental education	✓		
• Citriculture or other agriculture			✓
• Preservation of archeological and historical sites	✓		
• (Other uses as determined on an individual basis)		✓	

2. Description and Explanation of Alternate Uses

The following activities are considered conditional because they are not specified as a proposed purpose for acquisition, or in the management prospectus, but may be considered at some future time: apiaries, horseback riding, timber harvest, and other uses. Current goals and objectives for resource management, protection and restoration do not indicate these uses at this time. The following activities are rejected because they are not specified as a proposed purpose for acquisition, or in the management prospectus, and are not compatible with proposed goals and objectives of this CMP (Section IV. F): cattke grazing, citriculture and other agriculture, linear facilities, and off road vehicle use.

3. Revenues for Management and Use of Private Land Managers

Revenues generated by the EPYRWMA that could be applied to management programs would be those from fishing licenses, hunting licenses, special hunting stamps, wildlife management area stamps and day use permit fees for recreational uses as indicated in the above proposed use matrix. These revenues could be used to accomplish goals of FWC resource management programs. In addition, funding is often available from several federal and non-governmental sources which can be used for habitat management and ecological restoration. If funding from such sources were adequate, private land management services could be purchased in support of this. Ecotourism activities are also a potential source of revenue.

4. Purchase of Adjacent Property Essential for Management

Parcels listed in Table 2 and shown in Figure 3, if acquired, would make possible accomplishment of the public purposes of the Escribano Point Florida Forever Project (1). Management feasibility of the current configuration of the EPYRWMA would be improved by acquisition of lands important for accomplishment of resource management goals.

5. Evaluation of Lands Not Used for Purpose of Lease

All lands leased to the FWC under Board of Trustees lease number 4447, as addressed in this CMP, are to be used for the purpose for which they were originally leased. Therefore, no portion of the property is deemed as surplus.

IV. MANAGEMENT ACTIVITIES

A. Management Responsibilities of Each Agency

The FWC is lead agency responsible for overall land management as is necessary to accomplish the public purposes for which this property was acquired. Cooperating agencies include the DOD (Eglin Air Force Base) (EAFB), DEP, DACS-DOF, and the NFWFMD. The DHR is a cooperating agency pursuant to terms of lease number 4447 (Appendix A), for purposes of accomplishing cultural resource management as specified in sections II. H. (above), and goals and objectives pertaining to cultural resources in this CMP. The management responsibilities of each agency are as follows:

1. Fish and Wildlife Conservation Commission

The FWC is the lead agency responsible for: 1. acting in accordance with the terms of lease number 4447; 2. enforcing regulations governing activities and uses specific to the EPYRWMA, as well as general laws; and 3. implementing management intent, goals and objectives as detailed in this CMP. This includes overall responsibility for activities by contractors, cooperating entities and the public that makes use of the area.

2. Department of Environmental Protection

DEP is asked to be a cooperating agency under this CMP. Cooperation needed by the FWC will include assistance with administration of lease number 4447, law enforcement, purchase of adjacent property necessary for management activities involving and hydrological assessment and restoration.

3. Division of Forestry

DOF is asked to be a cooperating agency under this CMP. Cooperation needed by the FWC will include assistance with management and regulations relating to the occurrence of fire on the area and assessment of forest resources.

4. Eglin Air Force Base

EAFB is asked to be a cooperating agency under this CMP. Cooperation needed by the FWC will include assistance with law enforcement, prescribed burning, public recreation, sharing of information on wildlife resources, and provision of legal access as is necessary for the FWC to carry out lead agency management responsibilities.

5. Northwest Florida Water Management District

The NFWFMD is asked to be a cooperating agency under this CMP. Cooperation

needed by the FWC will include assistance with purchase of adjacent property necessary for management, assistance within hydrological assessment and restoration, and provision of legal access as is necessary for the FWC to carry out lead agency management responsibilities.

B. Management Needs and Challenges for the Property

This CMP includes statements of management intent, goals and objectives, and problems and strategies in Section IV. F. (below). The “Resource Management Challenges and Strategies” paragraphs address management needs and problems for the property.

C. Adjacent Land Uses that Conflict with the Planned Use

Attempts will be made to reconcile conflicting adjacent land uses so that the goals and objectives of this CMP can be best achieved. Cooperation with adjacent landowners will be part of the FWC strategy for effective land management.

D. Agency Plans to Locate, Identify, Protect, Preserve or Use Fragile, Nonrenewable Resources

Agency plans to locate, identify, protect, preserve or use fragile, nonrenewable resources such as cultural sites, listed species habitats, sensitive natural areas and wetlands are described in Section IV. F. of this CMP.

E. Assessment of Impact of Planned Uses on Resources

Management activities set forth in this CMP are to conserve, protect and restore resources, while providing quality natural-resource-based recreational opportunities for Floridians and visitors. Section IV. F. of this CMP details how planned activities on EPYRWMA will improve and maintain the condition of valuable cultural and natural resources. Resource-based recreation by the public will be designed and regulated to minimize adverse impacts to resources from public uses. Impacts relating to access and provision of facilities for public use will be minimized through implementation of effective design and regulatory standards.

F. Description of Existing or Planned Uses and Key Management Activities

1. Management Activities and Intent

Management intent on FWC-managed lands at EPYRWMA is to conserve, protect, and restore natural communities, to enhance water quality by restoring natural hydroperiods, to promote a diversity of wildlife habitats, including restoration of disturbed areas to native

vegetative communities, and to provide quality natural-resource-based recreational opportunities.

a. Vegetation Management

The FWC has contracted the FNAI to conduct surveys of current vegetative communities and historic vegetation communities on EPYRWMA. Information regarding the probable historic and current coverage of vegetative communities is needed to guide and prioritize restoration and management efforts on the area.

The FWC has adopted an objective-based approach to habitat management on Trustees-owned lands where FWC is designated lead manager. This approach includes delineation of management units, determination of management objectives for those units, and regular plant community monitoring. The first step in this process is to prepare plant community type maps for each managed area. Plant communities are type-mapped in accordance with FNAI classifications. Type-mapping is accomplished by means of contracted services, in accordance with a methodology developed jointly by FNAI and FWC.

Concurrent with managed area type-mapping FWC staff develops standard operating procedures, describing methodologies for random selection of sampling points, for determining sampling intensity, and for describing sampling methodologies for attributes associated with area management objectives.

After an area has been type-mapped, management units are delineated. Management unit delineation takes into account plant community type, existing and proposed infrastructure, and other management considerations. Habitat management objectives are developed for each management unit. Management units with similar characteristics may have the same management objectives. Management objectives are associated with one or more plant community attributes and their value ranges. These objectives are aimed at achieving preferred habitat conditions for specified plant or animal species.

Plant community monitoring involves sampling for variables associated with particular management objectives on an area. Initial sampling provides FWC staff with baseline data indicating the vegetative condition specified in the management objective. The method for post-treatment sampling will depend upon the nature of the variables specified by the management objective. For example, a variable such as basal area might not require as frequent sampling as mid-story height or species richness. Plant community sampling is done in accordance with methods outlined in the Terrestrial Habitat Conservation and Restoration Standard Operating Procedures Manual.

On EPYRWMA, FWC will focus on managing for native habitat diversity, emphasizing maintenance of high-quality natural communities, and restoration of disturbed areas. Restoration may be achieved on disturbed areas by restoring historic hydrological conditions, re-introduction of fire, and/or use of forest management techniques, including mechanical and chemical treatments. Retention of the native old growth component of forests remains an important

consideration. EPYRWMA has high-quality native communities including Bay Swamp (531 acres), Mixed Wetland Forest (263 acres), Pinelands (136 acres), Freshwater Marsh and Wet Prairie (103 acres), Hardwood Swamp (77 acres), Sandhill (36 acres), Mixed Pine-hardwood Forest (8 acres), Hardwood Hammocks and Forest (5 acres), and Shrub and Brushland (3 acres) that FWC will continue to manage and protect.

The state endangered white-topped pitcher plant is known to occur on EPYRWMA. Furthermore, it is possible that several other listed plant species may exist on EPYRWMA, as they are known to occur in close proximity to the area. These include beaked spikerush, Curtiss' sandgrass, hairy wild indigo, hummingbird flower, pine-woods bluestem, and spoon-leaved sundew.

Bay swamps, freshwater marshes and tidal marshes are managed for long-term maintenance and conservation, including restoration where applicable. By maintaining and restoring historic water flows to creeks, drains, and wetlands on the area, fresh water flow will increase downstream and filter into the tidal marshes. The fresh, brackish, and saltwater marshes occurring on and in proximity to EPYRWMA, are known to be very productive, and provide vital habitats for a variety of fish, invertebrate, and wildlife species. Enhancing and protecting the integrity of the swamps and marshes will help assure that these natural systems will continue to provide a source of food and nutrients, faunal habitats, water purification, storm buffers, and shoreline stabilization.

Some of the land that has been acquired has a history of silvicultural operations. These operations have included development of ditches, construction of a road network, and the suppression of fire. It is the intent of FWC to restore these areas to the original vegetative composition, habitat structure, species distribution, and habitat functions that existed prior to ground disturbance activities and silvicultural treatments. This will require restoration of normal hydroperiods, replanting of vegetation suitable to these areas, and the reintroduction of a prescribed burning regime that mimics natural fire events. Some of the restoration techniques listed above may be necessary, but the primary management tool will be to manage the mid- and understory vegetation through an active burning program.

The best method or combination of techniques will be applied on a landscape basis to manage the native plant communities, including rare and listed species. Restoration of the native ground cover on disturbed sites may be accomplished by direct seeding, restoring the historic hydrological conditions (sheet flow), establishing an effective prescribed fire management program with an emphasis on growing season burns, and the use of forest management techniques such as timber thinning.

The FWC controls and removes invasive plant species listed as Category I (most adversely affecting Florida's ecology), or as Category II (showing increasing abundance) by the Florida Exotic Pest Plant Council [FLEPPC] (30). There is an infestation of Chinese tallow tree (*Sapium sebiferum*; EPPC Category I) in the maritime hammock in parcel #1 (Figure 9). There will be surveillance for other infestations of exotic invasive plant species.

b. Wildlife Management

Natural communities on the EPYRWMA support numerous native wildlife species. Species associated with the area's estuarine tidal marshes include rails, saltmarsh and seaside sparrows, herons, egrets, eagles, and osprey. The older growth longleaf and slash pines have potential foraging habitat for red-cockaded woodpecker. Sandhill habitat is likely to support gopher tortoise and gopher frog. The wetlands have potential habitat for eastern tiger salamander, flatwoods salamander, and gopher frog. The imperiled bog frog has been observed to occur in adjacent wetlands of Eglin AFB, and may also occur on EPYRWMA. Wetland and upland areas provide habitat for Florida black bear. Portions of EPYRWMA (647 acres) have been designated as a Strategic Habitat Conservation Area for Florida black bear.

A significant need on EPYRWMA is the collection and updating of qualitative and quantitative data on wildlife populations. FWC will update inventories for certain species, with emphasis on endangered and threatened species. Monitoring of wildlife species of greatest interest will continue in the area, including surveys of rare and listed wildlife species. Through aerial surveys, numerous listed wading birds have been observed nesting in the vicinity to EPYRWMA. These include snowy egret (SSC), little blue heron (SSC), white ibis (SSC).

Listed animal species and their habitats are protected and restored by following approved Federal and State recovery plans, guidelines and other scientific recommendations. Land management activities including mechanical soil disturbance, prescribed burning, and timber stand improvements (thinnings) take into account rare species requirements, habitat needs and the potential for negative impacts from recreational activity or habitat management programs. In particular, prescribed burning precautions for bald eagle and osprey nesting trees and territories are addressed in the Prescribed Fire Plan for EPYRWMA.

Hunting is a recreational activity available on EPYRWMA, and FWC intends to manage game populations on a sustained-yield basis to assure healthy game populations. Continued monitoring of game species abundance will be accomplished through on-going game species surveys. The feral hog is found on EPYRWMA, but is not a native species to Florida. This exotic species is controlled on the area by providing a variety of public hunting opportunities.

c. Fisheries

Both sport and commercial fishing activities are prevalent in East Bay and Catfish Basin. Many species of native game fish are taken, with catfish, black bass, and bream being the most popular freshwater species, and red drum (redfish), spotted sea trout, flounder, striped bass, and sheepshead being popular saltwater species. Regulations for both freshwater and saltwater fishing may apply since both types of fish species occur in the area. FNAI lists the area as priority habitat for Gulf sturgeon. This species is commonly found in the Yellow River.

d. Public Use and Recreation

Management of fish and wildlife resources on the area is designed to provide opportunities for natural resource-based recreation. In addition to traditional hunting and fishing opportunities, public uses on EPYRWMA may include wildlife viewing, picnicking, photography, paddling, as well as other low-impact nature-based activities consistent with the approach outlined by FWC's Office of Recreational Services (ORS). To facilitate public use, FWC will establish and maintain a conservative network of roads designated for use by approved motorized vehicles. However, the use of non-motorized vehicles and hiking will be encouraged.

e. Cultural Resources

One site (SR00760; prehistoric shell midden) of cultural significance is known to occur on EPYRWMA, with an additional 41 sites known to occur within a one mile buffer of the area; other cultural sites may exist on EPYRWMA. FWC will continue to coordinate with the DHR to identify, monitor, interpret, and protect cultural resources on the area.

f. Hydrology

In cooperation with DEP and the NFWFMD, natural water regimes will be re-established to the extent practical. This is consistent with the primary purpose for the acquisition of the land and relates directly to the water quantity and quality aspects of the ecosystem. A hydrological assessment and restoration plan will be developed to provide a comprehensive approach to habitat restoration and management of the area. Estuarine waters of Blackwater Bay and East Bay adjacent to EPYRWMA are Class II, subject to approval by the State for shellfish harvesting.

g. Forest Resource Management

Pursuant to objective-based vegetative management goals, FWC will continue to manage timber resources for wildlife benefits and community restoration, including the use of timber harvesting and reforestation. Forest resource management activities include thinning of the forest overstory which includes areas of longleaf and slash pine, hydrological restoration and reintroduction of prescribed burning. These activities are important for re-establishment of vegetative communities and enhancement of wildlife habitats. Snags will be protected to benefit cavity-nesting species. Degraded or disturbed forested wetlands will be reforested with native species as necessary and appropriate.

Reforestation is occurring naturally on some sites. The primary management technique for encouraging reforestation is protection of young trees and seedlings on these sites from fire or other damage. However, planting trees on selected sites is used to increase the rate of reforestation and to ensure diversity.

h. Prescribed Burning

Periodic spring and summer fires occurred in fire-adapted communities under natural conditions. Plant species composition reflects the frequency and intensity of these fires. In the absence of fire, former longleaf sites follow a successional pattern through mixed pine-hardwood forests to a hardwood community. While the plant species involved may differ slightly on poorer soils of the slash pine flatwoods the dominant role of fire in controlling hardwoods is equally important in either vegetative community.

Timber removal, drainage, and the subsequent neglect of the area inhibit a more “natural” fire management strategy due to the combined effects of a reduced availability of fuel, and ground cover plant species composition. Site-specific combinations of prescribed fire, mechanical and chemical vegetation control, and reforestation are necessary to restore the naturally occurring plant community.

FWC will implement a prescribed burning program on EPYRWMA. FWC employs a fire management regime to increase both species and habitat diversity. Pursuant to vegetative management objectives, different burning intervals, different intensities (determined by firing methods), and seasonal timing of prescribed burns (dormant vs. growing season) create habitat diversity and a mosaic of vegetation patterns. This mosaic is designed to have both frequently burned and fire shadow aspects.

On some areas, prescribed burning is limited by the buildup of midstory fuels and a lack of understory fuels in the areas invaded by brush. This habitat condition is distinctly adverse for most wildlife species. Mechanical control of brush on upland sites by roller chopping and mowing can reduce shading and encourage the grasses and forbs that are necessary to propagate prescribed fire. Herbicide applications may be used where appropriate.

Roller chopping can be a valuable management tool, enabling the use of prescribed fires in areas heavily invaded by dense woody vegetation. However, roller chopping may damage the herbaceous ground cover, especially wiregrass; therefore, its application will be limited to situations where burning can only be accomplished by first reducing woody vegetation by mechanical means. Whenever possible, existing firebreaks such as roads and trails, as well as natural breaks such as creeks and wetlands, will be used to define burning compartments. Disk harrows, mowing, and foam lines will be used as necessary to minimize disturbance and damage created by fire plows.

Mechanical soil disturbance in sensitive habitats, such as wet prairies, and ecotones between uplands and wetlands, will be prohibited (with the possible exception of wildfire suppression) in order to protect rare species that often occur in those habitats. Additionally, fires will be allowed to burn into the edges of cypress swamps and other wetlands in order to maintain these ecotones. Silvicultural site preparation (roller chopping), OHV traffic, and creation of firebreaks are avoided when possible in these habitats.

2. Resource Management Goals and Objectives

The following goals and objectives have been developed specifically for Escribano Point. They represent ideas of FWC personnel in charge of managing and protecting the area, as well as those of cooperative managers, user groups, and other stakeholders from outside FWC. The agency further believes them to be consistent with the various forms of guidance provided to managers. Target dates for completion of objectives represent the end of the calendar year and collectively provide a priority schedule for accomplishing management actions on the area, as required by Florida Statutes. Long-term, annually reoccurring objectives are referred to as “Ongoing.” These objectives are presented first since they provide a continual and essential basis for the management program of the area.

Goal 1: Enhance, maintain, and restore the diversity and integrity of native natural communities.

Objective 1: Utilizing the EPYRWMA prescribed fire plan, employ a diverse fire regime designed to achieve a desired future condition (as determined by objective-based vegetative management [OBVM] objectives) on fire-dependent plant communities including salt and freshwater marshes (**ongoing**).

Objective 2: Protect and conserve wetlands through hydrological restoration, appropriate fire management, and management for old-growth forest conditions (**ongoing**).

Objective 3: Emphasize acquisition of adjacent conservation lands to enhance and protect natural resource integrity (**ongoing**).

Objective 4: Continue to collaborate, coordinate, and cooperate with the Gulf Coastal Plain Ecosystem Partnership, Eglin AFB, US Navy, JTL Escribano LLC, NFWFMD, Division of Forestry, DEP- CAMA, as well as other multi-agency committees and groups involved in regional natural resource management (**ongoing**).

Objective 5: Conserve listed animal species and their habitats, including isolated wetlands, by following approved Federal and State recovery plans, guidelines, and other scientific recommendations (**ongoing**).

Objective 6: Enforce existing regulations to proactively address illegal access and use of non-authorized vehicles that degrade sensitive habitats and species (**ongoing**).

Objective 7: To help limit fragmentation, reestablish connectivity of natural communities through hydrological restoration and the reestablishment of fire regimes that mimic natural conditions, and minimize artificial barriers such as roads, ditches, and firebreaks (**ongoing**).

Objective 8: Contract with FNAI to identify historic and current vegetative community types pursuant to objective-based vegetation management. (**Completed in 2006.**)

Objective 9: Contract for a systematic survey of invasive exotic plant species, such as cogongrass and Japanese climbing fern **by 2008**.

Objective 10: Contract for a hydrological assessment and restoration plan **by 2009**.

Objective 11: Contract for a systematic survey of rare and endangered plant species **by 2009**.

Objective 12: Develop quantifiable OBVM objectives **by 2011**.

Objective 13: Seek funding through the North Florida Upland Invasive Plant Council, or other sources, for invasive exotic plant control **by 2009**.

Objective 14: Using the Timber Assessment developed by DOF, implement management practices consistent with OBVM objectives **by 2010**.

Objective 15: To protect water resources, use the results of the hydrological assessment and restoration plan to initiate hydrological restoration by maintaining, improving or installing water control structures (i.e., culverts, hardened low water crossings, erosion control, soil stabilization, etc.) at appropriate locations **by 2012**.

Goal 2: Ensure FWC management activities are compatible with military operations of Choctaw Air Field and Eglin AFB.

Objective 1: Continue to collaborate, coordinate, and cooperate with Eglin AFB, the U. S. Navy, and the Gulf Coastal Plain Ecosystem Partnership in regional natural resource management **(ongoing)**.

Objective 2: Coordinate with officials from the U.S. Navy and Eglin AFB to ensure that prescribed burning management activities do not interfere with the operation of Choctaw Air Field **(ongoing)**.

Goal 3: Address resource information gaps by conducting surveys and inventories.

Objective 1: Periodically update faunal inventories, emphasizing rare and listed wildlife species, including wading bird rookeries, bald eagle/osprey nests, bog frog, gopher tortoise, and flatwoods salamander **(ongoing)**.

Objective 2: Continue to collaborate, coordinate, and cooperate in the sharing and dissemination of natural resource information with the Gulf Coastal Plain Ecosystem Partnership, Eglin AFB, US Navy, JTL Escribano LLC, NFWFMD, Division of Forestry, DEP-CAMA, as well as other multi-agency committees and groups involved in regional natural resource management **(ongoing)**.

Objective 3: Conduct opportunistic and systematic surveys of reptile and amphibian species **(ongoing)**.

Objective 4: Contract with FNAI to identify historic and current vegetative community types pursuant to objective-based vegetation management. **(Completed in 2006.)**

Objective 5: Contract for a systematic survey of invasive exotic plant species, such as cogongrass and climbing ferns **by 2008**.

Objective 6: Consult with DHR or others to determine the need for a cultural resource assessment **by 2008**.

Objective 7: Contract for a systematic survey of rare and endangered plant species **by 2009**.

Goal 4: Provide nature-based recreation and educational opportunities.

Objective 1: Complete the following nature-based recreation projects: web page, bird checklist, entrance kiosk and area map and evaluate the feasibility of a stopping point for paddlers traveling via the coastal paddling trail or the Yellow River **by 2008**.

Objective 2: Consult and cooperate with adjacent landowners including Eglin AFB, NFWFMD, and JTL Escribano LLC to assure adequate access to public recreation opportunities **(ongoing)**.

Objective 3: Continue to collaborate, coordinate, and cooperate in the design and scheduling of nature-based recreational opportunities with the Gulf Coastal Plain Ecosystem Partnership, Eglin AFB, US Navy, JTL Escribano LLC, NFWFMD, Division of Forestry, DEP- CAMA, as well as other multi-agency committees and groups involved in regional natural resource management **(ongoing)**.

Objective 4: Where appropriate, continue to maintain and improve the condition of the existing road network, as well as the condition of roads on new acquisitions **(ongoing)**.

Objective 5: Continue to provide a diversity of traditional hunting opportunities, including seasons for white-tailed deer, quail, dove, gray squirrel, turkey, waterfowl, and feral hog **(ongoing)**.

Objective 6: Consult DHR staff in any planning and development of interpretive information regarding cultural resources **(ongoing)**.

Objective 7: Monitor the level of public use to determine where picnic tables, trash receptacles, and toilet facilities may be warranted **(ongoing)**.

Objective 8: Enforce existing regulations to proactively address illegal access and use of non-

authorized vehicles (**ongoing**).

Goal 5: Continue to identify and protect cultural resources.

Objective 1: Contact DHR prior to site selection for all ground-disturbing activities (**ongoing**).

Objective 2: Involve DHR staff in planning and development of interpretive information regarding cultural resources (**ongoing**).

Objective 3: Protect the known prehistoric shell midden and cooperate with DHR in the identification of other possible cultural resources (**ongoing**).

Objective 4: Consult DHR staff in any planning and development of interpretive information regarding cultural resources (**ongoing**).

