

Florida Fish and Wildlife Conservation Commission
Division of Habitat and Species Conservation
Land Conservation and Planning
Lower Perdido River Buffer Florida Forever Project Analysis
December 2024



This document contains the Florida Fish and Wildlife Conservation Commission's (FWC) Geographic Information System (GIS) data analysis of the area yet to be acquired within the **Lower Perdido River Buffer** Florida Forever project. This analysis was performed to provide FWC and others with important fish and wildlife resource information to be used in evaluating and ranking Florida Forever projects. The data selected for analysis are those considered by FWC to spatially reflect important fish and wildlife habitat and life history requirements.

In addition, FWC has completed a field review and associated assessment report for this project/proposal that is incorporated within the Acquisition and Restoration Council Florida Forever Project Evaluation Report. This report is available upon request.

GIS Data

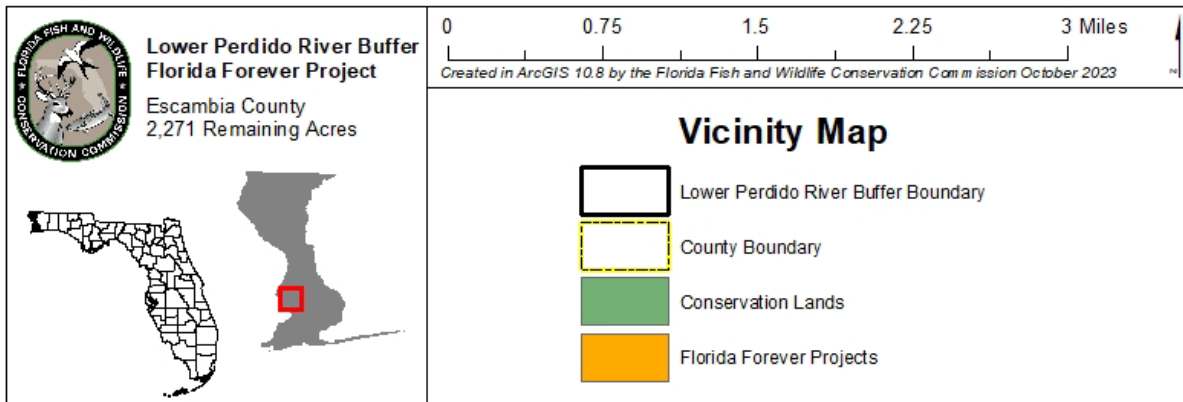
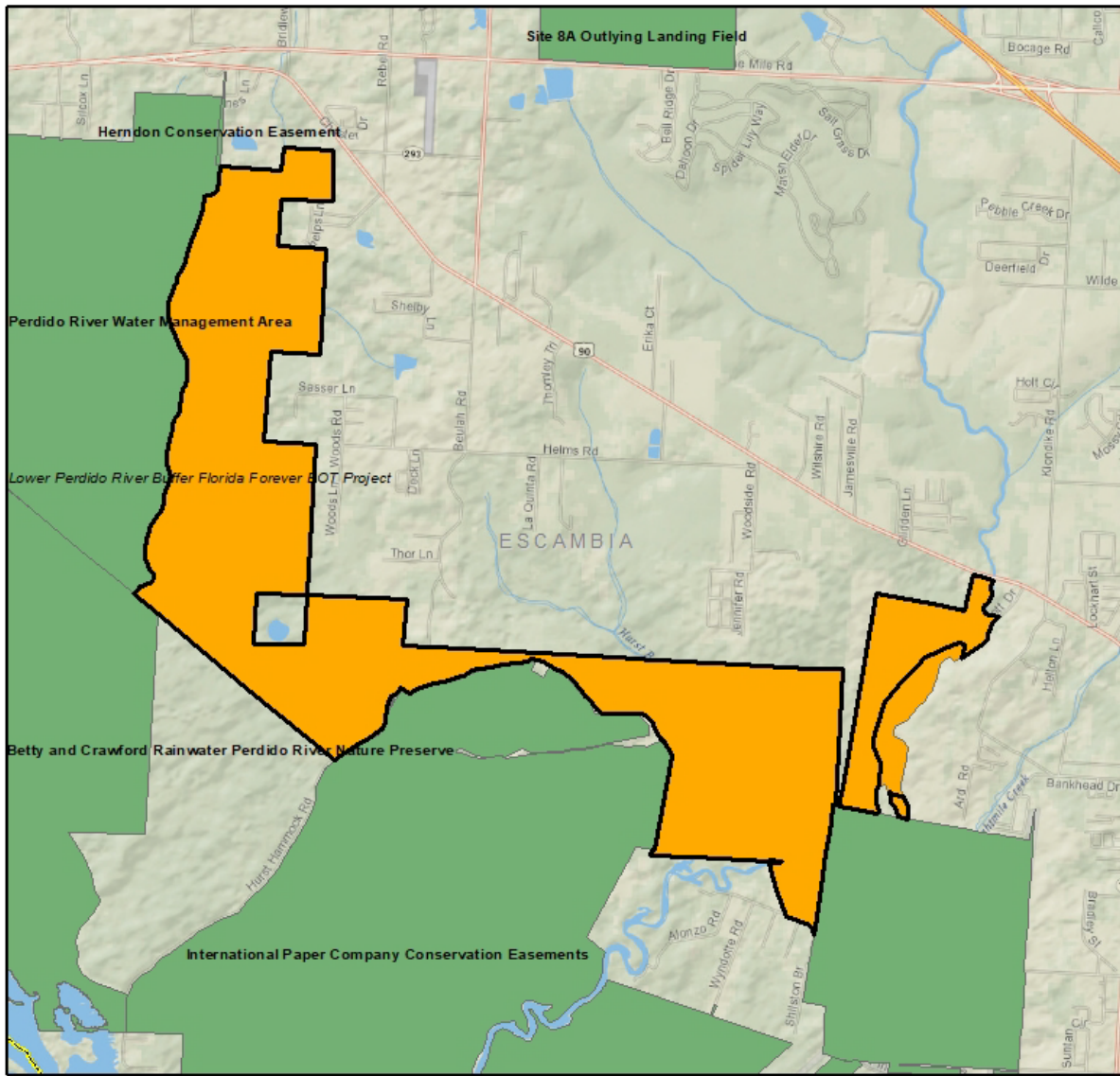
The FWC utilizes the Florida Cooperative Land Cover (CLC) GIS data layer for identification and mapping of land cover. The CLC is a cooperative effort between the FWC and the Florida Natural Areas Inventory (FNAI) to develop ecologically-based statewide land cover from existing sources and expert review of aerial photography. Land cover acreage estimates found in this document are based on GIS analysis of these data.