Goal 6: To assure landscape-scale linkages and wildlife corridors, and to achieve the goals of the Escribano Point Florida Forever Project, develop an optimum boundary by continuing to identify and pursue acquisition needs.

Objective 1: Continue to maintain a Geographic Information System (GIS) shapefile, acreage, and other necessary data to facilitate nominations for the FWC Additions and Inholdings Program list (**ongoing**).

Objective 2: Cooperate with and assist DEP-DSL in their efforts to complete the Escribano Point Florida Forever Project (**ongoing**).

3. Resource Management Challenges and Strategies

Challenge A: DOD's military mission and activities including pilot training at Choctaw AF constrains FWC's ability to conduct prescribed burns and requires complex coordination with adjacent and proximal land owners including Eglin AFB, US Navy (Choctaw Air Field), and JTL Escribano LLC to minimize smoke management concerns. In addition, the fragmented nature of the area and the existence of common boundaries with adjacent land owners present challenges to containing prescribed fire due to a lack of fire breaks.

Strategy 1: Implement a prescribed fire plan.

Strategy 2: Continue to collaborate, coordinate, and cooperate in the design and scheduling of prescribed burning activities with the Gulf Coastal Plain Ecosystem Partnership, Eglin AFB, US Navy, JTL Escribano LLC, NFWFMD, Division of Forestry, DEP- CAMA, as well as other multi-agency committees and groups involved in regional natural resource management.

Strategy 3: Where necessary and appropriate establish perimeter fire breaks.

Challenge B: Past silvicultural operations, as well as past development of roads, have

resulted in a significant alteration to natural hydrological conditions. This alteration is responsible for the loss of wildlife habitat and an alteration of fish habitat, and has contributed to water distribution, and water quality problems.

Strategy 1: Continue to collaborate, cooperate, and coordinate hydrological restoration efforts with the Gulf Coastal Plain Ecosystem Partnership, Eglin AFB, US Navy, JTL Escribano LLC, NFWFMD, Division of Forestry, DEP's Office of Coastal and Aquatic Managed Areas (CAMA), as well as other multi-agency committees and groups involved in regional natural resource management.

Strategy 2: Contract for a hydrological assessment and restoration plan.

Strategy 3: To protect water resources, use the results of the hydrological assessment and restoration plan to initiate hydrological restoration by maintaining, improving or installing water control structures (i.e., culverts, hardened low water crossings, etc.) at appropriate locations.

Strategy 4: On areas that have been disturbed prior to state acquisition, conduct an assessment to determine if soil erosion is occurring, and implement appropriate measures to stop or control the effects of such erosion.

Challenge C: A lack of practical and physical access hinders FWC's ability to manage EPYRWMA. Access is needed for management activities. Recreational opportunities are dependent upon the cooperation of adjacent land owners including NFWFMD, Eglin AFB, and JTL Escribano LLC.

Strategy 1: Continue to collaborate, coordinate, and cooperate with the Gulf Coastal Plain Ecosystem Partnership, Eglin AFB, US Navy, JTL Escribano LLC, NFWFMD, Division of Forestry, DEP-CAMA, as well as other multi-agency committees to ensure access to EPYRWMA.

Strategy 2: If necessary, pursue access easements to ensure effective access to EPYRWMA.

Strategy 3: Continue to maintain a Geographic Information System (GIS) shapefile, acreage, and other necessary data to facilitate nominations for the FWC Additions and Inholdings Program list.

Strategy 4: Cooperate with and assist DEP-DSL in their efforts to complete the Escribano Point Florida Forever Project.

Challenge D: Inventories of flora and fauna are incomplete. (Completed in 2006.)

Strategy 1: Develop contracts with FNAI and other outside providers to accomplish some of the necessary inventory work, especially with regard to existing, and historic plant communities.

Challenge E: Invasive exotic species, such as cogongrass, Japanese climbing fern, and feral

hogs occur on the area. These species and other exotics are detrimental to native plant and animal communities.

Strategy 1: Monitor the invasive and exotic species, and take appropriate measures to eradicate or control them.

Strategy 2: Seek funding through the North Florida Upland Invasive Plant Council, or other sources, for invasive exotic plant control.

Strategy 3: Supplement existing FWC monitoring efforts by contracting with private providers to accomplish a comprehensive inventory of invasive exotic plant species on the EPYRWMA.

Challenge F: Regulatory and recreational permitting differences between EPYRWMA and Eglin AFB create confusion for recreational users.

Strategy 1: Continue to coordinate regulation development and use permitting with Eglin AFB to minimize confusion and conflicts.

Challenge G: Habitat conditions in wetland and sandhill communities are not optimal for wildlife species. Previous land uses resulted in the conversion of these areas to a high density of titi and other invasive native woody vegetation.

Strategy 1: Utilizing the EPYRWMA prescribed fire plan, employ a diverse fire regime designed to achieve a desired future condition (as determined by objective-based vegetative management [OBVM] objectives) on fire-dependent plant communities.

Strategy 2: Protect and conserve wetlands through hydrological restoration, appropriate fire management, and management for old-growth forest conditions.

Strategy 3: Contract with Florida Natural Areas Inventory (FNAI) to identify historic and current vegetative community types pursuant to objective-based vegetation management.

Strategy 4: Implement roller chopping and a prescribed burning program in order to maintain beneficial understory conditions in pinelands.

G. Conservation of Soil and Water and Prevention of Soil Erosion

The FWC will employ best management practices for activities and projects which potentially impact soil and water in order to minimize soil erosion and protect water quality (23, 24). Soil disturbing activities will be conducted only in areas that present the least likelihood of causing erosion problems, avoiding the steepest slopes and streamside management zones. Soil disturbing activities will follow contours to the extent practicable.

H. Compliance with State Lands Management Plan

1. Balanced Public Utilization

Uses planned for the EPYRWMA are in compliance with the Conceptual State Lands Management Plan and its requirement for “balanced public utilization” and are in compliance with the mission of the FWC as described in its Agency Strategic Plan (Appendix E). These are indicated in section III. D. of this CMP (Analysis of Multiple-use Potential 1. Proposed Uses).

2. Agency, Statutory, Legislative or Executive Constraints

No such constraints are specific to this site.

I. Management Review Team Report

State lands managed by the FWC are subject to land management reviews in accordance with Chapter 259.036, F. S. The EPYRWMA is newly established. Since this is the first iteration of the conceptual management plan for the newly acquired EPYRWMA, a land management review has not yet been conducted.

J. Cost Estimates for Priority Management Activities

1. Cost-effective Methods

Tables 25 and 26 show estimated, unmet budgetary needs for managing the lands and resources of the EPYRWMA. This budget was developed using data gathered by FWC and other cooperating entities, and is based on actual costs for land management activities, equipment purchase and maintenance, and for development of fixed capital facilities. Although these cost estimates exceed what the FWC has been receiving through the appropriations process, it shows expected costs necessary to implement this CMP for the EPYRWMA. Budget categories are those currently recognized by FWC and the Land Management Uniform Cost Accounting Council established by the Florida Legislature. More information on these budget categories can be found in Appendix F. The FWC employs cost effective methods in its land management programs. These specific management activities are described above, in this section (Section IV).

2. Equipment Needed

Estimated equipment costs for vehicles, facilities and associated maintenance and operations are included in tables 25 and 26. Cost estimates for management activities include operational costs for existing equipment and some small equipment purchases. These management activities are described above, in this section (Section IV) of this CMP.

K. Consistency with the Local Government Local Comprehensive Plan

Santa Rosa County will determine if this CMP is consistent with the Local Government Comprehensive Plan for Santa Rosa County, as approved and adopted. The letter of determination of consistency will be contained in Appendix G.

L. Planned Facilities for Interpretation, Environmental Education and Outreach

Operational and resource management activities will require the availability of equipment and facilities on site. Information concerning resource-based recreation and resource management programs will be made available on site. The FWC intends to construct an equipment shed with a small office to serve these purposes.

M. Current Staff, Funding, Buildings and Equipment

FWC staff in the Northwest Region have extended their activities to include management of EPYRWMA and implementation of this CMP. Additional staff will be assigned and requested to implement this management plan as needed and supported by future funding. Current management activities are conducted primarily with existing equipment available to the region. The FWC intends to construct buildings as necessary to support operational and resource management programs on EPYRWMA.

N. Law Enforcement Entities on Site

FWC Division of Law Enforcement staff are not located on site, but patrol the area. FWC staff enforce applicable rules and regulations necessary to protect resources of EPYRWMA and as necessary to regulate fishing, hunting and other recreational use of the area.

**TABLE 25. ESCRIBANO POINT CONCEPTUAL MANAGEMENT PLAN:
STARTUP COST ESTIMATE**

<u>Resource Management</u>		<u>Priority schedule:</u>
Exotic Species Control	\$5,000	Immediate (annual)
Prescribed Burning	\$4,006	Intermediate (3-4 years)
Cultural Resource Management	\$2,500	Other (5+ years)
Timber Management	\$15,000	
Hydrological Management	\$8,500	
Other	\$30,353	
<u>subtotal</u>	\$39,359	
<u>Administration</u>		
General administration	\$1,836	
<u>Support</u>		
Land Management Planning	\$6,507	
Land Management Reviews	\$6,676	
Training/Staff Development	\$3,338	
Vehical Purchase	\$100,000	
Vehicle Operation and Maintenance	\$5,007	
Other	\$6,676	
<u>subtotal</u>	\$128,204	
<u>Capital Improvements</u>		
New Facility Construction	\$124,972	
Facility Maintenance	\$10,035	
<u>subtotal</u>	\$135,007	
<u>Visitor Services/Recreation</u>		
Info./Education/Operations	\$1,834	
<u>Law Enforcement</u>		
Resource protection	\$853	
<u>Total</u>	\$307,093	

TABLE 26. ESCRIBANO POINT CONCEPTUAL MANAGEMENT PLAN COST ESTIMATE: 2006-2016 TEN-YEAR PROJECTION

<u>Resource Management</u>		<u>Priority schedule:</u>
Exotic Species Control	\$57,319	Immediate (annual)
Prescribed Burning	\$45,920	Intermediate (3-4 years)
Cultural Resource Management	\$8,481	Other (5+ years)
Timber Management	\$171,958	
Hydrological Management	\$97,443	
Other	\$347,968	
<u>subtotal</u>	\$729,089	
<u>Administration</u>		
General administration	\$21,047	
<u>Support</u>		
Land Management Planning	\$74,595	
<i>Land Management Reviews</i>	\$23,126	
<i>Training/Staff Development</i>	\$11,563	
Vehicle Purchase	\$264,339	
Vehicle Operation and Maintenance	\$57,400	
Other	\$76,533	
<u>subtotal</u>	\$507,556	
<u>Capital Improvements</u>		
<i>New Facility Construction</i>	\$428,689	
Facility Maintenance	\$115,041	
<u>subtotal</u>	\$543,730	
<u>Visitor Services/Recreation</u>		
Info./Education/Operations	\$21,022	
<u>Law Enforcement</u>		
Resource protection	\$9,783	
<u>Total</u>	\$1,832,226	

V. COST ESTIMATES AND FUNDING SOURCES

The Fiscal Year 2006 operational plan shows cost estimates and categories of expenditures (Appendix F). Funds needed to protect and manage the property and to implement the recommended program are obtained primarily from the CARL Trust Fund, and from State Legislative appropriations. Private conservation organizations may act as cooperators with the FWC to fund specific projects. Alternative funding sources will be sought to supplement existing funding.

VI. ANALYSIS OF POTENTIAL FOR CONTRACTING PRIVATE VENDORS FOR RESTORATION AND MANAGEMENT ACTIVITIES

Land management and restoration activities are conducted to achieve effective, long-term conservation of Florida’s natural and cultural resources. Compliance with applicable standards and review of results are important considerations. The following management and restoration activities have been considered for outsourcing to private entities. It has been determined that items selected as “approved” below are those that FWC either does not have in-house capacity or expertise to accomplish, or which can be done at less cost by an outside provider of services. Those items selected as “rejected” represent those for which FWC has in-house expertise, and/or that the agency has found it can accomplish at less expense than through contracting with outside sources. “Conditional” items are those that could be done either by an outside provider or by the agency at virtually the same cost or with the same level of competence.

Table 27. Management and restoration activities considered for outsourcing.

	Approved	Conditional	Rejected
• Road development and maintenance		✓	
• Dike and levee maintenance		✓	
• Prescribed burning		✓	
• Vegetation inventories	✓		
• Timber harvest activities		✓	
• Public contact and educational facilities development	✓		
• Exotic species control		✓	

VII. COMPLIANCE WITH STATE, FEDERAL, AND LOCAL GOVERNMENT REQUIREMENTS

This CMP complies with governmental requirements as stated in sections IV. H. and IV. K of this CMP. Operational functions of FWC personnel are governed by the agency's Internal Management Policies and Procedures (IMPP) Manual. The IMPP Manual provides internal guidance regarding subjects affecting the responsibilities of agency personnel, including personnel management, safety issues, uniforms and personal appearance, training, accounting, purchasing and budgetary procedures. When public facilities are developed on areas managed by FWC, every effort is made to comply with Public Law 101-336, the Americans with Disabilities Act. As new facilities are developed, the universal access requirements of this law are followed in all cases except where the law allows reasonable exceptions (e.g., where handicap access is structurally impractical, or where providing such access would change the fundamental character of the facility being provided).

Uses planned for the WMA are in compliance with the Conceptual State Lands Management Plan and its requirement for "balanced public utilization," and are in compliance with the mission of the FWC as described in its Agency Strategic Plan (Appendix E). The future land use map (revised 8/13/2003) for the Santa Rosa County local government comprehensive plan locates EPYRWMA in the single family residential category. Since the EPYRWMA is now state-owned conservation lands, it could be recommended to be located in the conservation/recreation land use category if appropriate (39, 40). The FWC will cooperate with the Division of State Lands on a proposed land use change for the EPYRWMA.

VIII. BIBLIOGRAPHY

- (1) Florida Department of Environmental Protection. 2006. Florida forever five year plan. Division of State Lands, Tallahassee, Florida, USA.
<http://www.dep.state.fl.us/lands/acquisition/FloridaForever/FFAnnual/default.htm> (Date accessed: 10/9/06).
- (2) United States Department of Agriculture. 2002. USDA Detailed soils (SSURGO) (GIS Data Layer). Natural Resources Conservation Service, Gainesville, Florida, USA.
- (3) United States Department of Agriculture. Official soil series descriptions [Online WWW]. Soil Survey Staff, Natural Resources Conservation Service, Available URL:
<http://soils.usda.gov/technical/classification/osd/index.html> [Accessed 10 February 2004].
- (4) Southeast Regional Climate Center. 2005. Historical climate summaries for Florida. South Carolina Department of Natural Resources, Columbia, South Carolina, USA.
<http://cirrus.dnr.state.sc.us/cgi-bin/sercc/cliRECTM.pl?f15793> (Date accessed: 9/29/05).

- (5) Florida Natural Areas Inventory. 2006. Natural community descriptions to accompany a vegetation map of Escribano Point Wildlife and Environmental Area. Florida State University, Tallahassee, Florida, USA.
- (6) Florida Natural Areas Inventory. 2003. Florida element occurrence data layer. Florida State University, Tallahassee, Florida, USA.
- (7) Florida Department of Agriculture and Consumer Services. 2003. Notes on Florida's endangered and threatened plants. Contribution No. 38, 4th Edition. Division of Plant Industry, Bureau of Entomology, Nematology & Plant Pathology~Botany Section. Gainesville, Florida, USA.
- (8) Florida Fish and Wildlife Conservation Commission. 2005. Environmental resource analysis, resources-at-risk report. Division of Habitat and Species Conservation, Tallahassee, Florida, USA.
- (9) Florida Natural Areas Inventory. 2005. FNAI Tracking List. Florida State University, Tallahassee, Florida, USA. <http://www.fnai.org/bioticssearch.cfm>. (Dates accessed: May-June, 2005).
- (10) Florida Fish and Wildlife Conservation Commission. 2004. Florida's endangered species, threatened species, and species of special concern. Bureau of Wildlife Diversity Conservation, Tallahassee, Florida, USA.
- (11) Florida Fish and Wildlife Conservation Commission. 2005. Fish and fishery notes for the Yellow River Wildlife Management Area, including the Escribano Point area. Division of Habitat and Species Conservation, Tallahassee, Florida, USA.
- (12) Nelson, J. S., E. J. Crossman, H. Espinosa-Pérez, L. T. Findley, C. R. Gilbert, R. N. Lea, and J. D. Williams. 2004. Common and scientific names of fishes from the United States, Canada, and Mexico. Sixth edition. American Fisheries Society, Bethesda, Maryland, USA.
- (13) Florida Fish and Wildlife Conservation Commission. 2003. Some of Florida's freshwater exotic fishes. Non-native Fish Research Laboratory, Boca Raton, Florida, USA.
- (14) Kautz, R. J. Cox, M. MacLaughlin, and J. Stys. 1994. Mapping Wetland Habitats of High Priority to Endangered and Threatened Species in Florida. Final Project Report. Florida Fish and Wildlife Conservation Commission, Tallahassee, Florida, USA.
- (15) Florida Natural Areas Inventory and Department of Natural Resources. 1990. Guide to the natural communities of Florida. Tallahassee, Florida, USA.
- (16) Board of Trustees of the Internal Improvement Trust Fund. 1981. Conceptual state lands management plan. Department of Natural Resources, Division of State Lands, Tallahassee, Florida, USA.

- (17) Florida Greenways Commission. 1994. Creating a statewide greenways system. Florida Greenways Commission—Report to the Governor. Department of Environmental Protection. Tallahassee, Florida, USA.
- (18) Scenic America. 2005. Scenic easements & view protection. Washington, District of Columbia, USA. <http://www.scenic.org/> (Date accessed: 10/20/05).
- (19) United States Department of Interior, National Park Service. 2000. Merced Wild and Scenic River. Revised comprehensive management plan and supplemental environmental impact statement. Yosemite, California, USA. <http://www.nps.gov/yose/planning/mrp/>.
- (20) Florida Department of State. 2004. Florida Master Site File data layer. Division of Historical Resources. Tallahassee, Florida, USA.
- (21) WRS Infrastructure & Environment, Inc. 2003. Phase I environmental site assessment. Parker/Lowe/Pullum/Rice property, Escribano Point project. Sections 6, 7, 23 and 31 Township 1 South, Range 27 West. Milton, Santa Rosa County, Florida. FDEP Contract Number: SL 794, Task No: 00763. WRS Project No.: 303996—1L. Florida Department of Environmental Protection, Tallahassee, Florida, USA.
- (22) Florida Department of Environmental Protection. 2005. LABINS. Land boundary information system. Bureau of Survey and Mapping, Tallahassee, Florida, USA. <http://data.labins.org/imf3/LABINS/labins.jsp> (Date accessed: 9/21/05).
- (23) Florida Department of Environmental Protection. 2002. Florida green industries best management practices for protection of water resources in Florida. Tallahassee, Florida, USA.
- (24) Florida Department of Agriculture and Consumer Services. 2005. Silviculture best management practices. Division of Forestry, Tallahassee, Florida, USA.
- (25) Florida Fish and Wildlife Conservation Commission. 2006. Probable plant and animal species found in the Escribano Point and Catfish Basin properties. Division of Habitat and Species Conservation, Panama City, Florida, USA.
- (26) Peterson, R. T. and V. M. Peterson. 2002. A field guide to the birds of eastern and central North America. Fifth edition. Houghton Mifflin Company, New York, USA.
- (27) Florida Department of Environmental Protection. 2006. Water Quality Standards, Classifications, Uses, and Outstanding Florida Waters. Division of Water Management, Tallahassee, Florida, USA.

- (28) Florida Department of Agriculture and Consumer Services. 2005. Shellfish harvesting area classification map #02 (Effective: August 17, 2004). Division of Aquaculture, Tallahassee, Florida, USA. (<http://shellfish.floridaaquaculture.com/pdfmaps/02.pdf>. Date accessed: 7/31/06).
- (29) Florida Department of Environmental Protection. 2005. Memo dated October 21, 2005 from T. Greenhalgh and C. Kromhout to L. Minasian. Subject: Escribano Point BOT Lands. Florida Geological Survey, Tallahassee, Florida, USA.
- (30) Florida Exotic Pest Plant Council. 2005. List of Florida's Invasive Species. Internet: <http://www.fleppc.org/05list.htm>. (Date accessed: 10/3/06.)
- (31) Center for North American Herpetology. 2006. Standard Common and Current Scientific Names. Museum of Natural History, University of Kansas, Lawrence, Kansas, USA. <http://cnah.org/> (Date accessed: 10/6/06.)
- (32) Collins, J. T. and T. W. Taggart. 2002. Standard common and current scientific names for North American amphibians, turtles, reptiles & crocodilians. Fifth edition. Publication of The Center for North American Herpetology, Lawrence, Kansas, USA.
- (33) Florida Museum of Natural History. 2006. Herpetology. Gainesville, Florida, USA. <http://www.flmnh.ufl.edu/herpetology/> (Date accessed: 10/16/06.)
- (34) American Ornithologists' Union. 2005. The A.O.U. check-list of North American birds, seventh edition. McClean, Virginia, USA. <http://www.aou.org/checklist/index.php3> (Date accessed: 4/18/05.)
- (35) Wilson, D. E., and D. M. Reeder (eds). 2005. Mammal Species of the World. Johns Hopkins University Press, Baltimore, Maryland, USA. <http://nmnhgoph.si.edu/msw> (Date accessed: 10/3/06.)
- (36) United States Department of Agriculture, Natural Resources Conservation Service. 2006. Integrated Taxonomic Information System on-line database, <http://www.itis.gov>. (Date accessed: 10/18/06.)
- (37) Memory, M. et al., 1998. An Inventory and Assessment of Historical Resources within the Apalachicola River Wildlife and Environmental Area, Franklin and Gulf counties, Florida. C.A.R.L. Archaeological Survey, Bureau of Archaeological Research, Florida Division of Historical Resources, Tallahassee, Florida, USA.
- (38) Department of State, 1993. Florida Master Site File. Archaeological site form. Shell Hammock. Division of Historical Resources, Tallahassee, FL, USA.

(39) Santa Rosa County Board of County Commissioners. 2003. Santa Rosa County comprehensive plan: 2000-3030. Division of Community Planning, Zoning & Development, Milton, Florida, USA.

(40) Santa Rosa County Board of County Commissioners. 2003. Santa Rosa County future land use map series map 3-1-future land use map. Division of Community Planning, Zoning & Development, Milton, Florida, USA.

XIV. APPENDICES

Appendix A

**BOARD OF TRUSTEES OF THE INTERNAL IMPROVEMENT TRUST FUND
LEASE #4447**

SAL3

BOARD OF TRUSTEES OF THE INTERNAL IMPROVEMENT
TRUST FUND OF THE STATE OF FLORIDA

1,166.1 Acres

LEASE AGREEMENT

Lease Number 4447

This lease is made and entered into this 11th day of February, 2004, between the BOARD OF TRUSTEES OF THE INTERNAL IMPROVEMENT TRUST FUND OF THE STATE OF FLORIDA, hereinafter referred to as "LESSOR", and the STATE OF FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION, hereinafter referred to as "LESSEE".

WITNESSETH:

WHEREAS, the BOARD OF TRUSTEES OF THE INTERNAL IMPROVEMENT TRUST FUND OF THE STATE OF FLORIDA holds title to certain lands and property being utilized by the State of Florida for public purposes, and

WHEREAS, the BOARD OF TRUSTEES OF THE INTERNAL IMPROVEMENT TRUST FUND OF THE STATE OF FLORIDA is authorized in Section 253.03, Florida Statutes, to enter into leases for the use, benefit and possession of public lands by State agencies which may properly use and possess them for the benefit of the people of the State of Florida;

NOW, THEREFORE, for and in consideration of the mutual covenants and agreements hereinafter contained, LESSOR leases the below described premises to LESSEE subject to the following terms and conditions:

1. DELEGATIONS OF AUTHORITY: LESSOR'S responsibilities and obligations herein shall be exercised by the Division of State Lands, Department of Environmental Protection.
2. DESCRIPTION OF PREMISES: The property subject to this lease is situated in the County of Dade, State of Florida and is more particularly described in Exhibit "A" attached hereto and hereinafter called the "leased premises".
3. TERM: The term of this lease shall be for a period of fifty years, commencing on February 11, 2004 and ending on February 10, 2054, unless sooner terminated pursuant to the provisions of this lease.
4. PURPOSE: LESSEE shall manage the leased premises only for the conservation and protection of natural and historical resources and resource based public outdoor recreation which is compatible with the conservation

and protection of these public lands, as set forth in subsection 259.032(11), Florida Statutes, along with other related uses necessary for the accomplishment of this purpose as designated in the Management Plan required by paragraph 7 of this lease.

5. QUIET ENJOYMENT AND RIGHT OF USE: LESSEE shall have the right of ingress and egress to, from and upon the leased premises for all purposes necessary to the full quiet enjoyment by said LESSEE of the rights conveyed herein.

6. UNAUTHORIZED USE: LESSEE shall, through its agents and employees, prevent the unauthorized use of the leased premises or any use thereof not in conformance with this lease.

7. MANAGEMENT PLAN: LESSEE shall prepare and submit a Management Plan for the leased premises, in accordance with Section 253.034, Florida Statutes, and subsection 18-2.021(4), Florida Administrative Code, within twelve months of the effective date of this lease. The Management Plan shall be submitted for approval to the Department of Environmental Protection, Division of State Lands, Office of Environmental Services, Mail Station 140, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000. The leased premises shall not be developed or physically altered in any way other than what is necessary for security and maintenance of the leased premises without the prior written approval of LESSOR until the Management Plan is approved. The Management Plan shall emphasize the original management concept as approved by LESSOR at the time of acquisition, which established the primary public purpose for which the leased premises were acquired. The approved Management Plan shall provide the basic guidance for all management activities. LESSEE shall not use or alter the leased premises except as provided for in the approved Management Plan without the prior written approval of LESSOR. The Management Plan prepared under this lease shall identify management strategies for exotic species, if present. The introduction of exotic species is prohibited, except when specifically authorized by the approved Management Plan.

8. RIGHT OF INSPECTION: LESSOR or its duly authorized agents shall have the right at any and all times to inspect the leased premises and the works and operations thereon of LESSEE, in any matter pertaining to this lease.

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8. RIGHT OF INSPECTION: LESSOR or its duly authorized agents shall have the right at any and all times to inspect the leased premises and the works and operations thereon of LESSEE, in any matter pertaining to this lease.
9. INSURANCE REQUIREMENTS: LESSEE shall procure and maintain fire and extended risk insurance coverage, in accordance with Chapter 284, F.S., for any buildings and improvements located on the leased premises by preparing and delivering to the Division of Risk Management, Department of Insurance, a completed Florida Fire Insurance Trust Fund Coverage Request Form and a copy of this lease immediately upon erection of any structures as allowed by paragraph 4 of this lease. A copy of said form and immediate notification in writing of any erection or removal of structures or other improvements on the leased premises and any changes affecting the value of the improvements shall be submitted to the following: Bureau of Public Land Administration, Division of State Lands, Department of Environmental Protection, Mail Station 130, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000.
10. LIABILITY: LESSEE shall assist in the investigation of injury or damage claims either for or against LESSOR or the State of Florida pertaining to LESSEE'S respective areas of responsibility under this lease or arising out of LESSEE'S respective management programs or activities and shall contact LESSOR regarding the legal action deemed appropriate to remedy such damage or claims.
11. ARCHAEOLOGICAL AND HISTORIC SITES: Execution of this lease in no way affects any of the parties' obligations pursuant to Chapter 267, Florida Statutes. The collection of artifacts or the disturbance of archaeological and historic sites on state-owned lands is prohibited unless prior authorization has been obtained from the Department of State, Division of Historical Resources. The Management Plan prepared pursuant to Section 253.034, Florida Statutes, shall be reviewed by the Division of Historical Resources to insure that adequate measures have been planned to locate, identify, protect and preserve the archaeological and historic sites and properties on the leased premises.
12. EASEMENTS: All easements including, but not limited to, utility easements are expressly prohibited without the prior written approval of

LESSOR. Any easement not approved in writing by LESSOR shall be void and without legal effect.

13. SUBLEASES: This lease is for the purposes specified herein and subleases of any nature are prohibited, without the prior written approval of LESSOR. Any sublease not approved in writing by LESSOR shall be void and without legal effect.

14. POST CLOSING RESPONSIBILITIES: In an effort to define responsibilities of the LESSOR and LESSEE with regard to resolving post closing management issues, the parties agree to the following:

- a. After consultation with the LESSEE, LESSOR agrees to provide the LESSEE with the title, survey and environmental products procured by the LESSOR, prior to closing.
- b. LESSOR will initiate surveying services to locate and mark boundary lines of specific parcels when necessary for immediate agency management and will provide a boundary survey of the entire acquisition project at the conclusion of all acquisition within the project boundary. Provided, however, the LESSEE may request individual parcel boundary surveys, if necessary, prior to the conclusion of acquisition activities within the project boundaries.
- c. Unless otherwise agreed to by LESSEE, LESSOR shall at its sole cost and expense, make a diligent effort to resolve all issues pertaining to all title defects, survey matters or environmental contamination associated with the leased premises, including but not limited to trash and debris, which were either known or should have been reasonably known by LESSOR at the time LESSOR acquired the leased premises. Notwithstanding the foregoing, LESSOR will not be responsible for any of LESSEE'S attorney's fees, costs, or liability or damages incurred by the LESSEE in resolving any issue in which the LESSEE is named as a party in any litigation or other legal or administrative proceeding.
- d. With regard to all title defects, survey matters, or environmental contamination associated with the leased premises

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which were not known or could not have been reasonably known by LESSOR at the time LESSOR acquired the leased premises, LESSOR and LESSEE agree to cooperate in developing an appropriate strategy for jointly resolving these matters. LESSOR acknowledges and understands that LESSEE is unable to commit any substantial amount of their routine operating funds for the resolution of any title defect, survey matter, or environmental contamination associated with the lease premises. Notwithstanding the foregoing, LESSOR will not be responsible for any of LESSEE'S attorney's fees, costs, or liability or damages incurred by the LESSEE in resolving any issue in which the LESSEE is named as a party in any litigation or other legal or administrative proceeding.

15. SURRENDER OF PREMISES: Upon termination or expiration of this lease LESSEE shall surrender the leased premises to LESSOR. In the event no further use of the leased premises or any part thereof is needed, written notification shall be made to the Bureau of Public Land Administration, Division of State Lands, Department of Environmental Protection, Mail Station 130, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000, at least six months prior to the release of all or any part of the leased premises. Notification shall include a legal description, this lease number and an explanation of the release. The release shall only be valid if approved by LESSOR through execution of a release of lease instrument with the same formality as this lease. Upon release of all or any part of the leased premises or upon expiration or termination of this lease, all permanent improvements, including both physical structures and modifications to the leased premises, shall become the property of LESSOR, unless LESSOR gives written notice to LESSEE to remove any or all such improvements at the expense of LESSEE. The decision to retain any improvements upon termination of this lease shall be at LESSOR'S sole discretion. Prior to surrender of all or any part of the leased premises, a representative of the Division of State Lands shall perform an on-site inspection and the keys to any buildings on the leased premises shall be turned over to the Division. If the leased premises and

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improvements located thereon do not meet all conditions set forth in paragraphs 18 and 21 herein, LESSEE shall pay all costs necessary to meet the prescribed conditions.

16. BEST MANAGEMENT PRACTICES: LESSEE shall implement applicable Best Management Practices for all activities conducted under this lease in compliance with paragraph 18-2.018(2)(h), Florida Administrative Code, which have been selected, developed, or approved by LESSOR, LESSEE or other land managing agencies for the protection and enhancement of the leased premises.

17. PUBLIC LANDS ARTHROPOD CONTROL PLAN: LESSEE shall identify and subsequently designate to the respective arthropod control district or districts within one year of the effective date of this lease all of the environmentally sensitive and biologically highly productive lands contained within the leased premises, in accordance with Section 388.4111, Florida Statutes and Chapter 5E-13, Florida Administrative Code, for the purpose of obtaining a public lands arthropod control plan for such lands.

18. UTILITY FEES: LESSEE shall be responsible for the payment of all charges for the furnishing of gas, electricity, water and other public utilities to the leased premises and for having all utilities turned off when the leased premises are surrendered.

19. ASSIGNMENT: This lease shall not be assigned in whole or in part without the prior written consent of LESSOR. Any assignment made either in whole or in part without the prior written consent of LESSOR shall be void and without legal effect.

20. PLACEMENT AND REMOVAL OF IMPROVEMENTS: All buildings, structures, improvements, and signs shall be constructed at the expense of LESSEE in accordance with plans prepared by professional designers and shall require the prior written approval of LESSOR as to purpose location, and design. Further, no trees, other than non-native species, shall be removed or major land alterations done without the prior written approval of LESSOR. Removable equipment placed on the leased premises by LESSEE which do not become a permanent part of the leased premises will remain the property of LESSEE and may be removed by LESSEE upon termination of this lease.

21. MAINTENANCE OF IMPROVEMENTS: LESSEE shall maintain the real property contained within the leased premises and any improvements located thereon,

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in a state of good condition, working order and repair including, but not limited to, keeping the leased premises free of trash or litter, maintaining all planned improvements as set forth in the approved Management Plan, meeting all building and safety codes in the location situated and maintaining any and all existing roads, canals, ditches, culverts, risers and the like in as good condition as the same may be at the date of this lease; provided, however, that any removal, closure, etc., of the above improvements shall be acceptable when the proposed activity is consistent with the goals of conservation, protection, and enhancement of the natural and historical resources within the leased premises and with the approved Management Plan.

22. ENTIRE UNDERSTANDING: This lease sets forth the entire understanding between the parties and shall only be amended with the prior written approval of LESSOR.

23. BREACH OF COVENANTS, TERMS, OR CONDITIONS: Should LESSEE breach any of the covenants, terms, or conditions of this lease, LESSOR shall give written notice to LESSEE to remedy such breach within sixty days of such notice. In the event LESSEE fails to remedy the breach to the satisfaction of LESSOR within sixty days of receipt of written notice, LESSOR may either terminate this lease and recover from LESSEE all damages LESSOR may incur by reason of the breach including, but not limited to, the cost of recovering the leased premises or maintain this lease in full force and effect and exercise all rights and remedies herein conferred upon LESSOR.

24. NO WAIVER OF BREACH: The failure of LESSOR to insist in any one or more instances upon strict performance of any one or more of the covenants, terms and conditions of this lease shall not be construed as a waiver of such covenants, terms and conditions, but the same shall continue in full force and effect, and no waiver of LESSOR of any one of the provisions hereof shall in any event be deemed to have been made unless the waiver is set forth in writing, signed by LESSOR.

25. PROHIBITIONS AGAINST LIENS OR OTHER ENCUMBRANCES: Fee title to the leased premises is held by LESSOR. LESSEE shall not do or permit anything which purports to create a lien or encumbrance of any nature against the real property contained in the leased premises including, but not limited

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to, mortgages or construction liens against the leased premises or against any interest of LESSOR therein.

26. CONDITIONS AND COVENANTS: All of the provisions of this lease shall be deemed covenants running with the land included in the leased premises, and construed to be "conditions" as well as "covenants" as though the words specifically expressing or imparting covenants and conditions were used in each separate provision.

27. DAMAGE TO THE PREMISES: (a) LESSEE shall not do, or suffer to be done, in, on or upon the leased premises or as affecting said leased premises or adjacent properties, any act which may result in damage or depreciation of value to the leased premises or adjacent properties, or any part thereof. (b) LESSEE shall not generate, store, produce, place, treat, release or discharge any contaminants, pollutants or pollution, including, but not limited to, hazardous or toxic substances, chemicals or other agents on, into, or from the leased premises or any adjacent lands or waters in any manner not permitted by law. For the purposes of this lease, "hazardous substances" shall mean and include those elements or compounds defined in 42 USC Section 9601 or which are contained in the list of hazardous substances adopted by the United States Environmental Protection Agency (EPA) and the list of toxic pollutants designated by the United States Congress or the EPA or defined by any other federal, state or local statute, law, ordinance, code, rule, regulation, order or decree regulating, relating to, or imposing liability or standards of conduct concerning any hazardous, toxic or dangerous waste, substance, material, pollutant or contaminant. "Pollutants" and "pollution" shall mean those products or substances defined in Chapters 376 and 403, Florida Statutes, and the rules promulgated thereunder, all as amended or updated from time to time. In the event of LESSEE'S failure to comply with this paragraph, LESSEE shall, at its sole cost and expense, promptly commence and diligently pursue any legally required closure, investigation, assessment, cleanup, decontamination, remediation, restoration and monitoring of (1) the leased premises, and (2) all off-site ground and surface waters and lands affected by LESSEE'S such failure to comply, as may be necessary to bring the leased premises and affected off-site waters and lands into full compliance with all applicable federal,

Page 8 of 20
Lease No. 4447

R07/29/02

state or local statutes, laws, ordinances, codes, rules, regulations, orders and decrees, and to restore the damaged property to the condition existing immediately prior to the occurrence which caused the damage. LESSEE'S obligations set forth in this paragraph shall survive the termination or expiration of this lease. Nothing herein shall relieve LESSEE of any responsibility or liability prescribed by law for fines, penalties and damages levied by governmental agencies, and the cost of cleaning up any contamination caused directly or indirectly by LESSEE'S activities or facilities. Upon discovery of a release of a hazardous substance or pollutant, or any other violation of local, state or federal law, ordinance, code, rule, regulation, order or decree relating to the generation, storage, production, placement, treatment, release or discharge of any contaminant, LESSEE shall report such violation to all applicable governmental agencies having jurisdiction, and to LESSOR, all within the reporting periods of the applicable governmental agencies.

28. PAYMENT OF TAXES AND ASSESSMENTS: LESSEE shall assume full responsibility for and shall pay all liabilities that accrue to the leased premises or to the improvements thereon, including any and all drainage and special assessments or taxes of every kind and all mechanic's or materialman's liens which may be hereafter lawfully assessed and levied against the leased premises.

29. RIGHT OF AUDIT: LESSEE shall make available to LESSOR all financial and other records relating to this lease and LESSOR shall have the right to audit such records at any reasonable time. This right shall be continuous until this lease expires or is terminated. This lease may be terminated by LESSOR should LESSEE fail to allow public access to all documents, papers, letters or other materials made or received in conjunction with this lease, pursuant to Chapter 119, Florida Statutes.

30. NON-DISCRIMINATION: LESSEE shall not discriminate against any individual because of that individual's race, color, religion, sex, national origin, age, handicap, or marital status with respect to any activity occurring within the leased premises or upon lands adjacent to and used as an adjunct of the leased premises.

31. COMPLIANCE WITH LAWS: LESSEE agrees that this lease is contingent upon and subject to LESSEE obtaining all applicable permits and complying with all applicable permits, regulations, ordinances, rules, and laws of the State of Florida or the United States or of any political subdivision or agency of either.

32. TIME: Time is expressly declared to be of the essence of this lease.

33. GOVERNING LAW: This lease shall be governed by and interpreted according to the laws of the State of Florida.

34. SECTION CAPTIONS: Articles, subsections and other captions contained in this lease are for reference purposes only and are in no way intended to describe, interpret, define or limit the scope, extent or intent of this lease or any provisions thereof.

35. ADMINISTRATIVE FEE: LESSEE shall pay LESSOR an annual administrative fee of \$300. The initial annual administrative fee shall be payable within thirty days from the date of execution of this lease agreement and shall be prorated based on the number of months or fraction thereof remaining in the fiscal year of execution. For purposes of this lease agreement, the fiscal year shall be the period extending from July 1 to June 30. Each annual payment thereafter shall be due and payable on July 1 of each subsequent year.

36. SPECIAL CONDITIONS: The following special conditions shall apply to this lease: None.

IN WITNESS WHEREOF, the parties have caused this lease to be executed on the day and year first above written.

BOARD OF TRUSTEES OF THE INTERNAL IMPROVEMENT TRUST FUND OF THE STATE OF FLORIDA

Judy Woodard
Witness
Judy Woodard
Print/Type Witness Name
Mahogany Simmons
Witness
Mahogany Simmons
Print/Type Witness Name

By: Gloria C. Nelson (SEAL)
GLORIA C. NELSON, OPERATIONS AND MANAGEMENT CONSULTANT MANAGER, BUREAU OF PUBLIC LAND ADMINISTRATION, DIVISION OF STATE LANDS, DEPARTMENT OF ENVIRONMENTAL PROTECTION

"LESSOR"

STATE OF FLORIDA
COUNTY OF LEON

The foregoing instrument was acknowledged before me this 11th day of February, 2004, by Gloria C. Nelson, as Operations and Management Consultant Manager, Bureau of Public Land Administration, Division of State Lands, Florida Department of Environmental Protection, acting as agent on behalf of the Board of Trustees of the Internal Improvement Trust Fund of the State of Florida.

Theresa M. Brady
Notary Public, State of Florida

Print/Type Notary Name

Commission Number:

Commission Expires:



Theresa M. Brady
Commission # DD081826
Expires Jan. 2, 2006
Bonded Thru
Atlantic Bonding Co., Inc.

Approved as to Form and Legality

By: Gloria C. Nelson
DEP Attorney

STATE OF FLORIDA FISH AND WILDLIFE
CONSERVATION COMMISSION

Sabrina Menendez
Witness
Sabrina Menendez
Print/Type Witness Name
Brenda Collins
Witness
Brenda Collins
Print/Type Witness Name

By: Victor J. Heller (SEAL)
Print/Type Name Victor J. Heller
Assistant Executive Director
Title: Assist. Exec. Director
"LESSEE"

STATE OF FLORIDA
COUNTY OF LEON

The foregoing instrument was acknowledged before me this 30th day of January, 2004, by Victor J. Heller, as Assistant Executive Director, State of Florida Fish and Wildlife Conservation Commission. He is personally known to me or produced as identification.

Jimmie C. Bevis
Notary Public, State of Florida
JIMMIE C. BEVIS
Print/Type Notary Name
Commission Number:  MY COMMISSION # DD077239 EXPIRES December 28, 2005 BONDED THRU TROY FAIR INSURANCE, INC.
Commission Expires:

APPROVED AS TO FORM
AND LEGAL SUFFICIENCY
JMT 2/1/04
Commission Attorney

EXHIBIT "A"

LEGAL DESCRIPTION OF THE LEASED PREMISES.

This Instrument Prepared By and
Please Return To:
Elaine Vergara
American Government Services Corporation
3812 W. Linebaugh Avenue
Tampa, FL 33624
AGS # 12400

WARRANTY DEED
(STATUTORY FORM - SECTION 689.02, F.S.)

THIS INDENTURE, made this 25th day of September, A.D. 2003, between William Allen Pullum, Individually and as Co-Trustee of the E.H. Pullum Revocable Trust, Betty Jean Pullum, Individually and as Co-Trustee of the E.H. Pullum Revocable Trust, Bobby J. Parker, Bill E. Parker, Dale E. Rice, Sr., and LaRita Fern Parker Lowe, whose address is: 8494 Navarre Parkway, Navarre, FL 32566 (WAP & BJP), 1544 Texas Parkway, Crestview, FL 32536(DR), 8461 Loosa Drive, Crestview, FL 32539(BJP), 720 Adams Drive, Crestview, FL 32536(BEP), 6475 Garden City Road, Crestview, FL 32539(LFPL), grantor, and the BOARD OF TRUSTEES OF THE INTERNAL IMPROVEMENT TRUST FUND OF THE STATE OF FLORIDA, whose post office address is c/o Florida Department of Environmental Protection, Division of State Lands, 3900 Commonwealth Boulevard, Mail Station 115, Tallahassee, FL 32399-3000, grantee,

(Wherever used herein the terms "grantor" and "grantee" include all the parties to this instrument and their heirs, legal representatives, successors and assigns. "Grantor" and "grantee" are used for singular and plural, as the context requires and the use of any gender shall include all genders.)

WITNESSETH: That the said grantor, for and in consideration of the sum of Ten Dollars and other good and valuable considerations, to said grantor in hand paid by said grantee, the receipt whereof is hereby acknowledged, has granted, bargained and sold to the said grantee, and grantee's successors and assigns forever, the following described land situate, lying and being in Santa Rosa County, Florida, to-wit:

See Exhibit "A" attached hereto and by reference made a part hereof.

Property Appraiser's Parcel Identification Number: 31-1S-27-0000-00100-0000; 23-1S-27-0000-00100-0000; 07-1S-27-0000-00100-0000; and 06-1S-27-0000-00200-0000

This conveyance is subject to easements, restrictions, limitations, and conditions of record if any now exist, but any such interests that may have been terminated are not hereby re-imposed.

This property is not the homestead property of the grantor, nor contiguous to homestead property, as such homestead is defined under Florida law.

AND the said grantor does hereby fully warrant the title to said land, and will defend the same against the lawful claims of all persons whomsoever.

IN WITNESS WHEREOF the grantor has hereunto set grantor's hand and seal, the day and year first above written.

Signed, sealed and delivered in the presence of:

[Signature]
(Signature of First Witness)

John W. Brooks
(Printed, Typed or Stamped Name of First Witness)

[Signature]
(Signature of Second Witness)

Rebecca L. Price
(Printed, Typed or Stamped Name of Second Witness)

[Signature]

William Allen Pullum, Individually and as Co-Trustee of the E.H. Pullum Revocable Trust

STATE OF FLORIDA
COUNTY OF SANTA ROSA

The foregoing instrument was acknowledged before me this 25th day of Sept, 2003, by William Allen Pullum, Individually and as Co-Trustee of the E.H. Pullum Revocable Trust. Such person (Notary Public must check applicable box):

- is personally known to me.
- produced a driver license.
- produced _____ as identification.

(NOTARY PUBLIC SEAL)



[Signature]
Notary Public

(Printed, Typed or Stamped Name of Notary Public)

Commission No.: _____

My Commission Expires: _____

[Signature]
(Signature of First Witness)

John W. Brooks
(Printed, Typed or Stamped Name of First Witness)

[Signature]
(Signature of Second Witness)

Rebecca L. Price
(Printed, Typed or Stamped Name of Second Witness)

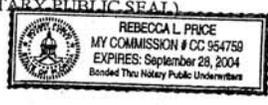
[Signature]
Betty Jean Pullum, Individually and as Co-Trustee of the E. H. Pullum Revocable Trust

STATE OF FLORIDA
COUNTY OF SANTA ROSA

The foregoing instrument was acknowledged before me this 25th day of Sept, 2003, by Betty Jean Pullum, Individually and as Co-Trustee of the E. H. Pullum Revocable Trust. Such person (Notary Public must check applicable box):

- is personally known to me.
- produced a driver license.
- produced _____ as identification.