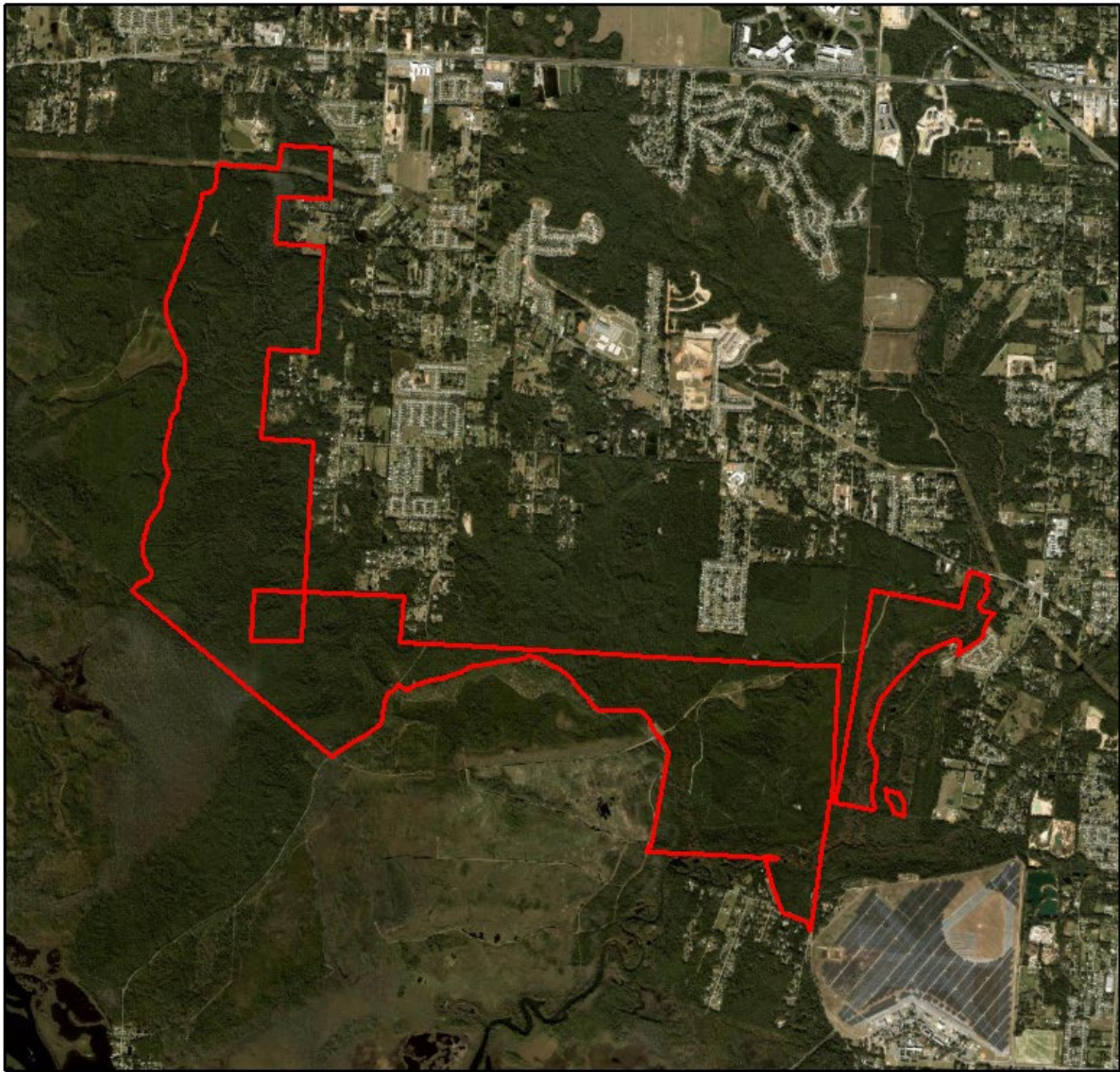
The FWC Florida Landscape Assessment Model (FLAM)¹ is a GIS model that determines the landscape value based on natural resources and fish and wildlife habitat. The FLAM ranks habitat from a 0-10; a rank of 10 being of greatest value.