(NOTARY PUBLIC SEAL)



[Signature]
Notary Public

(Printed, Typed or Stamped Name of Notary Public)

Commission No.: _____

My Commission Expires: _____

Dona L. Melis
(Signature of First Witness)

Bobby J. Parker
Bobby J. Parker

Dona L. Melis
(Printed, Typed or Stamped Name
of First Witness)

Sharon T. Hudgens
(Signature of Second Witness)

Sharon T. Hudgens
(Printed, Typed or Stamped Name
of Second Witness)

STATE OF Florida
COUNTY OF Alachua

The foregoing instrument was acknowledged before me this 25th day of September, 2003, by
Bobby J. Parker. Such person (Notary Public must check applicable box):

- is personally known to me.
- produced a driver license.
- produced _____ as identification.

(NOTARY PUBLIC SEAL)

Sharon T. Hudgens
Notary Public

Sharon T. Hudgens
(Printed, Typed or Stamped Name of Notary Public)

Commission No.: DD 046554

My Commission Expires: 9/4/05



Donna K. Medina
(Signature of First Witness)

Bill E. Parker
Bill E. Parker

Donna K. Medina
(Printed, Typed or Stamped Name
of First Witness)

Sharon T. Hudgens
(Signature of Second Witness)

Sharon T. Hudgens
(Printed, Typed or Stamped Name
of Second Witness)

STATE OF Florida
COUNTY OF Okaloosa

The foregoing instrument was acknowledged before me this 20th day of September, 2003, by **Bill E. Parker**. Such person (Notary Public must check applicable box):

- is personally known to me.
- produced a driver license.
- produced _____ as identification.

(NOTARY PUBLIC SEAL)



Sharon T. Hudgens
Notary Public

Sharon T. Hudgens
(Printed, Typed or Stamped Name of Notary Public)

Commission No.: DD 046554

My Commission Expires: 9/4/05

Dennis J. Medley
(Signature of First Witness)

Dale E. Rice, Sr.
Dale E. Rice, Sr. by Dale E. Rice, Jr., as his attorney-in-fact

Donna L. Medina
(Printed, Typed or Stamped Name of First Witness)

Sharon T. Hudgens
(Signature of Second Witness)

Sharon T. Hudgens
(Printed, Typed or Stamped Name of Second Witness)

STATE OF Florida
COUNTY OF Okaloosa

The foregoing instrument was acknowledged before me this 25th day of September, 2003, by Dale E. Rice, Sr. by Dale E. Rice, Jr., as his attorney-in-fact. Such person (Notary Public must check applicable box):

- is personally known to me.
- produced a driver license.
- produced _____ as identification.

(NOTARY PUBLIC SEAL)



Sharon T. Hudgens
Notary Public

Sharon T. Hudgens
(Printed, Typed or Stamped Name of Notary Public)

Commission No.: DD 046554

My Commission Expires: 9/4/05

Donna L. Medley
(Signature of First Witness)

LaRita Fern Parker Lowe
LaRita Fern Parker Lowe

Donna L. Medley
(Printed, Typed or Stamped Name
of First Witness)

Sharon T. Hudgens
(Signature of Second Witness)

Sharon T. Hudgens
(Printed, Typed or Stamped Name
of Second Witness)

STATE OF Florida
COUNTY OF Okaloosa

The foregoing instrument was acknowledged before me this 25th day of September, 2003, by
LaRita Fern Parker Lowe. Such person (Notary Public must check applicable box):

- is personally known to me.
- produced a driver license.
- produced _____ as identification.

(NOTARY PUBLIC SEAL)

Sharon T. Hudgens
Notary Public

Sharon T. Hudgens
(Printed, Typed or Stamped Name of Notary Public)



Commission No.: DD 046554

My Commission Expires: 9/4/05

EXHIBIT "A"

All of Section 6, Township 1 South, Range 27 West, Santa Rosa County, Florida except Lot 1 as shown on the General Land Office Plat of said Township 1 South Range 27 West approved in 1829, also described as all of Section 6, Township 1 South, Range 27 West, Santa Rosa County, Florida except Lots 1 and 2 as shown on the General Land Office Plat of the resurvey of the north tier of sections in said Township 1 South Range 27 West approved in 1853.

AND

Lots 1 and 2, Section 7, Township 1 South, Range 27 West, Santa Rosa County, Florida.

AND

Lots 1, 7, and 8, Section 23, Township 1 South, Range 27 West, Santa Rosa County, Florida.

AND

Section 31, Township 1 South, Range 27 West, Santa Rosa County, Florida, less and excepting therefrom Lot 1 of said Section 31.

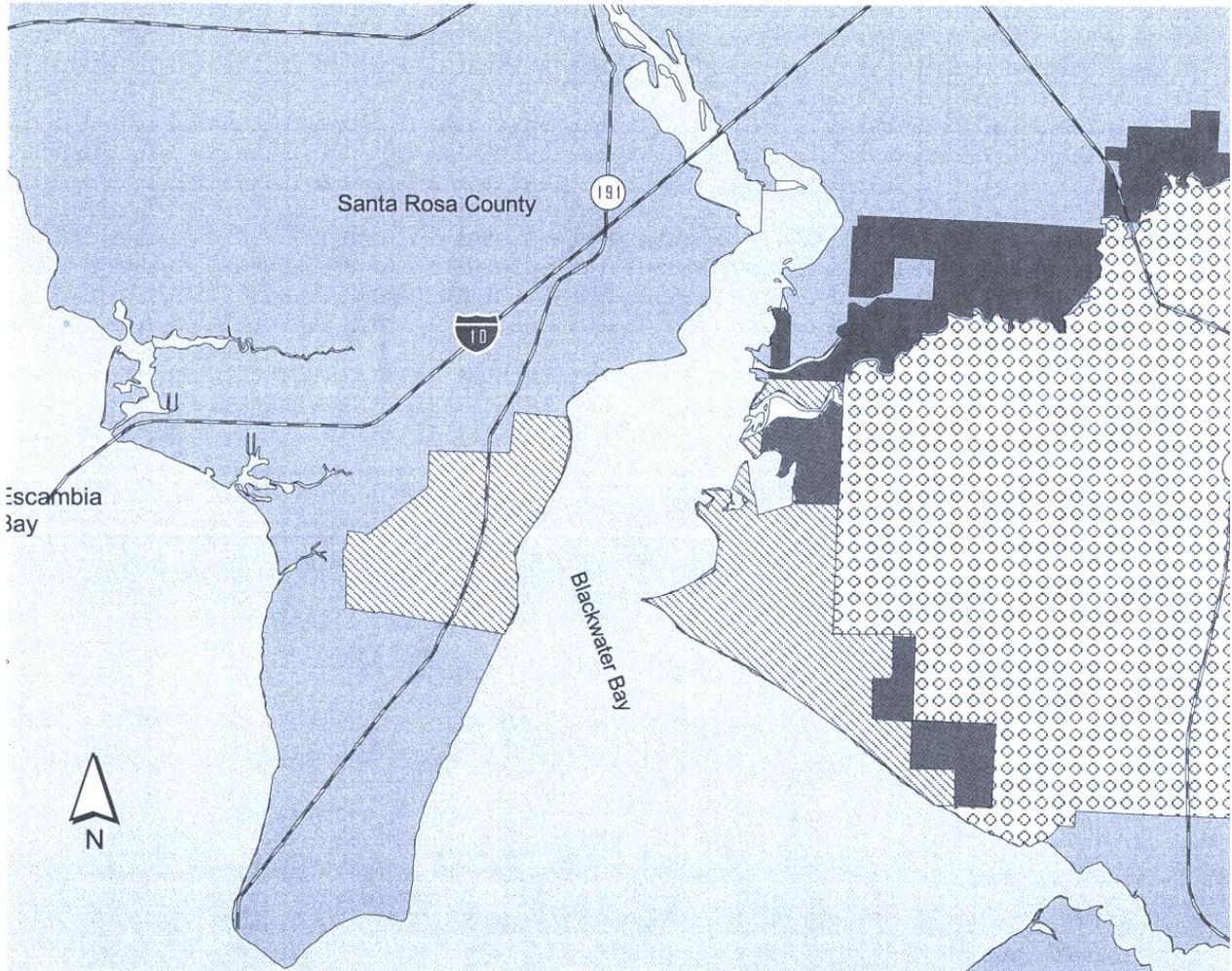
Escribano Point
Parcel 1 - Estate of E.H. Pullum; Parker, Rice; & Low
Page 1 of 1

BSM REVIEWED
By NC Date 3.31.23

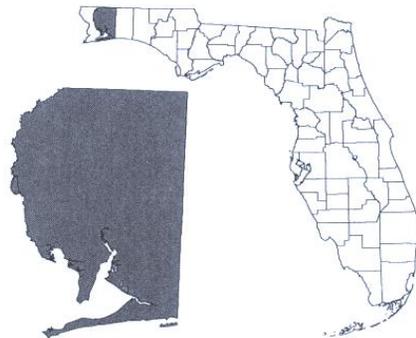
Page 20 of 20
Lease No. 4447

R07/29/02

Lease Number 4447
1,166.1 Acres, Escribano Point Florida Forever Project



-  Escribano Point, acquired
-  Escribano Point FF Project Boundary
-  Yellow River WMA
-  Eglin AFB WMA



Appendix B

MANAGEMENT ADVISORY GROUP MEETING RESULTS

PUBLIC HEARING REPORT

Escribano Point
Management Advisory Group (MAG)
Consensus Meeting Results

September 7, 2005 Milton, Florida

The intent of convening a consensus meeting is to involve a diverse group of stakeholders in assisting the Fish and Wildlife Conservation Commission (FWC) in development of a rational management concept for lands within the agency's managed area system. The FWC does this by asking spokespersons for these stakeholders to participate in a half-day meeting to provide ideas about how FWC-managed lands should be protected and managed.

The Escribano Point consensus meeting was held on the morning of September 7, 2005, at the Pensacola Junior College, Milton Campus, Milton, Florida. The ideas found below were provided by stakeholders for consideration in the 2005 – 2015 Conceptual Management Plan (CMP) for the Escribano Point, with priority determined by vote. These ideas represent a valuable source of information to be used by biologists, planners, administrators and others during the development of the CMP. Upon approval by FWC, the Acquisition and Restoration Council (ARC), and the Trustees of the Internal Improvement Trust Fund (Governor and Cabinet), the Escribano Point CMP will guide the activities of FWC personnel over the ten-year duration of the management plan, and will also help meet agency, state and federal planning requirements.

Numbers to the left of **bold-faced ideas** listed below represent the total number of votes, and the score of each idea. Rank is first determined by the number of votes (vote cards received for each idea), and then by score. Score is used to break ties when two or more ideas have the same number of votes. A lower score indicates higher importance because each voter's most important idea (recorded on card #1) received a score of 1, and their fifth most important idea (recorded on card #5) received a score of 5. Ideas not receiving any votes are listed, and were considered during the development of the CMP, but carry no judgment with regard to priority.

Statements in parentheses following the bold-faced ideas represent a synopsis of the clarifying discussion of ideas as transcribed and interpreted by the FWC recorder at the meeting. As indicated above, the ideas below are presented in priority order:

<u># of Votes</u>	<u>Score</u>	<u>Rank</u>	
[11]	[28]	1.	Develop and implement a low impact recreation plan (hiking, fishing, bird watching, primitive camping, and hunting); cooperate with adjacent land owners, and provide for highest level of resource protection. Provide low impact recreation and

coordinate with Florida Trail Association for trail development. Other low impact recreation activities would include bird watching, primitive camping (i.e., no electric sites). Also, steer away from OHV use because of erosion problems and sensitive habitats and species. Cooperate with other Agencies on recreation planning and public access. Over 90% of the WMA includes habitat for wetland dependent species. Give these habitats priority consideration for protection.

- | | | | |
|-----|------|----|--|
| [8] | [14] | 2. | <p>Restoration of natural processes (i.e., fire, hydrology). Hydrological restoration and smoke management are needed. Restore sheet and other natural water flow and habitats of wetland dependent species.</p> |
| [8] | [17] | 3. | <p>Develop a road plan that allows for vehicular access in specific areas; manage public access. Identify specific roads for vehicular access; post and number them as necessary for good enforcement of legal access. Manage and control public access. Public access through Eglin AFB has potential for conflict with the military mission. A good plan for access control on the County maintained road through Eglin AFB is needed. A permit is required from Eglin AFB to be on AFB property.</p> |
| [7] | [28] | 4. | <p>Cross boundary cooperation; identify and protect resources along boundaries; delineate and post boundaries. When ecosystems divide by geopolitical lines it's wise to cooperate. Demonstrate where boundaries are (i.e., post signs) to avoid incursions onto state lands. Avoid putting private equipment on state lands. Identify important resources along boundary.</p> |
| [5] | [13] | 5. | <p>Ensure management is compatible with military operations of Choctaw Air Field and Eglin AFB. Avoid interference with flight training at Choctaw Air Field. Lights and smoke interfere with flight patterns. Noise generated by air field is incompatible with some recreational uses.</p> |
| [5] | [16] | 6. | <p>Document threatened and endangered species; survey and monitor. FNAI is contracted</p> |

to survey for listed communities and listed species.

- [4] [10] 7. **Development consistent with Joint Land Use Study (JLUS).** There is a Joint Land Use Agreement between Santa Rosa County and the Department of Defense. JTL asked that activities (e.g., access, land use development, utilities) be consistent with JLUS. There are Department of Defense concerns about potential land uses.
- [4] [12] 8. **Cooperate with other agencies in development FWC management plan.** Coordinate among agency management plans to avoid confusion among cooperators and the public.
- [4] [14] 9. **Public and private access is needed by both land and water.** The landlocked WMA parcels need better access.
- [4] [16] 10. **Erosion control (roads, banks, gullies, beaches) using native vegetation and engineering.** Self explanatory.
- [3] [6] 11. **Utilities for residential development.** JTL will prepare permit applications for facilities. Proposed percolation ponds are permitted by Santa Rosa County. There are water lines on State Road 87. Proposed development would be least intrusive with a minimum footprint.
- [3] [11] 12. Two items of equal rank.
- A. Emphasize law enforcement (increase patrol and post regulations).** There are several law enforcement issues: non-alcohol rule, inadequate law enforcement presence, and uncertainty about regulations. Need to include law enforcement friendly recreation designs. Good road system is important for law enforcement.
- B. Develop cooperative multi-agency prescribed burning plan.** Prescribed burn plan should be done cooperatively. Involve Fire Steering Committee through the Gulf Coastal Plain

Ecosystem Partnership. Burning is difficult and may need to be done on weekends when Choctaw field is shut down.

- [3] [13] 14. **Define and Estimate Optimal Boundary.** Existing boundaries pose difficulties for resource management. Future land acquisition should purchase lands listed under the Florida Forever Program. Identify and maintain contact with landowners regarding prescribed burning and access requirements. The CMP should include a list of adjacent landowners and inholdings with names of contacts.
- [2] [6] 15. **Develop education and outreach programs.** Create visitor contact points (information resources: endangered species, habitat protection, invasive species, etc.) at low-impact recreation areas. Promote nature-based recreation.
- [1] [3] 16. Two items of equal rank.
- A. Forest restoration and management; develop a Timber Management Plan focusing on long rotation and uneven aged management.** Plan should address current forest resources, reforestation planning, natural regeneration areas, and natural or artificial reforestation (if needed).
- B. Protect and restore aquatic habitats.** Some aquatic and offshore habitats including seagrasses are in need of protection.
- [1] [4] 18. **Habitat management for upland and waterfowl species.** Create enhancement to habitat such as wood duck boxes. Consider proximity to airfields.
- [1] [5] 19. Three items of equal rank.
- A. Nuisance wildlife issues.** Greatest concerns are bird air strike hazard and proximity to airfield.

B. Rules and regulations for public utilization. Make rules and regulations more enforceable. There is confusion across boundaries because of different regulations among different law enforcement agencies (i.e., hours of operation). Post rules and regulations on roads. Eglin AFB requires permits and cooperation on enforcement of legal access.

C. Maintain and enhance wildlife connections and corridors. Movement of black bear, deer, and other wildlife are a concern. Interagency coordination can help establish and maintain corridors.

The following items received no votes. These ideas represent valuable input, and were considered in the development of the Escribano Point CMP, but carry no rank with regard to the priority perceptions of the MAG.

Eradicate Invasive Species. Invasive species are present on Escribano Point and should be dealt with appropriately.

Protection of Cultural Resources. Protection of cultural resources is a concern. With the fact that there is one known cultural site within the boundaries of Escribano Point and an additional 41 within a one mile buffer, it will be important to identify and protect these resources. Coordination with DHR will be necessary.

Monitor and Improve Water Quality. Self explanatory.

**Escribano Point Parcels of Yellow River WMA
MAG Meeting Participants**

Name

Affiliation

Active participants

David Creamer	Florida Division of Forestry
Dave Hemphill	BDI (JTL Escribano, LLC; adjacent land owner)
Deborah Holland	North West Florida Aquatic Preserve/ DEP
Marty Martin	NAS Base, Whiting Field
George L. Finch	Natural Resource Conservation Service- BWSD
Vernon Compton	The Nature Conservancy
Pat Bowman	Fish and Wildlife Commission
Steve Brown	Northwest Florida Water Management District
Bruce Hagedorn	Eglin AFB
Chris Verlinda	Santa Rosa Sea Grant Extension

Supportive participants

Bruce Greer	Fish and Wildlife Conservation Commission
David Capps	Fish and Wildlife Conservation Commission
Billy Sermons	Fish and Wildlife Conservation Commission
Fred Robinette	Fish and Wildlife Conservation Commission
Brucker Stensurd	JTL Escribano, LLC; adjacent land owner
Roy V. Andrews	Attorney, JTL Escribano LLC
Robert McDonald	FWC Consultant

Invited but unable to attend

Captain Brad Williams	Fish and Wildlife Conservation Commission
Mary Glowaki	Division of Historical Resources

John Burkhead

Carolyn Kindell

Gordon Goodin

Becky Faulkenberry

National Wild Turkey Federation

Florida Natural Areas Inventory

Santa Rosa County Commission

Santa Rosa County Planning Department

FWC Planning personnel

David Alden

Leo Minasian

Larame Ferry

Meeting facilitator

Recorder

Recorder

**PUBLIC HEARING REPORT
FOR
ESCRIBANO POINT PARCELS IN YELLOW RIVER WILDLIFE MANAGEMENT
AREA
CONCEPTUAL MANAGEMENT PLAN**

**HELD BY THE
ESCRIBANO POINT MANAGEMENT ADVISORY GROUP**

(September 29, 2005 - MILTON, FLORIDA)

Mr. Vernon Compton, representing the Escribano Point WMA Management Advisory Group, opened the public hearing at 7:00 p.m., and briefly described the stakeholder meeting of the Escribano Point WMA Management Advisory Group. He informed the public that the Escribano Point Management Advisory Group (MAG), consisting of 11 stakeholder representatives, had met with the Florida Fish and Wildlife Conservation Commission (FWC) planners and biologists in Milton on September 7, 2005. He called attention to their report representing results of that meeting, and which was made available at the hearing. It was essentially a set of suggestions, in priority order, designed to guide FWC in its deliberations as it formulates agency goals, objectives, problem statements and solution strategies for the ten-year Escribano Point Conceptual Management Plan (CMP). Following approval by the Governor and Cabinet, the plan will be the official management guidance document for the next 10 years. Following the Advisory Group Meeting, FWC personnel met and developed the elements of their draft plan. Copies of this draft plan were also available at the door. Mr. Compton said that hearing that evening was an opportunity for the public at large to hear, understand, and comment on the elements of the management plan, and thus provide further guidance to FWC in its planning efforts. The meeting was hosted by the Escribano Point MAG, but the other group members, some of whom at the public hearing, were to rely on Leo Minasian, Pat Bowman, and others from the FWC to present the plan elements and the process.

Mr. Compton then thanked the audience for participating, for their interest, attendance, and taking their personal time to be involved in the planning process. He turned the proceedings over to Mr. Leo Minasian, Biologist for the FWC. The public hearing had been advertised in compliance with Chapter 259.032 (10), F.S. Mr. Minasian thanked the Management Advisory Group, and reviewed the public hearing agenda for those in attendance. He introduced FWC, Division of Habitat and Species Conservation staff present at the public hearing, including staff responsible for land management in the Northwest Region of Florida, including the Escribano Point parcels, and land acquisition and conservation planning staff who coordinate preparation of the conceptual management plan. Three members of the MAG and nine employees of the FWC were among the 28 people present at the public hearing.

Mr. Minasian asked that all who wished to speak about the proposed management plan fill out speaker cards which were available throughout the public hearing. Mr. Minasian then provided a

brief presentation of the process by which the FWC develops CMPs, and how the plans are reviewed and approved by other entities in accordance with statutory and administrative procedures for state-owned lands.

Mr. Minasian then introduced Ms. Pat Bowman, FWC Area Biologist for the Escribano Point parcels in Yellow River WMA (EPYRWMA), who presented items expressing the management intent of the FWC for the new WMA lands. She stated the eight major categories of management intent, which were: vegetation, hydrology, prescribed burning, forest resource management, wildlife, fisheries, cultural resources and public use. She then gave a detailed presentation of the goals and objectives, and problems and strategies proposed for the EPYRWMA. A paper copy of the management intent, goals and objectives, problems and strategies, was distributed to all in attendance at the beginning of the public hearing. (These are appended to this public hearing report.)

Ms. Bowman concluded her presentation, and Mr. Minasian then introduced the question and answer period of the public hearing, and asked if anyone had questions about the presentation. Questions asked by participants were answered by FWC staff as follows:

Question: Does page 9 of the handout (draft management activities and intent, goals and objectives, and problems and strategies) concern access just to the FWC-managed lands, or does it concern access to private lands as well?

Answer: The draft management plan for Escribano Point only addresses the FWC-managed parcels. Access to private lands is a separate process.

Question: What does DHR stand for?

Answer: The Division of Historical Resources in the Department of State.

Question: I see the term “interpretation” in the handout several times. Is there actually an education component that is defined for this management plan?

Answer: The FWC will be working with the Nature-based Recreation Office to prepare some interpretive materials. At this point in time there is a limited opportunity to do environmental education, but we intend to work with the Northwest Florida Water Management District (NFWMD) on the entire area to get an order for the wildlife management area accomplished, and provide some interpretive materials, also to address fishery resources. FWC will consult with the DHR. There is one shell midden on the area; it is possible that there are others also.

Question: Is the reason for that (lack of education programs) because of money?

Answer: The reason is probably not money. The location of these parcels makes them harder to get to for education purposes and classes. However, the NFWMD-managed area at Grassy Point may provide an opportunity in cooperation with the water management district. There are already some signs there, and that is possibly an educational point of contact for working with

the NFWMD on interpretive materials and possibly educational programs for that area.

Question: Will there be a boat launch available for public use? There was some discussion of a boat launch, and there currently is not one on that part of the Bay. Are there any plans for a boat launch?

Answer: Grassy Point does provide a boat launch. That is something that will be available in the future, but as of now there are no specifics. This management plan addresses the three parcels owned by the Board of Trustees (State of Florida) and leased to the FWC. The Grassy Point parcel just mentioned is owned by the water management district. There is really no access to the FWC-managed northern parcel, and very limited road access to the other two FWC-managed parcels. (There is a place on the shore of the NFWMD-managed Grassy Point parcel where boats are launched onto Blackwater Bay, but it is not a developed facility.)

Question: What parcels are you talking about?

Answer: On the map, the three parcels outlined in yellow are leased to the FWC. The parcels extending up the Yellow River are owned by the NFWMD. The entire area (surrounding the FWC-managed lands) has been approved for purchase by the State, of which the three parcels outlined in yellow have been purchased. They are state lands. The parcel outlined in purple was purchased by the NFWMD. This is water management district lands, which are also public lands. The NFWMD does its own management plan, and manages the entire river corridor of the Yellow River. There are other parcels on the map which have not yet been purchased. (The south shore of the Yellow River, however, is part of Eglin AFB.)

Question: Are the parcels owned by the JTL Corporation also on the map you were pointing to?

Answer: That land is located as indicated on the map next to the publicly owned parcels.

Question: As regards Objective 6 [Enforce existing regulations to proactively address illegal access and use of non-authorized vehicles that degrade sensitive habitats and species (ongoing).], looking at your budget, what are you going to get for \$2,508, in terms of law enforcement?

Answer: Some of that money overlaps with existing law enforcement duties.

Question: Do you know where that number just cited came from in the Florida Forever Five-year Plan?

Answer: That number comes from the management prospectus, and was developed when the land (Escribano Point) acquisition project was first reviewed and assessed. That number is from a draft budget, not the actual budget. There may be more money for that at this point in time. As the draft management plan goes up through the agency, there will be more attention given to the budget. That number came from a formula that was used at that point in time for calculation (when the Escribano Point Florida Forever Project was prepared). It may be changed before it goes before the Acquisition and Restoration Council and the Governor and Cabinet. It is a very

preliminary estimate that was made before the land was purchased by the State. There is a formula where a figure is calculated based on number of acres.

Question: Is the Navy going to be conducting large exercises as have been talked about? Is that going to affect any of this area?

Answer: The U.S. Navy conducts exercises with training aircraft that will be going out after they finish their training to work off of the aircraft carriers. If a pilot is going to land on the carriers, he must complete a certain number of landings in the daytime on a small, postage-stamp box. He must do some landings at night. They will continue to be operating there with that training. The Navy just completed such training about a month ago, and there will be more in a couple of months. As in the Joint Land Use Study that Santa Rosa County conducted and implemented, that's what they're there for. The commander at Eglin AFB said that U.S. Army Special Forces will be moving in from Fort Bragg, about 2,700 personnel that will be based at the main camp. They use the Yellow River for their training. In addition, the U. S. Marine training is coming in from California, and they will be doing tank-amphibious landings with tanks going up over the hill on the Eglin reservation. It will become a very noisy, busy place. It's going to be around the clock. Those who have development interests in this area need to listen to the committee giving a presentation on what happens (the training exercises). The Grassy Point, Escribano Point area will not be quiet as what we used to know; it is going to change overnight. There's going to be a ten-year ramp-up; it's going to start next year. *[This answer provided by Management Advisory Group Members Marty Martin (U.S. Navy) and Gordon Goodin (Santa Rosa County.)]*

The question and answer period was concluded, and the hearing was opened to public testimony. Mr. Minasian asked that speaker cards be turned in so as to correctly identify those wishing to speak.

Four participants provided testimony to the MAG and FWC.

Ms. Diane Mancuso said that she is a two-year resident at Grassy Point. I realize that this is not a Grassy Point meeting; this is an Escribano meeting. If you compare this to what happened with Hurricane Rita, and looking at what happened with Katrina, and taking notes, she said she would like to see the FWC look at Grassy Point, and learn from past mistakes. We're having a hard time backing up in Grassy Point with some of the errors we've made out there. If you set things right when you first walk in, it will be a lot easier than trying to re-train people. What we would like to see out at the Point is families, the scouts and the schools coming out. What we have right now are drinking parties. There are certain people that like to have drinking parties. Law enforcement needs to patrol the area. I learned to swim in these waters, and have been using the area since I was a child. The crowds that use the area on the weekends are a rough crowd. There's been some violence out there; one homeowner ended up in the hospital. He has had numerous surgeries. Some kids use the property for fishing. I have nothing against fishing, but shortly thereafter there was a pot party outside of my house. I am concerned that law enforcement is not very frequent. The roads need to be maintained so that there will be patrols. I've been told by law enforcement officers that they periodically check the area.

I would like to see on the FWC-managed area a no-alcohol rule. I just do not see a classroom coming out on a maintained road, and looking at beautiful nature, while others are out there with beer cans lying all around. If you don't set up some kind of a law, that's what is going to happen. The law should be enforceable by law enforcement. There is no law against them being out there to do things. That's what they do. Law enforcement comes in, if they come in. They (law enforcement) can't really bully these guys, because they are part of the local community. What you described (in the presentation) sounds wonderful: the paddling, picnicking, nature-based recreation. You just need to keep in mind that if you don't do something about the alcohol, you're going to get a certain type of people out there, and I don't think that it's the people we can stand to be without. As for hunting, I drive down that road with camouflage guys. I'm not talking about the military. At one point I honked my horn to tell them to get off the road. When I walk in the morning with my dog, I wear orange. I was told by them that they have a right to shoot their gun down the middle of the road. You talk about the confusion and conflict between JTL, the military and you. There's no sign that says what they can and cannot do out there. There's nothing telling them what they can and cannot do. I would like to see the state acquire all of that property. It would be a wonderful place for everyone to come and visit. There's not a boat ramp out there. There is a beach next to my house that is being used, but there is not an assigned launch, and there needs to be one. I would like to see the FWC come out to Grassy Point and establish some control over the area.

Mr. Mike Garvin said that he was Ms. Diane Mancuso's neighbor at Grassy Point, and that he has the same concerns. We have so much trouble with drinking problems. There has been trouble with people fighting and drinking. Since Grassy Point has been open to the public, I've been burglarized at my place of residence, in two years more than the five years total before this. Since this place has opened up, we've run into more drinking problems. I have a friend that was a hit-and-run (victim) by a drunk boy. He said that he agreed with Ms. Mancuso that something needs to be done to stop this before it gets started, or you're never going to get the good public to come down here.

Ms. Laura Fulton said that she appreciated everyone's efforts at the public hearing. She said she belongs to a paddling club, and has paddled the area, and goes into Eglin AFB. Having rules and law certainly leads to a fun time. There are people we run into here who are kind and courteous. There should be rules of sorts made more clear to the public.

Mr. Mack Thetford said that he would provide his comments in writing.

Ms. Patricia D'Asaro, representing the Milton Garden Club, said that she appreciated all of the work being done on the area. There should be an identification process, because there has been an Old West philosophy that has caused difficulties. Thousands of people come to Santa Rosa County to live for these wonderful natural resources, and it's a job to protect them from themselves. The key issue is to make people take ownership, to care about the environment, do the right thing. I spoke about the educational aspects. We need to teach people about littering, about recycling, and also the schools. Some of the students at the high school wrote a play about it. There are some very clever ideas for deaf and dumb people. No one tells people they shouldn't be doing that. You've got to tell people, because people are ignorant, and ignorance is

not bliss anymore. If you cannot take classrooms of kids to the site, how about taking flowers and things from the site to the schools? We need to reach out to classrooms and use technology that provides a wonderful opportunity. I'm still learning. The Milton Garden Club would be interested in this, and working with the forestry people. There are lots of places to go and things to do.

Mr. Howard Jones, representing the FWC Division of Law Enforcement, addressed some concerns of citizens at Escribano Point, including the Grassy Point area. We find that it is ten-to-twenty percent of the bad folks that get all of the attention, and make the situation bad for everybody else. That has been the case at Grassy Point this past year. It is not all the users; but the users that are the trouble makers are the ones that draw the attention. I apologize for being under the impression that this was Grassy Point, as well as these other parcels. It is the same situation for the hunters. The majority of the hunters are out there helping us. They are our eyes and ears in the field. They are the ones that want to support us. The one who told you he could shoot down the road any time he wanted to was in error. That is clearly a criminal offense. We will be happy to arrest that man. Two things that I think we should have in mind on Escribano and Grassy Point. I discussed this issue with Michael Andrew and Captain Brad Williams today. We discussed these issues with the problems that we've been having at Grassy Point this past year. Two suggestions that can be made are to: eliminate permanent camping. In other words, we want to see the public have access and use these public lands. We support that. We want to have tools with which we can get rid of the trouble makers. One is the matter of permanent camps in the state-owned area. That is one of our big problems. You can limit that, as most campgrounds do, by limiting stays, whether it's five days or seven days, or two weeks. Eliminate permanent stays there. That is one way that if someone has been there longer than they need to be, they need to be on the road.

The other (suggestion) is to outlaw possession and use of alcohol in the campgrounds. The trouble makers, if they can not have their beer, they are not going to stay. I say that because that is an enforcement tool. You do not actually have to sit in the bushes and actually catch them in violation. You can walk into the camp, and if they have beer, they are in violation, and we will cite them. I don not even think we can take their booze. I don not think I can say you are in violation if you have ever had a drink, but we need a tool to get rid of these people that are causing trouble. That is the first thing. It has been that way in other areas. I understand that Eglin is having a lot of problems. They made a rule against booze, and the trouble makers left, because the booze is their first priority. With that in place, law enforcement would have a tool to use in these situations. Proposals need to be taken before the Commission, and actual rules enacted; because most of the time, it gives us the authority to make an arrest. There has to be a law on the books. Rather than going to the Legislature, going to the Commission we have the option of the Florida Administrative Codes which the Commission can pass. It is a very simple matter to get these and similar rules on the books for this management area. If you look through all the wildlife management areas in Florida, you have an overview of general regulations that apply to them all. Each wildlife management area has its own set of individual rules. You can use all of these others. I have a book full of them right here that you can use to set a guideline in developing rules or administrative codes that have the effect of law, that if enacted will give us the tools that we need to take care of some of these problems. There have been other arrests out

there, someone arrested DUI, and other arrests out there this summer that you don't hear about. These rules that we are proposing will give us the additional tools that we need to make more of a difference for the public there.

Mr. David Alden of the FWC said that the management plan that FWC is drafting for the area does not give FWC the authority to set regulations or codes that you have alluded to. However, what we need now is a proposal to eliminate alcohol. It is already in the works. I also encourage you to use the public input forms that we have here today. It is a direct route to public input for regulations development for the area. Every other year, the area regulations are reviewed and the FWC Commissioners approve rules. For many of the issues and testimony that I have heard, you can fill out these public input forms, and mail them in.

Mr. Minasian said that if participants at the public hearing wanted to submit comments in writing, if those comments address the management plan, and the goals and objectives: how the area is managed, you can send them in writing to the FWC (Acquisition and Conservation Planning group). We will include them as if they are testimony for the public hearing.

Mr. Minasian asked if there was anyone who wished to speak who had not spoken. No other participants wished to speak. He thanked all those in attendance for their participation and support of FWC programs to conserve Florida's fish and wildlife resources. The public hearing was ended at 8:13 p.m.

**ESCRIBANO POINT
CONCEPTUAL MANAGEMENT PLAN
2006 – 2016**

(DRAFT; REVISED September 23, 2005)

MANAGEMENT ACTIVITIES AND INTENT

In general, management intent on FWC-managed lands at Escribano Point (EP) is to conserve, protect, and restore natural communities, to enhance water quality by restoring natural hydroperiods, to promote a diversity of wildlife habitats, including restoration of disturbed areas to native vegetative communities, and to provide quality natural-resource-based recreational opportunities.

Vegetation

FWC intends to contract through FNAI to conduct surveys of current vegetative communities and historic vegetation communities on EP. Information regarding the probable historic and current coverage of vegetative communities is needed to guide and prioritize restoration and management efforts on the area.

FWC has adopted an objective-based approach to habitat management on Trustees-owned lands where FWC is designated lead manager. This approach includes delineation of management units, determination of management objectives for those units, and regular plant community monitoring. The first step in this process is to prepare plant community

type maps for each managed area. Plant communities are type-mapped in accordance with FNAI classifications. Type-mapping is accomplished by means of contracted services, in accordance with a methodology developed jointly by FNAI and FWC.

Concurrent with managed area type-mapping FWC staff develops standard operating procedures, describing methodologies for random selection of sampling points, for determining sampling intensity, and for describing sampling methodologies for attributes associated with area management objectives.

After an area has been type-mapped, management units are delineated. Management unit delineation takes into account plant community type, existing and proposed infrastructure, and other management considerations. Habitat management objectives are developed for each management unit. Management units with similar characteristics may have the same management objectives. Management objectives are associated with one or more plant community attributes and their value ranges. These objectives are aimed at achieving preferred habitat conditions for specified plant or animal species.

Plant community monitoring involves sampling for variables associated with particular management objectives on an area. Initial sampling provides FWC staff with baseline data indicating the vegetative condition specified in the management objective. The method for post-treatment sampling will depend upon the nature of the variables specified by the management objective. For example, a variable such as basal area might not require as frequent sampling as mid-story height or species richness. Plant community sampling is done in accordance with methods outlined in the Terrestrial Habitat Conservation and Restoration Standard Operating Procedures Manual.

On EP, FWC will focus on managing for native habitat diversity, emphasizing maintenance of high-quality natural communities, and restoration of disturbed areas. Restoration may be achieved on disturbed areas by restoring historic hydrological conditions, re-introduction of fire, and/or use of forest management techniques, including mechanical and chemical treatments. Retention of the native old growth component of forests remains an important consideration. EP has high-quality native communities including Bay Swamp (531 acres), Mixed Wetland Forest (263 acres), Pinelands (136 acres), Freshwater Marsh and Wet Prairie (103 acres), Hardwood Swamp (77 acres), Sandhill (36 acres), Mixed Pine-hardwood Forest (8 acres), Hardwood Hammocks and Forest (5 acres), and Shrub and Brushland (3 acres) that FWC will continue to manage and protect.

The state endangered white-topped pitcher plant is known to occur on EP. Furthermore, it is possible that several other listed plant species may exist on EP, as they are known to occur in close proximity to the area. These include beaked spikerush, Curtiss' sandgrass, hairy wild indigo, hummingbird flower, pine-woods bluestem, and spoon-leaved sundew.

Bay swamps, freshwater marshes and tidal marshes are managed for long-term maintenance and conservation, including restoration where applicable. By maintaining and restoring historic water flows to creeks, drains, and wetlands on the area, fresh water flow will increase downstream and filter into the tidal marshes. The fresh, brackish, and saltwater marshes occurring on and in proximity to EP, are known to be very productive, and provide vital habitats for a variety of fish, invertebrate, and wildlife species. Enhancing and protecting the integrity of the swamps and marshes will help assure that these natural systems will continue to provide a source of food and nutrients, faunal habitats, water purification, storm buffers, and shoreline stabilization.

Some of the land that has been acquired has a history of silvicultural operations. These operations have included development of ditches, construction of a road network, and the suppression of fire. It is the intent of FWC to restore these areas to the original vegetative composition, habitat structure, species distribution, and habitat functions that existed prior to ground disturbance activities and silvicultural treatments. This will require restoration of normal hydroperiods, replanting of vegetation suitable to these areas, and the reintroduction of a prescribed burning regime that mimics natural fire events. Some of the restoration techniques listed above may be necessary, but the primary management tool will be to manage the mid- and understory vegetation through an active burning program.

The best method or combination of techniques will be applied on a landscape basis to manage the native plant communities, including rare and listed species. Restoration of the native ground cover on disturbed sites may be accomplished by direct seeding, restoring the historic hydrological conditions (sheet flow), establishing an effective prescribed fire management program with an emphasis on growing season burns, and the use of forest management techniques such as timber thinning.

Wildlife

Natural communities on the EP support numerous native wildlife species. Species associated with the area's coastal Marshlands include rails, saltmarsh and seaside sparrows, herons, egrets, eagles, and osprey. The older growth longleaf and slash pines have potential foraging habitat for red-cockaded woodpecker. Sandhill habitat is likely to support gopher tortoise and gopher frog. The wetlands have potential habitat for eastern tiger salamander, flatwoods salamander, and gopher frog. The imperiled bog frog has been observed to occur in adjacent wetlands of Eglin AFB, and may also occur on EP. Wetland and upland areas provide habitat for Florida black bear. Portions of EP (647 acres) have been designated as a Strategic Habitat Conservation Area for Florida black bear.

A significant need on EP is the collection and updating of qualitative and quantitative data on wildlife populations. FWC will update inventories for certain species, with emphasis on endangered and threatened species. Monitoring of wildlife species continues as an ongoing effort for personnel on the area. Surveys of rare and listed wildlife species will include flatwoods salamander, Florida black bear, red-cockaded woodpecker, bald eagle/osprey nests, and wading bird rookeries. Through aerial surveys, numerous listed wading birds have been observed nesting in the vicinity to EP. These include snowy egret (SSC), little blue heron (SSC), white ibis (SSC).

Listed animal species and their habitats are protected and restored by following approved Federal and State recovery plans, guidelines and other scientific recommendations. Land management activities including mechanical soil disturbance, prescribed burning, and timber stand improvements (thinnings) take into account rare species requirements, habitat needs and the potential for negative impacts from recreational activity or habitat management programs. In particular, prescribed burning precautions for bald eagle and osprey nesting trees and territories are addressed in the Prescribed Fire Plan for EP.

Hunting is a recreational activity available on EP, and FWC intends to manage game populations on a sustained-yield basis to assure healthy game populations. Continued monitoring of game species abundance will be accomplished through on-going game species surveys.

The feral hog is found on EP, but is not a native species to Florida. This exotic species is

controlled on the area by providing a variety of public hunting opportunities. Impacts associated with exotic species populations, such as feral hogs, will continue to be monitored.

Fisheries

Both sport and commercial fishing activities are prevalent in East Bay and Catfish Basin. Many species of native game fish are taken, with catfish, black bass, and bream being the most popular freshwater species, and red drum (redfish), spotted sea trout, flounder, striped bass, and sheepshead being popular saltwater species. Some commercial fishing and crabbing occur, but no estimates are available for the extent of this activity. Fishing on EP will be allowed under the same rules and regulations as those on other state areas. FNAI lists the area as priority habitat for Gulf sturgeon. This species is commonly found in the Yellow River.

Public Use and Recreation

Management of fish and wildlife resources on the area is designed to provide opportunities for natural resource-based recreation. In addition to traditional hunting and fishing opportunities, public uses on EP may include wildlife viewing, picnicking, photography, paddling, as well as other low-impact nature-based activities consistent with the approach outlined by FWC's Office of Recreational Services (FWC-ORS). To facilitate public use, FWC will establish and maintain a conservative network of roads designated for use by approved motorized vehicles. However, the use of non-motorized vehicles and hiking will be encouraged.

Cultural Resources

One site (SR00760; prehistoric shell midden) of cultural significance is known to occur on EP, with an additional 41 sites known to occur within a one mile buffer of the area; other cultural sites may exist on EP. FWC will continue to coordinate with the Florida Department of State's Division of Historical Resources (DHR) to identify, monitor, interpret, and protect cultural resources on the area.

Hydrology

In cooperation with DEP and the NFWFMD, natural water regimes will be re-established to the extent practical. This is consistent with the primary purpose for the acquisition of the land and relates directly to the water quantity and quality aspects of the ecosystem. A hydrological assessment and restoration plan will be developed to provide a comprehensive approach to habitat restoration and management of the area. Estuarine waters of Blackwater Bay and East Bay adjacent to EP are Class II, subject to approval by the State for shellfish harvesting.

Forest Resource Management

Pursuant to objective-based vegetative management goals, FWC will continue to manage timber resources for wildlife benefits and community restoration, including the use of timber harvesting and reforestation. Reforestation is occurring naturally on some sites. The primary management technique for encouraging reforestation is protection of young trees and seedlings on these sites from fire or other damage. However, planting trees on selected sites is used to increase the rate of reforestation and to ensure diversity. Snags are protected to benefit cavity-nesting species.

Timber resources include areas of longleaf and slash pine. Thinning of the forest overstory, hydrological restoration and reintroduction of prescribed burning are the most important factors in re-establishment of vegetative communities and enhancing wildlife habitats in these areas. Degraded or disturbed forested wetlands will be reforested with native species as necessary and appropriate.

Prescribed Burning

Periodic spring and summer fires occurred in fire-adapted communities under natural conditions. Plant species composition reflects the frequency and intensity of these fires. In the absence of fire, former longleaf sites follow a successional pattern through mixed pine-hardwood forests to a hardwood community. While the plant species involved may differ slightly on poorer soils of the slash pine flatwoods the dominant role of fire in controlling hardwoods is equally important in either vegetative community.

Timber removal, drainage, and the subsequent neglect of the area inhibit a more "natural" fire management strategy due to the combined effects of a reduced availability of fuel, and ground cover plant species composition. Site-specific combinations of prescribed fire, mechanical and chemical vegetation control, and reforestation are necessary to restore the naturally occurring plant community.

FWC will implement a prescribed burning program on EP. FWC employs a fire management regime to increase both species and habitat diversity. Pursuant to vegetative management objectives, different burning intervals, different intensities (determined by firing methods), and seasonal timing of prescribed burns (dormant vs. growing season) create habitat diversity and a mosaic of vegetation patterns. This mosaic is designed to have both frequently burned and fire shadow aspects.

On some areas, prescribed burning is limited by the buildup of midstory fuels and a lack of understory fuels in the areas invaded by brush. This habitat condition is distinctly adverse for most wildlife species. Mechanical control of brush on upland sites by roller chopping and mowing can reduce shading and encourage the grasses and forbs that are necessary to propagate prescribed fire. Herbicide applications may be used where appropriate.

Single drum (with standard, not offset blades), one-pass roller chopping can be a valuable management tool, enabling the use of prescribed fires in areas heavily invaded by dense woody vegetation. However, roller chopping may damage the herbaceous ground cover, especially wiregrass; therefore, its application will be limited to situations where burning can only be accomplished by first reducing woody vegetation by mechanical means.

Whenever possible, existing firebreaks such as roads and trails, as well as natural breaks such as creeks and wetlands, will be used to define burning compartments. Disk harrows, mowing, and foam lines will be used as necessary to minimize disturbance and damage created by fire plows.

Mechanical soil disturbance in sensitive habitats, such as wet prairies, and ecotones between uplands and wetlands, will be prohibited (with the possible exception of wildfire suppression) in order to protect rare species that often occur in those habitats. Additionally, fires will be allowed to burn into the edges of cypress swamps and other wetlands in order to maintain these ecotones. Silvicultural site preparation (roller chopping), OHV traffic, and creation of firebreaks are avoided when possible in these habitats.

RESOURCE MANAGEMENT GOALS AND OBJECTIVES

The following goals and objectives have been developed specifically for Escribano Point. They represent ideas of FWC personnel in charge of managing and protecting the area, as well as those of cooperative managers, user groups, and other stakeholders from outside FWC. The agency further believes them to be consistent with the various forms of guidance provided to managers. Target dates for completion of objectives represent the end of the calendar year and collectively provide a priority schedule for accomplishing management actions on the area, as required by Florida Statutes. Long-term, annually reoccurring objectives are referred to as "Ongoing." These objectives are presented first since they provide a continual and essential basis for the management program of the area.

Goal 1: Enhance, maintain, and restore the diversity and integrity of native natural communities.

Objective 1: Utilizing the EP prescribed fire plan, employ a diverse fire regime designed to achieve a desired future condition (as determined by objective-based vegetative management [OBVM] objectives) on fire-dependent plant communities including salt and freshwater marshes **(ongoing)**.

Objective 2: Protect and conserve wetlands through hydrological restoration, appropriate fire management, and management for old-growth forest conditions **(ongoing)**.

Objective 3: Emphasize acquisition of adjacent conservation lands to enhance and protect natural resource integrity **(ongoing)**.