Important fish and wildlife resource GIS data were queried using Environmental Resource Analysis GIS computer software. These data include the following GIS layers:

- FWC-FNAI Florida Cooperative Land Cover
- FWC Strategic Habitat Conservation Areas – Priority and Species
- Critical Lands and Waters Identification Project (CLIP) – Priority 1 and 2 – Terrestrial and Water
- CLIP – Landscape, Biodiversity, and Floodplain Resources
- Panther Location
- Panther Mortality
- Florida Panther Priority Habitat (Primary, Secondary, and Dispersal)
- Black Bear Range
- Rare Fish Locations/ Imperiled Waters
- Southern Bald Eagle Nest
- FWC Imperiled Species Richness

- FNAI Element Occurrences
- FNAI Suitable Habitat that Supports Species Known to Occur in the Vicinity
- Florida Department of Environmental Protection Surface Water Classification
- U.S. Fish and Wildlife Service (USFWS) - National Wetlands Inventory
- USFWS Critical Habitat
- Florida Geological Survey Springs
- Outstanding Florida Waters
- Areas of Critical State Concern





**Lower Perdido River Buffer
Florida Forever Project**

Escambia County
2,271 Remaining Acres



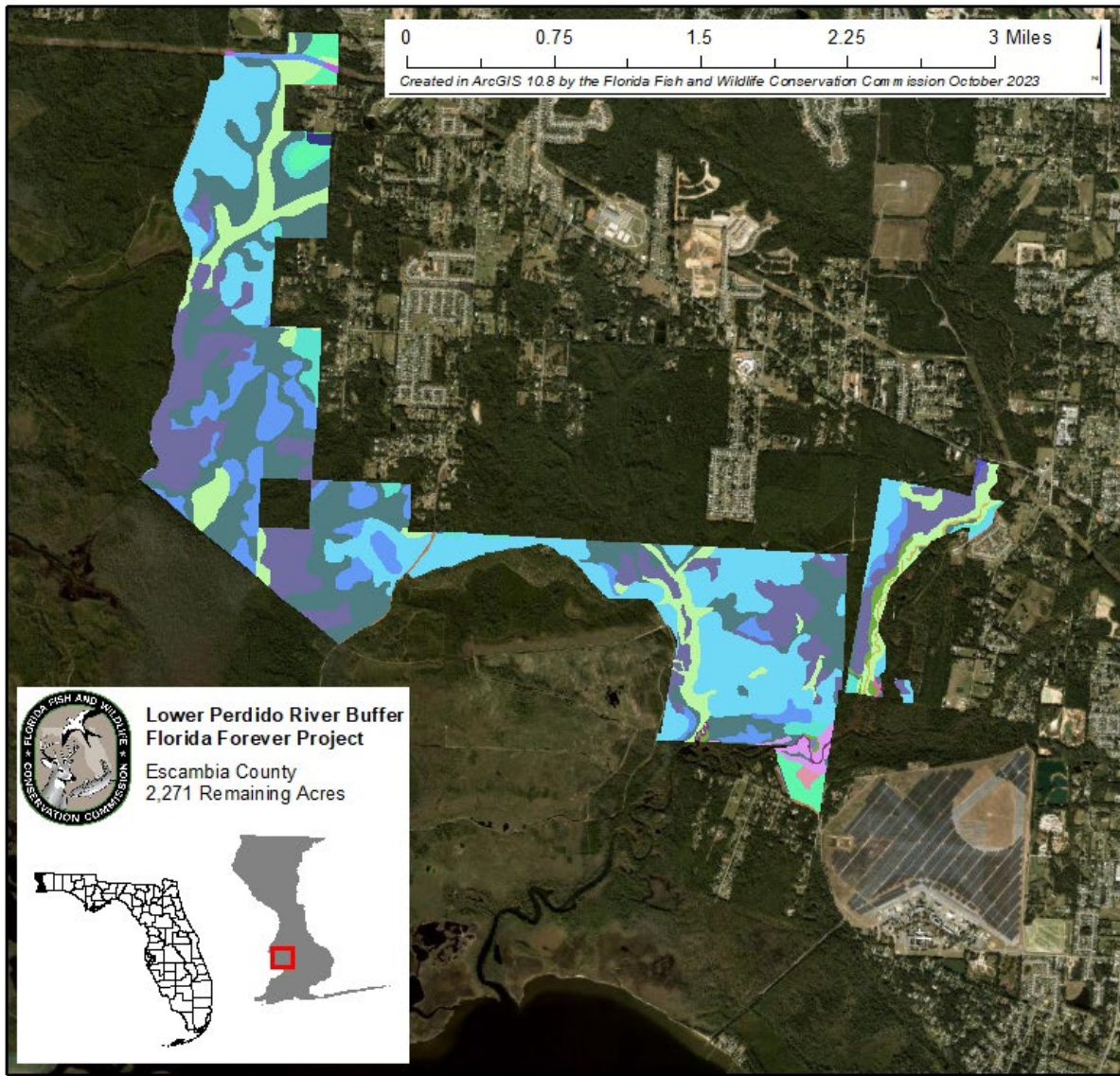
0 0.75 1.5 2.25 3 Miles

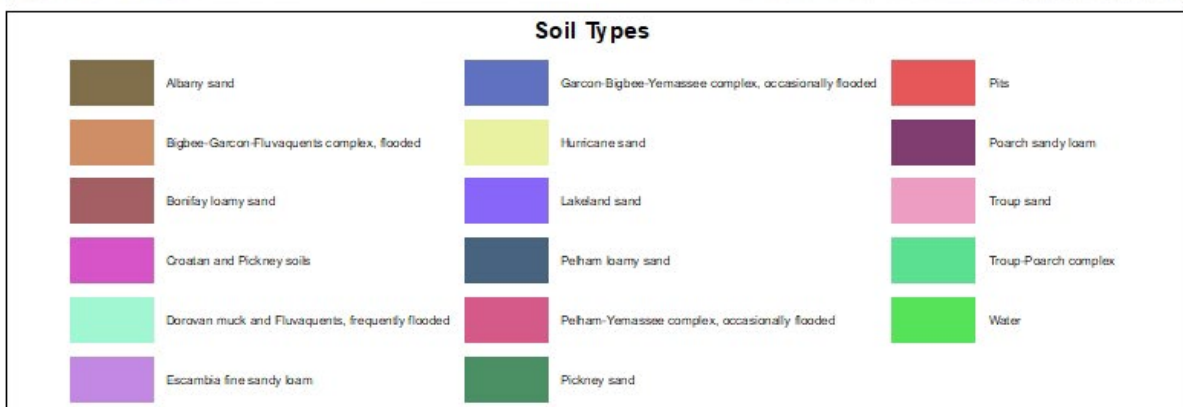
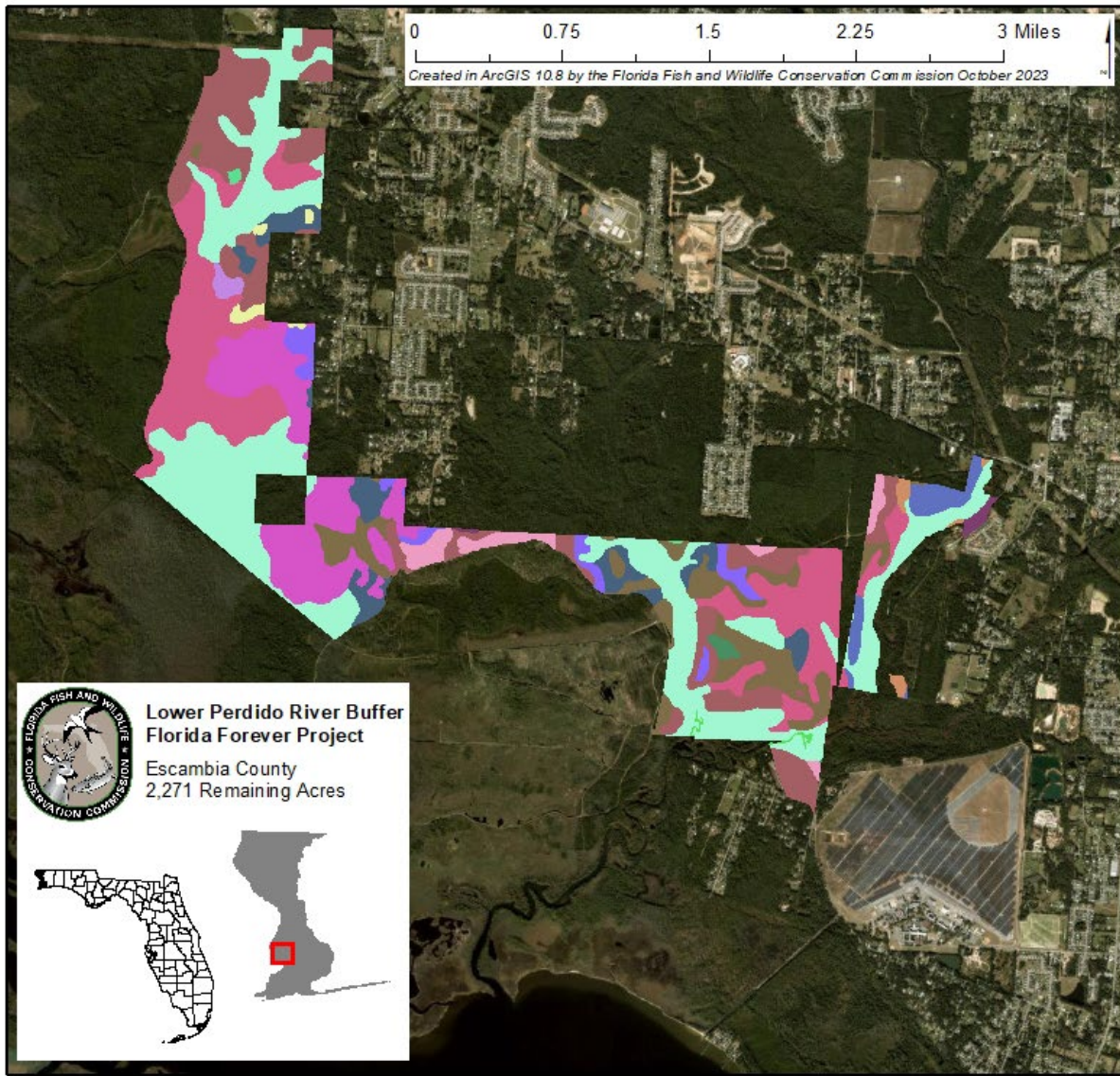
Created in ArcGIS 10.8 by the Florida Fish and Wildlife Conservation Commission October 2023

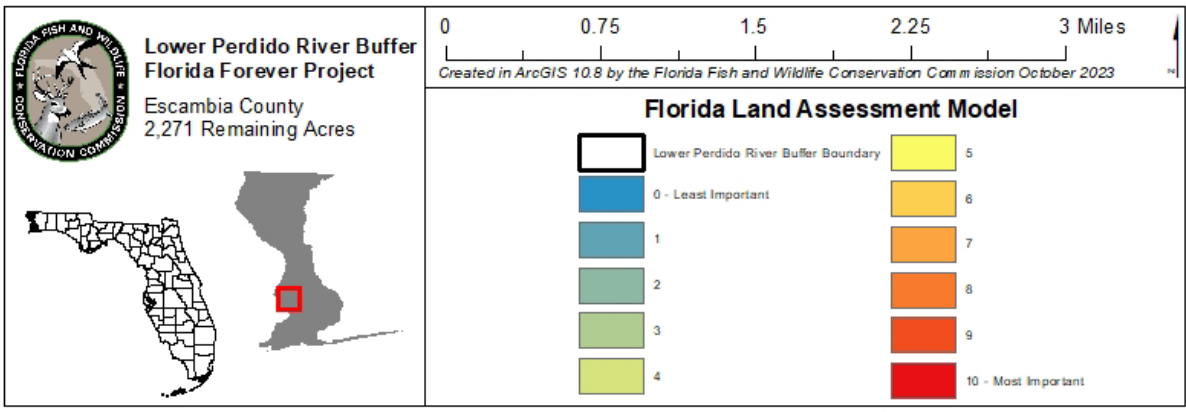
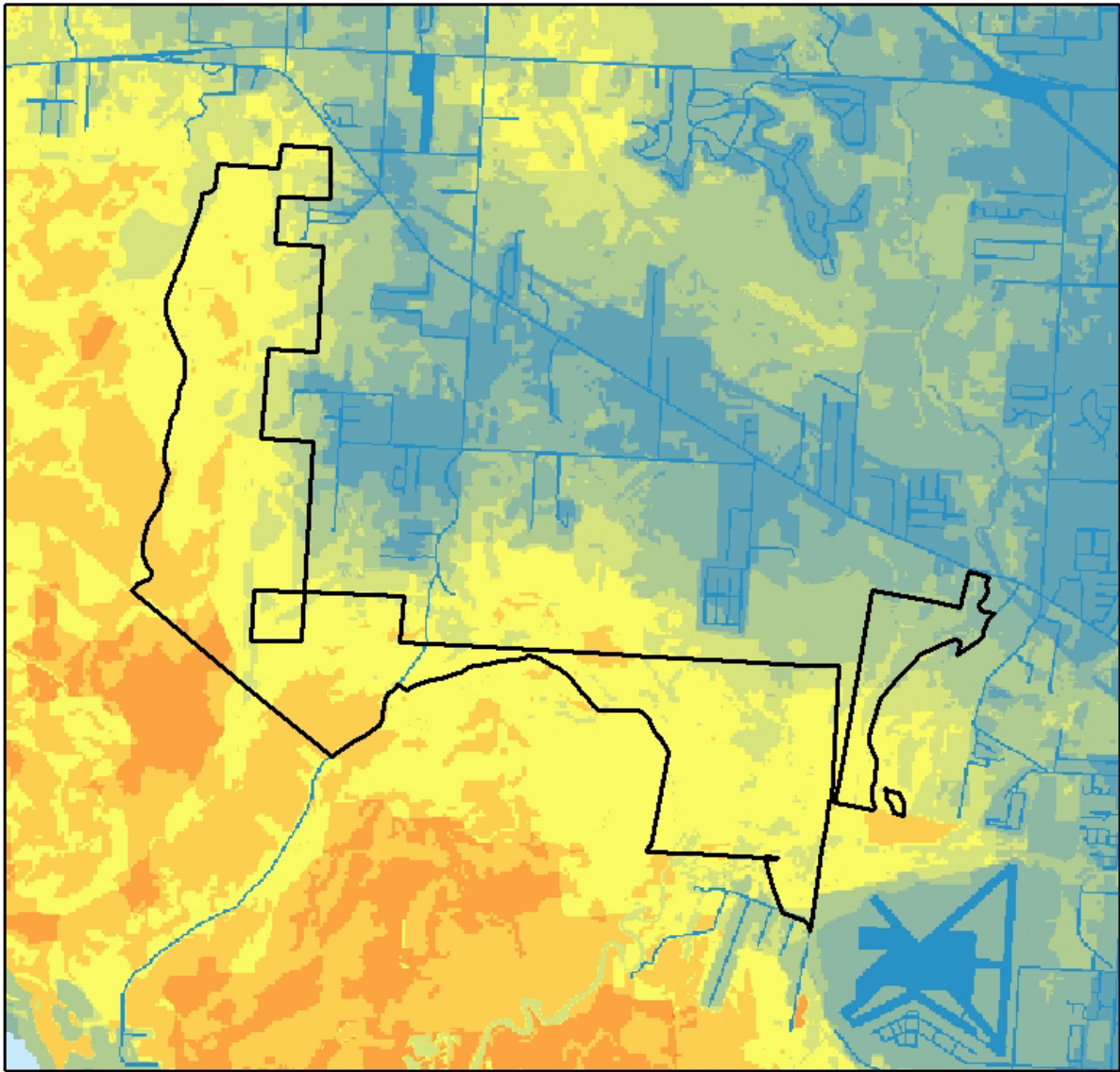
Aerial Imagery