Objective 4: Continue to collaborate, coordinate, and cooperate with the Gulf Coastal Plain Ecosystem Partnership, Eglin AFB, US Navy, JTL Escribano LLC, NFWFMD, Division of Forestry, DEP- CAMA, as well as other multi-agency committees and groups involved in regional natural resource management **(ongoing)**.

Objective 5: Conserve listed animal species and their habitats, including isolated wetlands, by following approved Federal and State recovery plans, guidelines, and other scientific recommendations **(ongoing)**.

Objective 6: Enforce existing regulations to proactively address illegal access and use of non-authorized vehicles that degrade sensitive habitats and species **(ongoing)**.

Objective 7: To help limit fragmentation, reestablish connectivity of natural communities through hydrological restoration and the reestablishment of fire regimes that mimic natural conditions, and minimize artificial barriers such as roads, ditches, and firebreaks **(ongoing)**.

Objective 8: Contract with Florida Natural Areas Inventory (FNAI) to identify historic and current vegetative community types pursuant to objective-based vegetation management **by 2008**.

Objective 9: Contract for a systematic survey of invasive exotic plant species, such as cogongrass and Japanese climbing fern **by 2008**.

Objective 10: Contract for a hydrological assessment and restoration plan **by 2009**.

Objective 11: Contract for a systematic survey of rare and endangered plant species **by 2009**.

Objective 12: Develop quantifiable OBVM objectives **by 2009**.

Objective 13: Seek funding through the North Florida Upland Invasive Plant Council, or other sources, for invasive exotic plant control **by 2009**.

Objective 14: Using the Timber Assessment developed by DOF, implement management practices consistent with OBVM objectives **by 2010**.

Objective 15: To protect water resources, use the results of the hydrological assessment and restoration plan to initiate hydrological restoration by maintaining, improving or installing water control structures (i.e., culverts, hardened low water crossings, erosion control, soil stabilization, etc.) at appropriate locations **by 2012**.

Goal 2: Ensure FWC management activities are compatible with military operations of Choctaw Air Field and Eglin AFB.

Objective 1: Continue to collaborate, coordinate, and cooperate with the Gulf Coastal Plain Ecosystem Partnership, Eglin AFB, US Navy, JTL Escribano LLC, NFWFMD, Division of Forestry, DEP- CAMA, as well as other multi-agency committees and groups involved in regional natural resource management **(ongoing)**.

Objective 2: Coordinate with officials from the U.S. Navy and Eglin AFB to ensure that prescribed burning management activities (as described in the prescribed burning plan) do not interfere with the operation of Choctaw Air Field **(ongoing)**.

Goal 3: Address resource information gaps by conducting surveys and inventories.

Objective 1: Periodically update faunal inventories, emphasizing rare and listed wildlife species, including wading bird rookeries, bald eagle/osprey nests, bog frog, gopher tortoise, and flatwoods salamander **(ongoing)**.

Objective 2: Continue to collaborate, coordinate, and cooperate in the sharing and dissemination of natural resource information with the Gulf Coastal Plain Ecosystem Partnership, Eglin AFB, US Navy, JTL Escribano LLC, NFWFMD, Division of Forestry, DEP- CAMA, as well as other multi-agency committees and groups involved in regional natural resource management **(ongoing)**.

Objective 3: Conduct opportunistic and systematic surveys of reptile and amphibian species **(ongoing)**.

Objective 4: Contract with FNAI to identify historic and current vegetative community types pursuant to objective-based vegetation management **by 2008**.

Objective 5: Contract for a systematic survey of invasive exotic plant species, such as cogongrass and climbing ferns **by 2008**.

Objective 6: Consult with Division of Historical Resources or others to determine the need for a cultural resource assessment **by 2008**.

Objective 7: Contract for a systematic survey of rare and endangered plant species **by 2009**.

Goal 4: Provide nature-based recreation and educational opportunities.

Objective 1: Consult and cooperate with adjacent landowners including Eglin AFB, NFWFMD, and JTL Escribano LLC to assure adequate access to public recreation opportunities **(ongoing)**.

Objective 2: Continue to collaborate, coordinate, and cooperate in the design and scheduling of nature-based recreational opportunities with the Gulf Coastal Plain Ecosystem Partnership, Eglin AFB, US Navy, JTL Escribano LLC, NFWFMD, Division of Forestry, DEP-CAMA, as well as other multi-agency committees and groups involved in regional natural resource management **(ongoing)**.

Objective 3: Where appropriate, continue to maintain and improve the condition of the existing road network, as well as the condition of roads on new acquisitions **(ongoing)**.

Objective 4: Continue to provide a diversity of traditional hunting opportunities, including seasons for white-tailed deer, quail, dove, gray squirrel, turkey, waterfowl, and feral hog **(ongoing)**.

Objective 5: Consult DHR staff in any planning and development of interpretive information regarding cultural resources **(ongoing)**.

Objective 6: Monitor the level of public use to determine where picnic tables, trash receptacles, and toilet facilities may be warranted **(ongoing)**.

Objective 7: Enforce existing regulations to proactively address illegal access and use of non-authorized vehicles **(ongoing)**.

Goal 5: Continue to identify and protect cultural resources.

Objective 1: Contact DHR prior to site selection for all ground-disturbing activities **(ongoing)**.

Objective 2: Involve DHR staff in planning and development of interpretive information regarding cultural resources **(ongoing)**.

Objective 3: Protect the known prehistoric shell midden and cooperate with DHR in the identification of other possible cultural resources **(ongoing)**.

Objective 4: Consult DHR staff in any planning and development of interpretive information regarding cultural resources **(ongoing)**.

Goal 6: To assure landscape-scale linkages and wildlife corridors, and to achieve the goals of the Escribano Point Florida Forever Project, develop an optimum boundary by continuing to identify and pursue acquisition needs.

Objective 1: Continue to maintain a Geographic Information System (GIS) shapefile, acreage, and other necessary data to facilitate nominations for the FWC Additions and Inholdings Program list (**ongoing**).

Objective 2: Cooperate with and assist DEP-DSL in their efforts to complete the Escribano Point Florida Forever Project (**ongoing**).

VI. RESOURCE MANAGEMENT PROBLEMS AND STRATEGIES

Problem A: DOD's military mission and activities including pilot training at Choctaw AF constrains FWC's ability to conduct prescribed burns and requires complex coordination with adjacent and proximal land owners including Eglin AFB, US Navy (Choctaw Air Field), and JTL Escribano LLC to minimize smoke management concerns. In addition, the fragmented nature of the area and the existence of common boundaries with adjacent land owners present challenges to containing prescribed fire due to a lack of fire breaks.

Strategy: Implement a prescribed fire plan.

Strategy: Continue to collaborate, coordinate, and cooperate in the design and scheduling of prescribed burning activities with the Gulf Coastal Plain Ecosystem Partnership, Eglin AFB, US Navy, JTL Escribano LLC, NFWFMD, Division of Forestry, DEP- CAMA, as well as other multi-agency committees and groups involved in regional natural resource management.

Strategy: Where necessary and appropriate establish perimeter fire breaks.

Problem B: Past silvicultural operations, as well as past development of roads, have resulted in a significant alteration to natural hydrological conditions. This alteration is responsible for the loss of wildlife habitat and an alteration of fish habitat, and has contributed to water distribution, and water quality problems.

Strategy: Continue to collaborate, cooperate, and coordinate hydrological restoration efforts with the Gulf Coastal Plain Ecosystem Partnership, Eglin AFB, US Navy, JTL Escribano LLC, NFWFMD, Division of Forestry, DEP's Office of Coastal and Aquatic Managed Areas (CAMA), as well as other multi-agency committees and groups involved in regional natural resource management.

Strategy: Contract for a hydrological assessment and restoration plan.

Strategy: To protect water resources, use the results of the hydrological assessment and restoration plan to initiate hydrological restoration by maintaining, improving or installing water control structures (i.e., culverts, hardened low water crossings, etc.) at appropriate locations.

Problem C: A lack of practical and physical access hinders FWC's ability to manage EP. Access is needed for management activities. Nature-based recreational opportunities are dependent upon the cooperation of adjacent land owners

including NFWFMD, Eglin AFB, and JTL Escribano LLC.

Strategy: Continue to collaborate, coordinate, and cooperate with the Gulf Coastal Plain Ecosystem Partnership, Eglin AFB, US Navy, JTL Escribano LLC, NFWFMD, Division of Forestry, DEP-CAMA, as well as other multi-agency committees to ensure access to EP.

Strategy: If necessary, pursue access easements to ensure effective access to EP.

Strategy: Continue to maintain a Geographic Information System (GIS) shapefile, acreage, and other necessary data to facilitate nominations for the FWC Additions and Inholdings Program list.

Strategy: Cooperate with and assist DEP-DSL in their efforts to complete the Escribano Point Florida Forever Project.

Problem D: Inventories of flora and fauna are incomplete.

Strategy: Develop contracts with FNAI and other outside providers to accomplish some of the necessary inventory work, especially with regard to existing, and historic plant communities.

Problem E: Invasive exotic species, such as cogongrass, Japanese climbing fern, and feral hogs occur on the area. These species and other exotics are detrimental to native plant and animal communities.

Strategy: Monitor the invasive and exotic species, and take appropriate measures to eradicate or control them.

Strategy: Seek funding through the North Florida Upland Invasive Plant Council, or other sources, for invasive exotic plant control.

Strategy: Supplement existing FWC monitoring efforts by contracting with private providers to accomplish a comprehensive inventory of invasive exotic plant species on the EP.

Problem F: Regulatory and recreational permitting differences between EP and Eglin AFB create confusion for recreational users.

Strategy: Continue to coordinate regulation development and use permitting with Eglin AFB to minimize confusion and conflicts.

Problem G: Habitat conditions in wetland and sandhill communities are not optimal for wildlife species. Previous land uses resulted in the conversion of these areas to a high density of titi and other invasive native woody vegetation.

Strategy: Utilizing the EP prescribed fire plan, employ a diverse fire regime designed to achieve a desired future condition (as determined by objective-based vegetative management [OBVM] objectives) on fire-dependent plant communities.

Strategy: Protect and conserve wetlands through hydrological restoration, appropriate fire management, and management for old-growth forest conditions.

Strategy: Contract with Florida Natural Areas Inventory (FNAI) to identify historic and current vegetative community types pursuant to objective-based vegetation management.

Strategy: Implement roller chopping and a prescribed burning program in order to maintain beneficial understory conditions in pinelands.

Appendix C

**GUIDELINES FOR THE MANAGEMENT OF
ARCHAEOLOGICAL AND HISTORIC RESOURCES**

MANAGEMENT PROCEDURES FOR
ARCHAEOLOGICAL AND HISTORICAL SITES AND PROPERTIES
ON STATE - OWNED OR CONTROLLED LANDS
(revised August, 1995)

A. GENERAL DISCUSSION

Archaeological and historic sites are defined collectively in 267.021(3), F.S., as “historic properties” or “historic resources”. They have several essential characteristics which must be recognized in a management program.

First of all, they are a finite and non-renewable resource. Once destroyed, presently existing resources, including buildings, other structures, shipwreck remains, archaeological sites and other objects of antiquity, cannot be renewed or revived. Today, sites in the State of Florida are being destroyed by all kinds of land development, inappropriate land management practices, erosion, looting, and to a minor extent even by well-intentioned professional scientific research (e.g., archaeological excavation). Measures must be taken to ensure that some of these resources will be preserved for future study and appreciation.

Secondly, sites are unique because individually they represent the tangible remains of events which occurred at a specific time and place.

Thirdly, while sites uniquely reflect localized events, these events and the origin of particular sites are related to conditions and events in other times and places. Sites can be understood properly only in relation to their natural surroundings and the activities of inhabitants of other sites. Managers must be aware of this “systemic” character of historic and archaeological sites. Also, it should be recognized that archaeological sites are time capsules for more than cultural history; they preserve traces of past biotic communities, climate, and other elements of the environment that may be of interest to other scientific disciplines.

Finally, the significance of sites, particularly archaeological ones, derives not only from the individual artifacts within them, but equally from the spatial arrangement of those artifacts in both horizontal and vertical planes. When archaeologists excavate, they recover, not merely objects, but also a record of the positions of these objects in relation to one another and their containing matrix (e.g., soil strata). Much information is sacrificed if the so-called “context” of archaeological objects is destroyed or not recovered, and this is what archaeologists are most concerned about when a site is threatened with destruction or damage. The artifacts themselves can be recovered even after a site is heavily disturbed, but the context - the vertical and horizontal relationships - cannot. Historic structures also contain a wealth of cultural (socio-economic) data which can be lost if historically sensitive maintenance, restoration or rehabilitation procedures are not implemented, or if they are demolished or extensively altered without appropriate documentation. Lastly, it should not be forgotten that historic structures

often have associated potentially significant historic archaeological features which must be considered in land management decisions.

B. STATUTORY AUTHORITY

Chapter 253, Florida Statutes (“State Lands”) directs the preparation of “single-use” or “multiple-use” land management plans for all state-owned lands and state-owned sovereignty submerged lands. In this document, 253.034(4), F.S., specifically requires that “all management plans, whether for single-use or multiple-use properties, shall specifically describe how the managing agency plans to identify, locate, protect and preserve, or otherwise use fragile non-renewable resources, such as archaeological and historic sites, as well as other fragile resources...”

Chapter 267, Florida Statutes is the primary historic preservation authority of the state. The importance of protecting and interpreting archaeological and historic sites is recognized in 267.061(1)(a), F.S.:

The rich and unique heritage of historic properties in this state, representing more than 10,000 years of human presence, is an important legacy to be valued and conserved for present and future generations. The destruction of these nonrenewable historic resources will engender a significant loss to the state’s quality of life, economy, and cultural environment. It is therefore declared to be state policy to:

1. Provide leadership in the preservation of the state’s historic resources; and
2. Administer state-owned or state-controlled historic resources in a spirit of stewardship and trusteeship;...

Responsibilities of the Division of Historical Resources in the Department of State pursuant to 267.061(3), F.S., include the following:

1. Cooperate with federal and state agencies, local governments, and private organizations and individuals to direct and conduct a comprehensive statewide survey of historic resources and to maintain an inventory of such responses.
2. Develop a comprehensive statewide historic preservation plan.
3. Identify and nominate eligible properties to the National Register of Historic Places and otherwise administer applications for listing properties in the National Register of Historic Places.
4. Cooperate with federal and state agencies, local governments, and organizations and individuals to ensure that historic resources are taken into consideration at all levels of planning and development.
5. Advise and assist, as appropriate, federal and state agencies and local governments in carrying out their historic preservation responsibilities and programs.
6. Carry out on behalf of the state the programs of the National Historic Preservation Act of 1966, as amended, and to establish, maintain, and administer a state historic preservation program meeting the requirements of an approved program and fulfilling the responsibilities of state historic preservation programs as

- provided in subsection 101(b) of that act.
7. Take such other actions necessary or appropriate to locate, acquire, protect, preserve, operate, interpret, and promote the location, acquisition, protection, preservation, operation, and interpretation of historic resources to foster an appreciation of Florida history and culture. Prior to the acquisition, preservation, interpretation, or operation of a historic property by a state agency, the Division shall be provided a reasonable opportunity to review and comment on the proposed undertaking and shall determine that there exists historic authenticity and a feasible means of providing for the preservation, interpretation and operation of such property.
 8. Establish professional standards for the preservation, exclusive of acquisition, of historic resources in state ownership or control.
 9. Establish guidelines for state agency responsibilities under subsection (2).

Responsibilities of other state agencies of the executive branch, pursuant to 267.061(2), F.S., include:

1. Each state agency of the executive branch having direct or indirect jurisdiction over a proposed state or state-assisted undertaking shall, in accordance with state policy and prior to the approval of expenditure of any state funds on the undertaking, consider the effect of the undertaking on any historic property that is included in, or eligible for inclusion in, the National Register of Historic Places. Each such agency shall afford the division a reasonable opportunity to comment with regard to such an undertaking.
2. Each state agency of the executive branch shall initiate measures in consultation with the division to assure that where, as a result of state action or assistance carried out by such agency, a historic property is to be demolished or substantially altered in a way which adversely affects the character, form, integrity, or other qualities which contribute to [the] historical, architectural, or archaeological value of the property, timely steps are taken to determine that no feasible and prudent alternative to the proposed demolition or alteration exists, and, where no such alternative is determined to exist, to assure that timely steps are taken either to avoid or mitigate the adverse effects, or to undertake an appropriate archaeological salvage excavation or other recovery action to document the property as it existed prior to demolition or alteration.
3. In consultation with the division [of Historical Resources], each state agency of the executive branch shall establish a program to locate, inventory, and evaluate all historic properties under the agency's ownership or control that appear to qualify for the National Register. Each such agency shall exercise caution to assure that any such historic property is not inadvertently transferred, sold, demolished, substantially altered, or allowed to deteriorate significantly.
4. Each state agency of the executive branch shall assume responsibility for the preservation of historic resources which are owned or controlled by such agency.

Prior to acquiring, constructing, or leasing buildings for the purpose of carrying out agency responsibilities, the agency shall use, to the maximum extent feasible, historic properties available to the agency. Each agency shall undertake, consistent with preservation of such properties, the mission of the agency, and the professional standards established pursuant to paragraph (3)(k), any preservation actions necessary to carry out the intent of this paragraph.

5. Each state agency of the executive branch, in seeking to acquire additional space through new construction or lease, shall give preference to the acquisition or use of historic properties when such acquisition or use is determined to be feasible and prudent compared with available alternatives. The acquisition or use of historic properties is considered feasible and prudent if the cost of purchase or lease, the cost of rehabilitation, remodeling, or altering the building to meet compliance standards and the agency's needs, and the projected costs of maintaining the building and providing utilities and other services is less than or equal to the same costs for available alternatives. The agency shall request the division to assist in determining if the acquisition or use of a historic property is feasible and prudent. Within 60 days after making a determination that additional space is needed, the agency shall request the division to assist in identifying buildings within the appropriate geographic area that are historic properties suitable for acquisition or lease by the agency, whether or not such properties are in need of repair, alteration, or addition.
6. Consistent with the agency's mission and authority, all state agencies of the executive branch shall carry out agency programs and projects, including those under which any state assistance is provided, in a manner which is generally sensitive to the preservation of historic properties and shall give consideration to programs and projects which will further the purposes of this section.

Section 267.12 authorizes the Division to establish procedures for the granting of research permits for archaeological and historic site survey or excavation on state-owned or controlled lands, while Section 267.13 establishes penalties for the conduct of such work without first obtaining written permission from the Division of Historical Resources. The Rules of the Department of State, Division of Historical Resources, for research permits for archaeological sites of significance are contained in Chapter 1A-32, F.A.C.

Another Florida Statute affecting land management decisions is Chapter 872, F.S. Section 872.02, F.S., pertains to marked grave sites, regardless of age. Many state-owned properties contain old family and other cemeteries with tombstones, crypts, etc. Section 872.05, F.S., pertains to unmarked human burial sites, including prehistoric and historic Indian burial sites. Unauthorized disturbance of both marked and unmarked human burial sites is a felony.

C. MANAGEMENT POLICY

The choice of a management policy for archaeological and historic sites within state-owned or controlled lands obviously depends upon a detailed evaluation of the characteristics and conditions of the individual sites and groups of sites within those tracts. This includes an interpretation of the significance (or potential significance) of these sites, in terms of social and political factors, as well as environmental factors. Furthermore, for historic structures architectural significance must be considered, as well as any associated historic landscapes.

Sites on privately owned lands are especially vulnerable to destruction, since often times the economic incentives for preservation are low compared to other uses of the land areas involved. Hence, sites in public ownership have a magnified importance, since they are the ones with the best chance of survival over the long run. This is particularly true of sites which are state-owned or controlled, where the basis of management is to provide for land uses that are minimally destructive of resource values.

It should be noted that while many archaeological and historical sites are already recorded within state-owned or controlled-lands, the majority of the uplands areas and nearly all of the inundated areas have not been surveyed to locate and assess the significance of such resources. The known sites are, thus, only an incomplete sample of the actual resources - i.e., the number, density, distribution, age, character and condition of archaeological and historic sites - on these tracts. Unfortunately, the lack of specific knowledge of the actual resources prevents formulation of any sort of detailed management or use plan involving decisions about the relative historic value of individual sites. For this reason, a generalized policy of conservation is recommended until the resources have been better addressed.

The generalized management policy recommended by the Division of Historical Resources includes the following:

1. State land managers shall coordinate all planned activities involving known archaeological or historic sites or potential site areas closely with the Division of Historical Resources in order to prevent any kind of disturbance to significant archaeological or historic sites that may exist on the tract. Under 267.061(1)(b), F.S., the Division of Historical Resources is vested with title to archaeological and historic resources abandoned on state lands and is responsible for administration and protection of such resources. The Division will cooperate with the land manager in the management of these resources. Furthermore, provisions of 267.061(2) and 267.13, F.S., combined with those in 267.061(3) and 253.034(4), F.S., require that other managing (or permitting) agencies coordinate their plans with the Division of Historical Resources at a sufficiently early stage to preclude inadvertent damage or destruction to known or potentially occurring, presently unknown archaeological and historic sites. The provisions pertaining to human burial sites must also be followed by state

land managers when such remains are known or suspected to be present (see 872.02 and 872.05, F.S., and 1A-44, F.A.C.)

2. Since the actual resources are so poorly known, the potential impact of the managing agency's activities on historic archaeological sites may not be immediately apparent. Special field survey for such sites may be required to identify the potential endangerment as a result of particular management or permitting activities. The Division may perform surveys, as its resources permit, to aid the planning of other state agencies in their management activities, but outside archaeological consultants may have to be retained by the managing agency. This would be especially necessary in the cases of activities contemplating ground disturbance over large areas and unexpected occurrences. It should be noted, however, that in most instances Division staff's knowledge of known and expected site distribution is such that actual field surveys may not be necessary, and the project may be reviewed by submitting a project location map (preferably a 7.5 minute U.S.G.S. Quadrangle map or portion thereof) and project descriptive data, including detailed construction plans. To avoid delays, Division staff should be contacted to discuss specific project documentation review needs.
3. In the case of known significant sites, which may be affected by proposed project activities, the managing agency will generally be expected to alter proposed management or development plans, as necessary, or else make special provisions to minimize or mitigate damage to such sites.
4. If in the course of management activities, or as a result of development or the permitting of dredge activities (see 403.918(2)(6)a, F.S.), it is determined that valuable historic or archaeological sites will be damaged or destroyed, the Division reserves the right, pursuant to 267.061(1)(b), F.S., to require salvage measures to mitigate the destructive impact of such activities to such sites. Such salvage measures would be accomplished before the Division would grant permission for destruction of the affected site areas. The funding needed to implement salvage measures would be the responsibility of the managing agency planning the site destructive activity. Mitigation of historic structures at a minimum involves the preparation of measured drawings and documentary photographs. Mitigation of archaeological resources involves the excavation, analysis and reporting of the project findings and must be planned to occur sufficiently in advance to avoid project construction delays. If these services are to be contracted by the state agency, the selected consultant will need to obtain an Archaeological Research Permit from the Division of Historical Resources, Bureau of Archaeological Research (see 267.12, F.S. and Rules 1A-32 and 1A-46 F.A.C.).
5. For the near future, excavation of non-endangered (i.e., sites not being lost to erosion or development) archaeological sites is discouraged. There are many

endangered sites in Florida (on both private and public lands) in need of excavation because of the threat of development or other factors. Those within state-owned or controlled lands should be left undisturbed for the present - with particular attention devoted to preventing site looting by “treasure hunters”. On the other hand, the archaeological and historic survey of these tracts is encouraged in order to build an inventory of the resources present, and to assess their scientific research potential and historic or architectural significance.

6. The cooperation of land managers in reporting sites to the Division that their field personnel may discover is encouraged. The Division will help inform field personnel from other resource managing agencies about the characteristics and appearance of sites. The Division has initiated a cultural resource management training program to help accomplish this. Upon request the Division will also provide to other agencies archaeological and historical summaries of the known and potentially occurring resources so that information may be incorporated into management plans and public awareness programs (See Management Implementation).
7. Any discovery of instances of looting or unauthorized destruction of sites must be reported to the agent for the Board of Trustees of the Internal Improvement Trust Fund and the Division so that appropriate action may be initiated. When human burial sites are involved, the provisions of 872.02 and 872.05, F. S. and Rule 1A-44, F.A.C., as applicable, must also be followed. Any state agent with law enforcement authority observing individuals or groups clearly and incontrovertibly vandalizing, looting or destroying archaeological or historic sites within state-owned or controlled lands without demonstrable permission from the Division will make arrests and detain those individuals or groups under the provisions of 267.13, 901.15, and 901.21, F.S., and related statutory authority pertaining to such illegal activities on state-owned or controlled lands. County Sheriffs’ officers are urged to assist in efforts to stop and/or prevent site looting and destruction.

In addition to the above management policy for archaeological and historic sites on state-owned land, special attention shall be given to those properties listed in the National Register of Historic Places and other significant buildings. The Division recommends that the Secretary of the Interior’s Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (Revised 1990) be followed for such sites.

The following general standards apply to all treatments undertaken on historically significant properties.

1. A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.

2. The historic character of a property shall be retained and preserved. The removal of historic materials or alterations of features and spaces that characterize a property shall be avoided.
3. Each property shall be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.
4. Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.
5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a historic property shall be preserved.
6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.
7. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.
8. Significant archaeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.
9. New additions, exterior alterations, or related new construction shall not destroy materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.
10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired. (see Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings [Revised 1990]).

Division of Historical Resources staff are available for technical assistance for any of the above listed topics. It is encouraged that such assistance be sought as early as possible in the project planning.

D. MANAGEMENT IMPLEMENTATION

As noted earlier, 253.034(4), F.S., states that “all management plans, whether for single-use or multiple-use properties, shall specifically describe how the managing agency plans to identify, locate, protect and preserve, or otherwise use fragile non-renewable resources, such as archaeological and historic sites...” The following guidelines should help to fulfill that requirement.

1. All land managing agencies should contact the Division and send U.S.G.S. 7.5 minute quadrangle maps outlining the boundaries of their various properties.
2. The Division will in turn identify site locations on those maps and provide descriptions or known archaeological and historical sites to the managing agency.
3. Further, the Division may also identify on the maps areas of high archaeological and historic site location probability within the subject tract. These are only probability zones, and sites may be found outside of these areas. Therefore, actual ground inspections of project areas may still be necessary.
4. The Division will send archaeological field recording forms and historic structure field recording forms to representatives of the agency to facilitate the recording of information on such resources.
5. Land managers will update information on recorded sites and properties.
6. Land managers will supply the Division with new information as it becomes available on previously unrecorded sites that their staff locate. The following details the kind of information the Division wishes to obtain for any new sites or structures which the land managers may report:

A. Historic Sites

- (1) Type of structure (dwelling, church, factory, etc.).
- (2) Known or estimated age or construction date for each structure and addition.
- (3) Location of building (identify location on a map of the property, and building placement, i.e., detached, row, etc.).
- (4) General Characteristics: (include photographs if possible) overall shape of plan (rectangle, “L” “T” “H” “U”, etc.); number of stories; number of

vertical divisions of bays; construction materials (brick, frame, stone, etc.); wall finish (kind of bond, coursing, shingle, etc.); roof shape.

- (5) Specific features including location, number and appearance of:
 - (a) Important decorative elements;
 - (b) Interior features contributing to the character of the building;
 - (c) Number, type, and location of outbuildings, as well as date(s) of construction;
 - (d) Notation if property has been moved;
 - (e) Notation of known alterations to building.

B. Archaeological Sites

- (1) Site location (written narrative and mapped location).
 - (2) Cultural affiliation and period.
 - (3) Site type (midden, burial mound, artifact scatter, building rubble, etc.).
 - (4) Threats to site (deterioration, vandalism, etc.).
 - (5) Site size (acreage, square meters, etc.).
 - (6) Artifacts observed on ground surface (pottery, bone, glass, etc.).
 - (7) Description of surrounding environment.
7. No land disturbing activities should be undertaken in areas of known archaeological or historic sites or areas of high site probability without prior review by the Division early in the project planning.
 8. Ground disturbing activities may proceed elsewhere, but land managers should stop disturbance in the immediate vicinity of artifact finds and notify the Division if previously unknown archaeological or historic remains are uncovered. The provisions of Chapter 872, F.S., must be followed when human remains are encountered.
 9. Excavation and collection of archaeological and historic sites on state lands without a permit from the Division is a violation of state law and shall be reported to a law enforcement officer. The use of metal detectors to search for historic artifacts shall be prohibited on state lands except when authorized in a 1A-32, F.A.C., research permit from the Division.
 10. Interpretation and visitation which will increase public understanding and enjoyment of archaeological and historic sites without site destruction or vandalism is strongly encouraged.
 11. Development of interpretive programs including trails, signage, kiosks, and exhibits is encouraged and should be coordinated with the Division.
 12. Artifacts found or collected on state lands are by law the property of the Division. Land managers shall contact the Division whenever such material is found so that

arrangements may be made for recording and conservation. This material, if taken to Tallahassee, can be returned for public display on a long-term loan.

E. ADMINISTERING AGENCY

Questions relating to the treatment of archaeological and historic resources on state lands may be directed to:

Compliance Review Section
Bureau of Historic Preservation
Division of Historical Resources
R.A. Gray Building
500 South Bronough Street
Tallahassee, Florida 32399-0250

Contact Person: Susan M. Harp
Historic Preservation Planner

Telephone (904) 487-2333
Suncom 277-2333
FAX (904) 922-0496

Appendix D

MANAGEMENT PROSPECTUS

Management Prospectus From 2005 Florida Forever Five Year Plan

Qualifications for state designation

Based on a review of the Florida Forever Act, this project meets the Goals and Measures, as outlined in Statute, for significant corridors, landscape linkages, for archeological and historic sites, and to increase nature-based recreation.

Manager

The high wildlife resource value of this project indicates that the FWC is the suitable lead manager for the area. The FWC should cooperate with other state and local governmental agencies in managing the area.

Conditions affecting intensity of management

Much of the Escribano Point proposal include lands that are relatively undisturbed and representative of the natural ecology of the area. Such areas may require basic resource management practices, such as the use of prescribed fire, maintenance of natural hydrology, and control of access where appropriate. Biotic surveys should be a priority, since there are potentially many taxa of rare or listed species. In addition, the Escribano Point project may need some specific management measures to promote survival of listed species and other species of wildlife. As with all wildlife management areas, minimal infrastructure development will be required to provide for public access and use, site security, and management. Any such development will be confined to areas of previous disturbance.

Timetable for implementing management, and provisions for security and protection of Infrastructure

During the first year after acquisition, emphasis will be placed on site security, posting boundaries, public access, fire management, resource inventory, exotic species control and removal of refuse. A conceptual management plan will be developed by the FWC describing the management goals and specific objectives necessary to implement future resource management. Long-range plans will emphasize restoration and maintenance of ecosystem functions; restoration of native wildlife populations and wildlife diversity including protection and management of threatened and endangered species; and management for sustainable public use of game wildlife populations balanced with other wildlife oriented recreational activities. Essential roads will be stabilized to provide all weather public access and management operations. An all-season prescribed burning management plan will be developed and implemented to improve the habitat quality of native fire-dependent plant communities and wildlife habitats. Where appropriate, practical and in pursuit of wildlife habitat objectives, forest resources will be managed using acceptable silvicultural practices.

Revenue-generating potential

Revenue will be generated from sales of hunting and fishing licenses, wildlife management area stamps and possibly other special hunting stamps. Some revenues might be realized from recreational user fees and ecotourism activities.

Cooperators in management activities

The FWC should cooperate with other state and local governmental agencies in managing the area. These agencies might include the Department of Defense (Eglin AFB), the Department of Environmental Protection, the Division of Forestry, and the Northwest Florida Water Management District.

Management costs and sources of revenue

The proposal, when acquired by the State, will require one FTE position to manage the project area, although certain activities may be privatized which would reduce the number of FTEs required. Funding for natural resource management and public use administration would come from the CARL Trust Fund. See attached table for anticipated costs. It is anticipated that revenues sources would include public use fees and timber harvests.

FWC Prospectus: Projected Budget		
Maximum expected		
single-year expenditure:	Startup	Recurring
Resource Management		
Exotic Species Control	\$14,329	\$28,658
Prescribed Burning	\$2,186	\$4,371
Hydrological Management	\$40,000	\$4,475
Other	\$34,435	\$34,435
Subtotal	\$90,950	\$71,939
Administration		
Central Office/Headquarters	\$52,845	\$17,593
Districts/Regions	\$22,648	\$7,540
Subtotal	\$75,494	\$25,133
Support		
Land Management Planning	\$25,000	\$1,000
Land Management Reviews	\$0	\$500
Training/Staff Development	\$0	\$1,000
Vehicle Purchase	\$110,850	\$15,836
Vehicle Operation/Maintenance	\$13,230	\$13,230
Subtotal	\$149,080	\$31,566
Capital Improvements		
New Facility Construction	\$447,064	\$0
Facility Maintenance	\$0	\$32,702
Subtotal	\$447,064	\$32,702
Visitor Services/Recreation		
Operations	\$1,668	\$141
Subtotal	\$1,668	\$141
Law Enforcement		
All Activities	\$2,508	\$2,508
TOTAL	\$766,763	\$163,988
Figures include salary for 3 FTEs.		

Appendix E

FWC AGENCY STRATEGIC PLAN

Florida Fish and Wildlife Conservation Commission Strategic Plan January, 2007

This plan contains the key strategies that will guide the FWC over the long term and sets forth the behaviors that are essential to successfully achieving our mission. We have taken this long-term view to better ensure the conservation of Florida's fish and wildlife resources.

We are expanding the role of management to place greater emphasis on management through leadership, education and influence. Under this approach, people do what is best for fish and wildlife of their own volition, rather than by the threat of regulatory or enforcement actions.

Regarding the work itself, we want to move from reacting to situations to being more proactive. This entails identifying and working on emerging issues before they overtake us. We are intent on moving from single focus planning where one division or office works on an issue to planning that brings all relevant disciplines of the agency to bear in a coordinated way. We want to keep our eye on the bigger landscape.

Our Vision

Powered by science-based leadership, we will create a sustainable and healthy future for Florida's fish, wildlife, water and habitat resources.

FWC envisions a future where the people who live in or visit Florida care for and contribute to the stability of our fish and wildlife resources and the quality of our environment. FWC will be the recognized leader in the science and management of Florida's fish and wildlife. Residents and visitors will fully support and fund efforts to maintain the resources that provide recreational opportunities for fishing, hunting, wildlife viewing and boating.

Our Mission

To manage fish and wildlife resources for their long-term well-being and the benefit of people.

Our mission is a concise statement of what we do to achieve this vision. This statement captures the concept that humans are an integral part of the equation and that balancing competing public interests, concerns, and uses of natural resources is at the heart of our mission.

Our Goal

To provide healthy resources for safe, satisfied customers.

This is the end result we hope to accomplish through our mission.

Agency Strategies

In this section we describe the strategies we will employ to accomplish our mission. Divisions and offices have plans that specifically address implementation of these strategies. These strategies are not in priority order.

1. Develop proactive, integrated research that anticipates emerging issues and ensures positive resource outcomes.
2. Develop leading-edge resource management programs.
3. Develop proactive, preventative enforcement programs that enable FWC to avoid potential and emerging problems.
4. Develop fish and wildlife recreation opportunities and programs that foster resource stewardship.
5. Improve our resource leadership position by clearly communicating where we are headed, why it is important, and how we plan to get there.
6. Increase stakeholder involvement and interaction on emerging issues to proactively reduce resource conflicts.
7. Initiate partnerships as a means of addressing the big resource issues facing Florida.
8. Integrate human dimensions insights into management planning and decision making.
9. Integrate our activities to better achieve sustainable populations of species, protect critical habitat and high quality environmental resources.
10. Foster and develop the multi-disciplinary expertise of the FWC needed to ensure strategic, integrated solutions that address and solve resource problems.
11. Build a collaborative workforce built on professionalism, with the skills and resources needed to maximize effectiveness.

Agency Code of Conduct

As we implement this plan, we will do so in a manner consistent with the value we place on respect for the individual and recognition of what teamwork, genuinely employed, can accomplish.

Lead and Make Informed Decisions

FWC leadership is about: creating a vision, aligning agency resources to accomplish the vision, and empowering people to do the work. We will work with our employees, customers and stakeholders to set the vision for Florida's fish and wildlife future, align the resources and empower people to make this vision a reality.

These, in no order of priority, are our guides.

1. Balance the needs of citizens with the needs of the resource, putting the resource first in our decisions and actions.
2. Make resource decisions based on the best available science with a balance of enforcement and management practicality.
3. Make consistent, thoughtful and timely decisions that keep pace with the needs of the resource.
4. Seek first to influence others rather than regulate them.
Develop collaborative approaches to address conservation needs.
5. Be proactive in our actions, anticipating emerging issues and getting out in front of them.
6. Adopt a landscape or big picture approach that uses interdisciplinary teams to address complex resource-management issues.
7. Effectively involve citizens and staff who are closest to an issue in the decision-making process.
8. Use teamwork and collaboration to integrate our work effort.
9. Communicate well up and down the organization, across the organization, and externally with others.

Provide Excellent Service

Providing the best possible service to the public and one another is essential to gathering the support we need to achieve our mission. These, in no order of priority, are our guides.

10. Provide consistent, high-quality service to citizens.
11. Be collaborative and respectful in interactions with fellow employees.
12. Seek input from and listen to citizens; understand and try to meet their needs.

13. Proactively engage stakeholders and management partners in planning and decision-making; strive to continuously inform affected parties of plans and actions.

14. Work with all parties on issues in a fair and balanced way; create forums for dialogue and seek the middle ground. Focus on conflict resolution and collaboration.

15. Partner with others.

16. Communicate the reasons for our actions and state a consistent FWC point of view (speak with one voice).

17. Continually improve agency processes, operations and cost-effectiveness.

Measurement

We will measure progress on implementing this plan using an agency-level scorecard. This scorecard is under development and includes specific and measurable objectives for judging how well we're doing on the end results of our actions.

Appendix F
COST AND TIME ESTIMATES WITH
UNIFORM COST ACCOUNTING ACTIVITY CODE

FY 2005-06
Project 7280 - ESCRIBANO POINT

	Man Days	Salary	FuelCost	Other	Total	Units	Accomplishments
Species 9200 - All wildlife							
Activity - 100	Administration						
	1.00	\$160.00	\$6.90	\$0.00	\$166.90	0	General supervisory, clerical and administrative duties.
Activity - 101	Project inspection						
	5.00	\$800.00	\$34.50	\$0.00	\$834.50	0	Inspect area projects and activities, field orientation and inspection of land boundaries, features and habitats.
Activity - 103	Meetings						
	4.00	\$640.00	\$27.60	\$0.00	\$667.60	0	Attend cooperator, scientific and agency meetings.
Activity - 104	Budget/purchasing/accounting						
	1.00	\$160.00	\$6.90	\$0.00	\$166.90	0	Summarize and track area budget allocations.
Activity - 140	Report writing/editing/manuscript preparation						
	5.00	\$800.00	\$34.50	\$0.00	\$834.50	0	Prepare annual, activity and wildlife management reports as needed.
Activity - 150	Personnel management						
	1.00	\$160.00	\$6.90	\$0.00	\$166.90	0	Supervise volunteer activities. Recruit, hire and supervise OPS.
Activity - 182	Data management						
	5.00	\$800.00	\$34.50	\$2,103.50	\$2,938.00	0	Digitize habitat features for use in GIS database. Incorporate all data collected into GIS database. Analyze

	Man Days	Salary	FuelCost	Other	Total	Units	Accomplishments
							and summarize WMA databases (\$2,103.50 EXP.).
Activity - 200	Resource Management						
	1.00	\$160.00	\$6.90	\$1,000.00	\$1,166.90	0	Routine planning, paperwork, purchases and correspondences dealing with daily operations of the WMA (\$1,000 EXP.).
Activity - 204	Resource planning						
	15.00	\$2,400.00	\$103.50	\$1,500.00	\$4,003.50	0	Coordination of work projects related to management activities. Prepare written work plan, proposals, CMP) (\$1,500 EXP.).
Activity - 206	Prescribed burning - growing season						
	2.00	\$320.00	\$13.80	\$15,626.00	\$15,959.80	0	Develop fire management plan for area (100228/72 = \$2,126 for covered ATV trailer) (100228/72 = \$8,500 for ATV) (100228/72 = \$5,000 for ATV burn tank & water pumper).
Activity - 212	Exotic plant control (chemical)						
	1.00	\$160.00	\$6.90	\$0.00	\$166.90	0	Treat invasive exotic plants as needed.
Activity - 276	Commission rule development and review						
	1.00	\$160.00	\$6.90	\$0.00	\$166.90	0	Develop and submit area rule changes as necessary. NFA.
Activity - 281	Technical assistance						
	1.00	\$160.00	\$6.90	\$0.00	\$166.90	0	Provide technical information and assistance to cooperating or other state agencies

	Man Days	Salary	FuelCost	Other	Total	Units	Accomplishments regarding wildlife management, habitat and development of interpretive displays or wildlife viewing.
Activity - 294	Program coordination and implimentation						
	1.00	\$160.00	\$6.90	\$0.00	\$166.90	0	Intra and interagency coordination.
Activity - 312	Informational signs						
	1.00	\$160.00	\$6.90	\$500.00	\$666.90	0	Maintain entrance and informational signs as needed (\$500 EXP. for materials).
Activity - 923	FEM -- vehicles/equipment						
	2.00	\$320.00	\$13.80	\$0.00	\$333.80	0	Repair and maintain ATVs and misc. equipment as needed.
Activity - 926	FEM -- roads/bridges						
	1.00	\$160.00	\$6.90	\$0.00	\$166.90	0	Maintain entrance roads and access roads as needed.

Species 9200 Total 48.00 \$7,680.00 \$331.20 \$20,729.50 \$28,740.70

Species 9210 - Game wildlife

Activity - 221	Animal surveys						
	1.00	\$160.00	\$6.90	\$0.00	\$166.90	0	Conduct game surveys as needed for WMA.
Activity - 341	Public use administration (hunting)						
	1.00	\$160.00	\$6.90	\$0.00	\$166.90	0	Prepare area hunt map and brochure as needed. Administer public hunts.

Species 9210 Total 2.00 \$320.00 \$13.80 \$0.00 \$333.80

Species 9240 - Nongame wildlife

Activity - 221 Animal surveys

	Man Days	Salary	FuelCost	Other	Total	Units Accomplishments
	5.00	\$800.00	\$34.50	\$0.00	\$834.50	0 Conduct nongame wildlife surveys as needed for area.
<hr/>						
Species 9240 Total	5.00	\$800.00	\$34.50	\$0.00	\$834.50	
<hr/>						
Species 9280 - All threatened and endangered wildlife						
Activity - 221	Animal surveys					
	5.00	\$800.00	\$34.50	\$0.00	\$834.50	0 Conduct threatened and endangered wildlife surveys as needed.
<hr/>						
Species 9280 Total	5.00	\$800.00	\$34.50	\$0.00	\$834.50	
<hr/>						
Project 7280 Total	60.00	\$9,600.00	\$414.00	\$20,729.50	\$30,743.50	

ORG - Category Breakdown

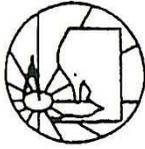
ORG	EO	Category	Total
77352030100	72	100228	\$15,626.00
77352030100	80	040000	\$5,103.50

Total Income: \$0.00

[Return to Planning Homepage](#)

Appendix G

**LOCAL GOVERNMENT LETTER OF CONSISTENCY WITH
LOCAL GOVERNMENT COMPREHENSIVE PLAN**



COMMUNITY PLANNING, ZONING AND DEVELOPMENT DIVISION
SANTA ROSA COUNTY, FLORIDA

December 5, 2006

Mr. Leo L. Minasian, Jr.
Florida Fish and Wildlife Conservation Commission
Division of Habitat and Species Conservation
620 South Meridian Street
Tallahassee, FL 32399-1600

Dear Mr. Minasian:

In response to your letter of November 20, 2006, we have reviewed the draft conceptual management plan (CMP) for the Escribano Point Parcels in the Yellow River Wildlife Management Area (EPYRWMA) managed by the Florida Fish and Wildlife Conservation Commission (FWC) and find it to be consistent with the Santa Rosa County Comprehensive Plan. The draft CMP furthers the intent of the Coastal Management, Conservation, Recreation and Open Space Elements of the local comprehensive plan by establishing sound land use and management objectives to protect valuable environmental resources that enhance the quality of life for our citizens. A few additional comments and recommendations for consideration in the final CMP follow:

- Although "off road vehicle use" is listed as rejected in the CMP (Section III, Part D, "Analysis of Multiple-use Potential", Table 24), the potential exists for roadways to accommodate public uses such as camping, boating, etc. While adequate access to public recreation opportunities is important, public vehicular access via public lands to land-locked private property west of Escribano Point Parcels #2 and #3 should be prohibited to protect landscape connectivity and be consistent with the purposes for which the lands were acquired. The rejection of such usage could be: 1) incorporated in the aforementioned table of the CMP; 2) reiterated in Section IV, Part F, "Description of Existing or Planned Uses and Key Management Activities", Subsection 1.d; and 3) added within the text of Section IV, Part F, Subsection 2, Goal 4 "Provide nature-based recreation and educational opportunities", Objectives 2, 4, and/or 8.
- The CMP Section IV, Part A, "Management Responsibilities of Each Agency" should include Santa Rosa County among the list of cooperating agencies. Santa Rosa County's management responsibilities include local permitting requirements for the construction of facilities, structures, and/or access within the county's jurisdiction in cooperation with all federal and state regulatory authorities.
- Minor edits: The draft CMP Section VII contains a reference to Sections III.H. and III.K, but the content of subject referenced appears to be contained in Section IV. In addition, the pagination of the CMP review copy does not appear to coincide with the Table of Contents. Such pagination may be the result of its electronic posting, but should be checked for accuracy in the final CMP.

We appreciate the opportunity to review and provide feedback on this important endeavor to protect and preserve our environment. Please direct questions or correspondence concerning this review to Carol Heileman at 850-981-7075, via fax at (850) 983-9874, or email carolh@co.santa-rosa.fl.us.

Sincerely,

Carol Heileman
Planner III

Appendix H
PRESCRIBED BURNING PLAN

Escribano Point parcels of the Yellow River WMA Prescribed Burning Plan

INTRODUCTION

Fires, naturally occurring or man-induced, are an integral part of the ecology of the southern pine (*Pinus spp.*) region (Miller 1963) and have maintained a fire-dependent plant community in the southeast for countless years. Exclusion of fire reduces nutrient cycling and changes the vegetative community from an open canopy system to a closed one. The growth of dense brush shades out fire-dependent plants, included listed species, and has an adverse effect on fire-dependent animals such as red-cockaded woodpeckers. Exclusion of fires allows successional stages to occur until a climax hardwood community exists. Areas covered by dense brush lose much of their value to wildlife. For example, food and browse plants are less palatable, access is restricted and predator's ability to capture prey is hampered. Additionally, heavy fuel accumulation results in increased wildfire hazard.

Prescribed burning is used extensively in forestry and wildlife management for fuel reduction, brush control, disease and insect control, site preparation and wildlife habitat improvement. It is a recommended tool for management of such game animals as white-tailed deer (*Odocoileus virginianus*), bobwhite quail (*Colinus virginianus*), mourning dove (*Zenaida macroura*) and wild turkey (*Meleagris gallopavo*) (U. S. Forest Service 1969, Stoddard 1971). The value of prescribed fire to these and other animals, such as raptors and some songbirds, are well documented (Givens 1962, Miller 1963, Stoddard 1963). Prescribed fire benefits wildlife by reducing underbrush density, thus improving access, promoting the growth of succulent vegetation and lowering browse to feeding height of deer. Additionally, it benefits aesthetic values and enhances growth and fruiting of important wildlife food plants, such as dewberries (*Rubus spp.*) and blueberries (*Vaccinium spp.*) (Halls 1977).

BURN OBJECTIVES

Prescribed fire will be used on the Escribano Point parcels in Yellow River Wildlife Management Area (EPYRWMA) as a habitat management tool exclusively or in conjunction with other management techniques to accomplish a variety of objectives. The primary objective for using prescribed fire on EPYRWMA is to restore and /or maintain fire-dependent native habitat communities. This will result in preserving native plant communities including restoration of native groundcover while simultaneously improving wildlife habitat. Secondary objectives for the use of prescribed fire include the maintenance of early successional habitats and timber management in some burn units. Early successional habitats are important for many species of wildlife found on EPYRWMA.

The benefits derived from prescribed burning on the EPYRWMA include not only long term preservation of native plant communities and improved wildlife habitat but numerous others as well:

- 1) Reduction of fuel loads, which helps to prevent or mitigate effects of wildfires.
- 2) Enhancement of the areas aesthetics by controlling undesirable vegetation.
- 3) Control of exotic plant species.
- 4) Improved public access.
- 5) Increased success of longleaf pine regeneration.

DESCRIPTION OF AREA

The EPYRWMA consists of 1,166 acres in Santa Rosa County, which are leased to the Florida Fish and Wildlife Conservation Commission (FWC) and are the subject of this Conceptual Management Plan (CMP). They are located approximately 6 miles northwest of Navarre, 6 miles southeast of Milton, 14 miles northeast of Pensacola (across Pensacola Bay) and 29 miles southeast of Crestview. The northernmost of the three FWC-managed parcels is bordered on the east by Eglin Air Force Base (AFB), on the south by Northwest Florida Water Management District (NFWFMD) -owned lands within the Yellow River Wildlife Management Area (WMA), and on the west and north by herbaceous (estuarine) wetlands along Blackwater Bay, including Catfish Basin on the east, and the Weaver River (which leads into the Yellow River) on the north. The southern two parcels are bordered by Eglin AFB on the north, east, and part of the southern boundary; and on part of the southern boundary and the west by private lands extending to East Bay.

The EPYRWMA contains the following Florida Natural Areas Inventory (FNAI) natural communities: Basin Swamps, Baygall, Dome Swamp, Estuarine Tidal Marsh, Floodplain Forest, Maritime Hammock, Mesic Flatwoods, Ruderal, Sandhill, Wet flatwoods, Wet Prairie and Xeric Hammock.

NATURAL COMMUNITY DESCRIPTION

The natural community types on EPYRWMA have been described in detail by the FNAI. A contract with FNAI to prepare natural community descriptions to accompany a vegetation classification map for the area was completed in May 2006. A draft of the comprehensive text and associated maps (historic and present) is contained in Appendix I of *A Conceptual Management Plan for Escribano Point Parcels in Yellow River Wildlife Management Area*.

PRESCRIBED BURNING PROGRAM

A. Firelines

Natural features (e.g. drains, creeks and rivers) and existing roads are used as firelines whenever possible. Many of the roads that are utilized as firebreaks will

be maintained for public access and management. The less used roads, however, have re-vegetated, therefore, disking or grading are required to maintain them as functional firebreaks. Additional firebreaks may be needed on the area perimeter and around inholdings to protect private lands. New firebreak construction will follow all guidelines required for state-owned lands. Brush and trees will be removed so that the firebreak can be maintained with a tractor and disk.

B. Size and Arrangement of Compartments

Three units (1,161 acres) have been delineated on EPYRWMA, (Figure 1). The three burn units are tightly juxtaposed to property managed/owned by the NFWWMD, Eglin Air Force Base, (AFB) and several private landowners. Plans will be to integrate the surrounding acreage of NFWWMD, Eglin AFB and a few small privately owned parcels into a larger interagency government (as well as private landowners) prescribed burn. Given this larger cooperative burn fewer firelines will be required or established, thereby burning across natural communities in this area. Ideally, burns should be conducted at 3-5 year intervals or on a prescribed need to burn in consecutive years if objectives are not accomplished. Every effort is made, when burning, to introduce fire to the pineland areas within these units.

C. Type of Burn

An initial backfire will be used to secure the area to be burned. Aerial ignition will constitute the main form of ignition on the area, which reduces smoke hazards, the time necessary to burn a compartment and burning costs.

D. Season and Time of Day

Initially, prescribed burning of EPYRWMA and surrounding cooperators' acreage will be conducted during the dormant season (October-March). When the heavy fuel loads have been reduced, burns will be switched to primarily growing season (April-September). Burning will be conducted primarily during daylight hours; night burning will be avoided due to problems associated with smoke dispersal. However, if favorable conditions exist and permits can be obtained, burning will be continued into the night.

E. Optimal Weather Conditions

For most of EPYRWMA, winds out of the north, especially northeast, are needed for burning. These winds will push fire and smoke away from Highway 87, Interstate 10, Choctaw Naval Air Field and Eglin AFB. .

F. Smoke Management

Direction, volume and dissipation of smoke from prescribed burning on EPYRWMA is of primary concern due to the proximity of smoke-sensitive areas. Areas that may be affected by smoke (or particulates carried by smoke) under optimum burning conditions are Highway 87 (northeast-east), Milton, Choctaw

Naval Air Field, portions of Eglin AFB, Blackwater Bay/East Bay boat traffic and inholdings within the area.

To minimize smoke problems, burning should be conducted when the atmosphere is slightly unstable, with mixing height a minimum of 1,700 feet and transport wind speed of 9 mph or more (Southern Forest Fire Laboratory 1976, Crow and Shilling 1983). Additionally, use of backfires, as prescribed, will produce less smoke and consume fuel more completely than headfiring (Mobley et al. 1973, Southern Forest Fire Laboratory 1976, Crow and Shilling 1983). Residual smoke problems (such as stumps, snags, or logs near state or county roads) will be promptly mopped-up and monitored to minimize smoke hazards.

Smoke management is difficult when night burning because smoke often stays close to the ground and smoke drift is difficult to predict. Additionally, smoke tends to seek lower laying areas (along streams and creeks) and may drift east across Highway 87 or south across Highway 98. In general for night burns, backing fires with a surface wind speed of greater than 4 mph and relative humidity under 80 percent are recommended. Night burning will be approached with caution and in close association with the Division of Forestry (DOF) to avoid these problems. Preferred wind direction for the burn units of EPYRWMA has a strong northerly component, which will carry the smoke over the bay system.

G. Personnel

Under ideal conditions, burning can be conducted with a minimum crew of five to eleven. Ignition crews (2 -3 members each), one crew to man the pumper (2 members) and three individuals in the helicopter, as pilot, observer and AIDS operator (when aerial ignition is used) will be coordinated in sufficient numbers to manage the acreage to be burned that day. Commission personnel from the Northwest Region who are DOF-certified for prescribed burning will conduct the burning. Since plans are for an interagency cooperative burn, personnel from the NFWFMD, Eglin AFB and DOF will also be involved. Moreover, because EPYRWMA (and FWC) is a member of the Gulf Coast Plain Ecosystem Partnership (GCPEP), personnel from The Nature Conservancy (TNC) and other state and federal agencies (DEP, USFS and USPS) may be used if they are available.

H. Equipment

Along with PPEs and hand-held radios; fire flaps, fire rakes, shovels, drip torches, burn fuel, ATVs, trucks, water pumper, helicopter and AIDS machine are available for use. Smoke caution signs for Highway 87 and fire hazard signs may be necessary. A tractor/crawler and other fire suppression equipment will be supplied to the site by FWC and equipment from NFWFMD, Eglin AFB and DOF will also be present. Other fire suppression equipment from GCPEP may be

come available as well.

I. Permits and Notifications

A permit will be obtained from DOF on the morning of the burn. In addition, arrangements will be made to have a FWC, NFWMD and/or Eglin AFB suppression crews on stand-by during the burn whenever necessary. Notification of burning will be given to:

1. Santa Rosa Co. Sheriff Dept.
2. Residents of the inholdings
3. FHP or FWC law enforcement if needed for traffic safety

J. Evaluation of Burn

Initial evaluation of the fire will be conducted within one week and include: percent crown scorch, bark char (height), fuel consumption, flame height, fire behavior, smoke dispersion, any escape, adverse publicity, progress toward objectives and other observations. A follow-up evaluation will be completed within one month and will include crown scorch, understory kill, adverse insect activity and other observations. These observations will be incorporated into future burn prescriptions.

K. Special Considerations

Attention will be given to the safety of private inholdings when burning adjacent units. The firebreaks around the inholdings will be reinforced; a pumper unit and/or a fireplow will be stationed nearby to expedite response time to the area if required. Telephone pedestals, power poles and entrance signs will be raked of heavy vegetation and sprayed with water prior to fire reaching them.

Growing season burning may affect various wildlife species that are highly active during this period. Moreover, growing season burns may also adversely impact other nesting reptiles, birds and mammals, particularly by fast-moving headfires. Consideration for summer burning will be given weighing overall habitat benefits against potential harm to wildlife populations.

L. Growing Season Burning Procedure

Growing season prescribed burning is generally performed for site preparation and hardwood brush control. High air temperatures reduce the amount of heat needed to raise plant temperatures to lethal levels. Actively growing plants are more easily killed by fire than dormant plants, which results in better hardwood brush control than winter fires (Mobley et al. 1973, G. Evans, Tall Timbers Research Station, pers. commun.). In addition, growing season burns promote an increase in herbaceous vegetation growth, promote species diversity, releases planted longleaf pine seedlings from vegetative competition, helps control brown-spot disease and mimic naturally occurring summer lightning fires.

Growing season burns will be conducted during April through September with

desired wind speed and relative humidity as prescribed. The preferred and most reliable winds during the summer burning period are easterly to southeasterly (Krueger and Pachence 1961; B. Hodges, DOF, pers. commun.). In the coastal zone, these wind conditions occur primarily in the afternoon with the presence of high pressure over or slightly north of the area. Backfires will be set along the lee side of the compartments to establish a baseline. After baseline establishment, additional ignition (aerial or ground ignition) within the unit will help minimize the potential for overstory damage and prevent fires from building high intensity.

LITERATURE CITED

- Crow, A. B., and C. L. Shilling. 1983. Prescribed burning in Louisiana pinelands. Louisiana State Univ. Coop. Ext. Serv. Pub. 1618.
- Givens, L. S. 1962. Use of fire on southeastern wildlife refuges. Proc. Annu. Tall Timbers Fire Ecol. Conf. 1:121-126.
- Halls, L. K. 1977. Southern fruit-producing woody plants used by wildlife. U. S. For. Serv. Gen. Tech. Rep. SO-16.
- Krueger, D. W., and A. M. Pachence. 1961. Wind directions for prescribed burning in southeastern United States. Southeast. For. Exp. Sta., Pap. 131.
- Means, D. B., and H. W. Campbell. 1981. Effects of prescribed burning on amphibians and reptiles. Pages 89-97 in G. W. Wood (ed.). Prescribed fire and wildlife in southern forests. Belle W. Baruch Forest Science Institute, Clemson Univ., Georgetown, S.C.
- Miller, H. A. 1963. Use of fire in wildlife management. Proc. Annu. Tall Timbers Fire Ecol. Conf. 2:19-30.
- Mobley, H. E., R. S. Jackson, W. E. Balmer, W. E. Ruziska, and W. A. Hough. 1973. A guide for prescribed fire in southern forests. U. S. For. Serv., Southeastern State and Private Forestry-2, Atlanta, Ga.
- Southern Forest Fire Laboratory. 1976. Southern forestry smoke management guidebook. U.S. For. Serv. Gen. Tech. Rep. SE-10.
- Stoddard, H. L. 1963. Bird habitat and fire. Proc. Annu. Tall Timbers Fire Ecol. Conf. 2:163-175.
- Stoddard, H. L. 1971. Wildlife habitat management handbook--southern region. FSH 2609.23R, U. S. For. Serv., Atlanta, Ga.

U. S. Forest Service. 1969. Wildlife Habitat Improvement Handbook. FSH 2609.11, U.S. For. Serv., Washington, D.C.

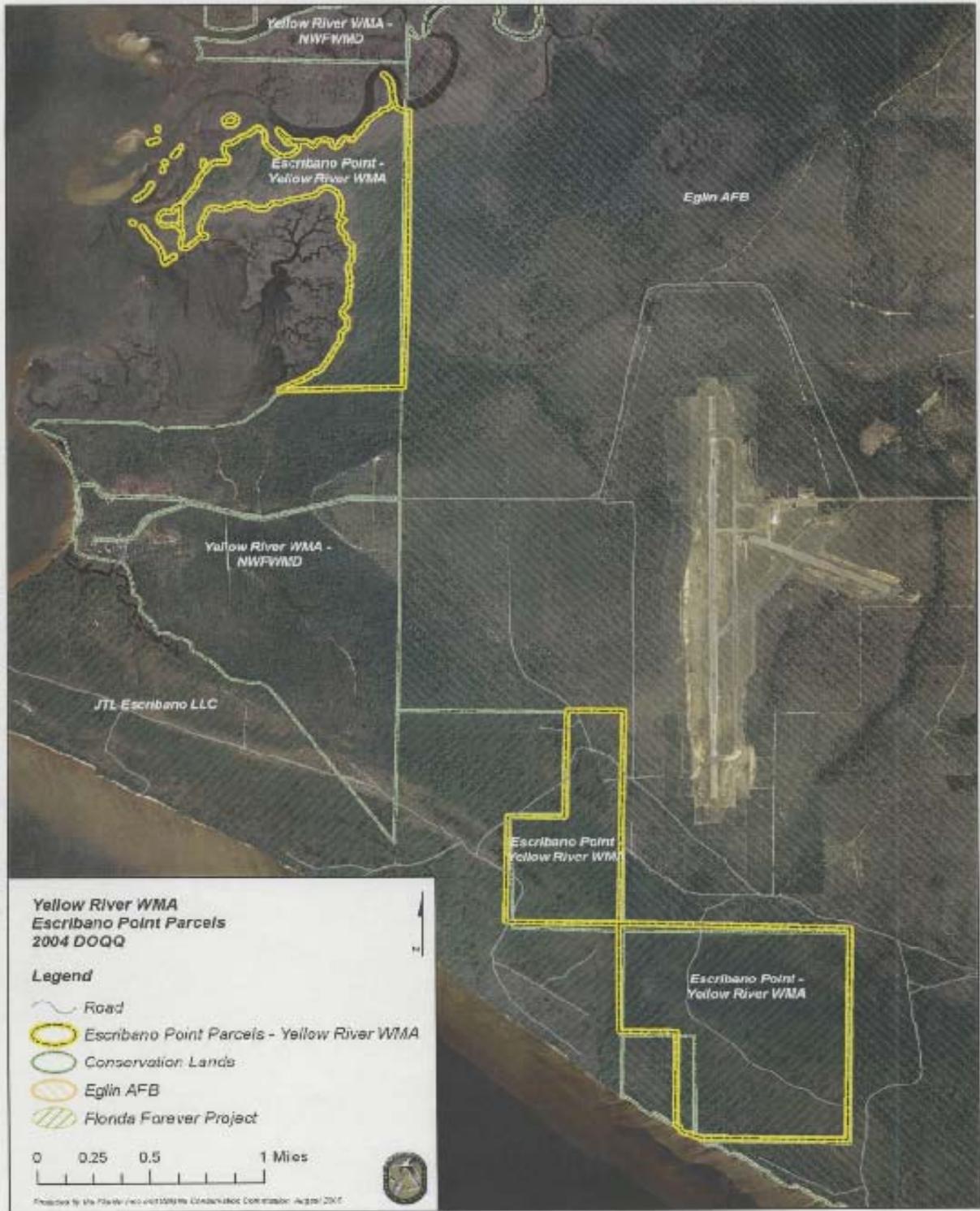


Figure 1. EPYRWMA burn units.

PRE-BURN	BURN	POST BURN
WEATHER FACTORS		ACTUAL
Surface Winds		
Transport Winds		
Minimum Mixing Height		
Dispersion Index (Day)		
Maximum Temperature		
Minimum Relative Humidity		
Fuel Moisture		
Starting Time		
Burn Technique		
Days Since Rain: 2-5		

PRE-BURN CHECKLIST

BURN MANAGER: Initial each item to indicate compliance.

- _____ All prescription requisites met (preparation and day of burn)
- _____ Authorization obtained
- _____ Adjacent landowners notified
- _____ Local contacts made day of burn to advise
- _____ Smoke screening performed and documented
- _____ All equipment required on scene and fully operational
- _____ Each crew member has proper personal gear and clothing

- _____ Objectives of burn
- _____ Acreage of burn
- _____ Hazards discussed
- _____ Crew assignments made
- _____ Ignition technique and pattern / Holding methods
- _____ Location of extra equipment, fuel, water, vehicle keys
- _____ Authority and communications
- _____ Contingencies covered including escape routes and procedures
- _____ Sources of nearest assistance
- _____ Special instructions regarding smoke management, contact with public and others
- _____ Questions?
- _____ Crew members given opportunity to decline participation

Prescription Prepared by:

Certification Number:

Title:

Signature:

Date:

Burn Manager:

Appendix I

**UNITED STATES DEPARTMENT OF AGRICULTURE NATURAL RESOURCES
CONSERVATION SERVICE SOILS DESCRIPTIONS AND RELATIONSHIPS TO
VEGETATION**

A. SOIL TYPES

The following names and descriptions of soil types occurring within the EPYRWMA are provided by the U. S. Department of Agriculture, Natural Resources Conservation Service (1, 2).

1. BIBB

[Coarse-loamy, siliceous, active, acid, thermic Typic Fluvaquents] The Bibb series consists of very deep, poorly drained, moderately permeable soils that formed in stratified loamy and sandy alluvium. These soils are on flood plains of streams in the Coastal Plain. They are commonly flooded and water runs off the surface very slowly. Slopes range from 0 to 2 percent. This soil type supports dominantly native woodland of sweetgum, loblolly pine, red maple, water oak, willow oak, green ash, bald cypress, swamp tupelo, and black willow.

2. Bohicket

[Fine, mixed, superactive, nonacid, thermic Typic Sulfaquents] The Bohicket series consists of very poorly drained, very slowly permeable soils that formed in marine sediments in tidal marshes. These soils are flooded twice daily by sea water. Slopes are less than 2 percent. This includes wetland wildlife habitat too soft for cattle grazing. Dominant vegetation is smooth cordgrass.

3. Lakeland

[Thermic, coated Typic Quartzipsamments] The Lakeland series consists of very deep, excessively drained, rapid to very rapidly permeable soils on uplands. They formed in thick beds of eolian or marine sands. Slopes are dominantly from 0 to 12 percent but can range to 85 percent in dissected areas. Many areas are cleared and used for peanuts, watermelons, peaches, corn, tobacco, and improved pasture. The natural vegetation consists of blackjack oak, turkey oak, post oak, scattered long leaf pine, and an understory of creeping bluestem, sandy bluestem, lopsided indiagrass, hairy panicum, fringeleaf paspalum, and native annual forbs.

4. Leon

[Sandy, siliceous, thermic Aeric Alaquods] The Leon series consists of very deep, moderate to moderately slowly permeable, poorly and very poorly drained, sandy soils on upland flats, depressions, stream terraces, and tidal areas. They formed in sandy marine sediments of the Atlantic and Gulf Coastal Plain. Slopes range from 0 to 5 percent. Most areas of Leon soils are used for forestry, range and tame pastures. Areas with adequate water control are used for cropland and vegetables. Natural vegetation is longleaf pine, slash pine, water oak, myrtle, and a thick undergrowth of saw palmetto, running oak, fetterbush, inkberry (gallberry), chalky bluestem, creeping bluestem and pineland threeawn (wiregrass). In depressions, brackenfern,

smooth sumac and swamp cyrilla are common. Vegetation in tidal areas includes bushy sea oxeye daisy, marsh hay cordgrass, seashore saltgrass, batis, and smooth cordgrass.

5. Pactolus

[Sandy, Thermic, coated Aquic Quartzipsamments] This series includes moderately well to somewhat poorly drained soils with rapid permeability. The soils landscape is the Coastal Plain, slope is 0 to 6 percent, and parent material is sandy fluvial and marine sediments. Vegetation where cultivated includes corn, soybeans, peanuts, improved pasture grasses, tobacco, and truck crops. Where wooded, vegetation consists of loblolly pine, longleaf pine, sweetgum, blackgum, red maple, water oak, willow oak, and black cherry, gallberry, inkberry, blueberry, huckleberry, greenbrier, sassafras, and switch cane.

6. Pamlico

[Sandy, siliceous, thermic Terric Haplosaprists] The Pamlico series consists of very poorly drained soils that formed in decomposed organic material underlain by dominantly sandy sediment. The soils are on nearly level flood plains, bays, and depressions of the Coastal Plain. Slopes are less than 1 percent. In the natural stage, practically all of these soils are used for woodland and wildlife. The native vegetation consists of pond pine, tupelo gum, sweetbay, gum trees, cypress, greenbrier, wax myrtle bushes, with undergrowth of gallberry and cut bamboo briars. These soils are used for improved pasture, corn, soybeans, oats, truck crops, and other cultivated crops when drained.

7. Rutlege

[Sandy, siliceous, thermic Typic Humaquepts] The Rutlege series consists of very deep, very poorly drained, and rapidly permeable soils. Parent material is marine or fluvial sediments. Slope of 0 to 2 percent. Major Uses: truck crops and forest. The dominant vegetation, where cultivated, often includes corn, soybeans, blueberries, hay and pasture. Where wooded, vegetation consists of blackgum, Carolina ash, red maple, sweetbay magnolia, tulip popular, water oak, pin oak, pond pine, slash pine, and loblolly pine. The understory is huckleberry, wax myrtle, greenbriar, grasses and sedges. Some ponded areas consist of entirely grasses and sedges.

B. APPENDIX I LITERATURE CITED

(1) United States Department of Agriculture. 2002. USDA Detailed soils (SSURGO) (GIS Data Layer). Natural Resources Conservation Service, Gainesville, FL.

(2) United States Department of Agriculture. Official soil series descriptions [Online WWW]. Soil Survey Staff, Natural Resources Conservation Service, Available URL: <http://soils.usda.gov/technical/classification/osd/index.html> [Accessed 10 February 2004].