Lower Perdido River Buffer Boundary







FWC Florida Landscape Assessment Model 2023		
	Value	Acres
	0	5.6
	1	0.0
	2	14.4
	3	155.6
	4	441.5
	5	1276.4
	6	358.2
	7	18.9
	8	0.0
	9	0.0
	10	0.0
Mean FLAM value =	4.8	

Comments:

¹ FWC has developed a GIS-based assessment tool that incorporates a wide variety of land cover and wildlife species data. These wildlife species include imperiled species and locally important species. Application of this model assists in the identification and conservation of important wildlife habitats. The FLAM ranks the Florida landscape based upon important natural resources and habitat needs of wildlife as a way to identify ecologically significant lands in the state, and to assess the potential impacts of land development projects on wildlife populations. The FLAM is provided as part of the FWC's continuing technical assistance to various local, regional, state, and federal agencies, and entities interested in wildlife needs and conservation in order to: (1) determine ways to avoid or minimize project impacts by evaluating alternative placements, alignments, and transportation corridors during early planning stages, (2) assess direct, secondary, and cumulative impacts to habitat and wildlife resources, and (3) help identify appropriate parcels for land conservation, and for wetland and upland habitat mitigation.

Environmental Resource Analysis

FWC Land Conservation and Planning

Analysis Shape Type: Polygon

Analysis Timestamp: 11082023 10:27:25

Shape Name: Unnamed polygon centered at -87.372718 °, 30.500079 °

Boundary Area: 2,270.52 acres

Buffer Area: 0 acres

Total Area: 2,270.52 acres

FWC Wildlife Data and Models

Cooperative Land Cover v3.6

Name - State	Code - State	Name - Site	Code - Site	Total Area (acres)	Percent of Area
Floodplain Swamp	2215	Freshwater Tidal Swamp	22151	19.56	0.86 %
Wet Flatwoods	2221	Hydric Pine Flatwoods	22211	626.69	27.6 %
High Intensity Urban	1822	Residential, Med. Density - 2-5 Dwelling Units/AC	18221	0.56	0.02 %
Riverine	4000	Riverine	4000	7.52	0.33 %
Estuarine	5000	Estuarine	5000	4.29	0.19 %
Improved Pasture	183313	Improved Pasture	183313	0.18	0.01 %
Tree Plantations	18333	Wet plantation	1833321	412.42	18.16 %
Transportation	1840	Transportation	1840	5.23	0.23 %
Cropland/Pasture	18331	Fallow Cropland	1833151	4.48	0.2 %
Rural	1830	Unimproved/Woodland Pasture	183314	0.06	0 %
Tree Plantations	18333	Coniferous plantation	183332	604.72	26.63 %
Lacustrine	3000	Lacustrine	3000	0.58	0.03 %
Rural	1830	Rural Open	1831	2.03	0.09 %
Utilities	1860	Utilities	1860	2.24	0.1 %
Mixed Hardwood-Coniferous	1400	Mixed Hardwood-Coniferous	1400	50.85	2.24 %
High Pine and Scrub	1200	Upland Coniferous	1230	53.32	2.35 %
Mesic Flatwoods	1311	Mesic Flatwoods	1311	0.02	0 %
Extractive	1870	Extractive	1870	0.00	0 %
Wet Flatwoods	2221	Wet Flatwoods	2221	4.94	0.22 %
Freshwater Forested Wetlands	2200	Mixed Hardwood-Coniferous Swamps	2240	235.96	10.39 %
Cypress	2211	Cypress	2211	17.46	0.77 %
Prairies and Bogs	2110	Mixed Scrub-Shrub Wetland	2112	216.20	9.52 %
Marshes	2120	Marshes	2120	1.21	0.05 %
TOTAL:				2,270.52	100 %

Critical Lands and Waters Identification Project (CLIP) Priority 1 and 2 - Terrestrial and Waters

CLIP Priority	Total Area (acres)	Percent of Area
All other cells	939.46	41.38 %
CLIP P1 in terrestrial	59.14	2.6 %
CLIP P2 in submerged lands/state waters	0.55	0.02 %
CLIP P2 in terrestrial	1,266.68	55.79 %
TOTAL:	2,265.82	99.79 %

CLIP- Landscape Category

Priority	Total Area (acres)	Percent of Area
0	0.23	0.01 %
1	6.76	0.3 %
2	2,263.52	99.69 %
TOTAL:	2,270.52	100 %

CLIP- Biodiversity Category

Priority	Total Area (acres)	Percent of Area
0	13.54	0.6 %
1	60.74	2.68 %
2	1,203.50	53.01 %
3	34.50	1.52 %
4	958.23	42.2 %
TOTAL:	2,270.52	100 %

Priority FWC Strategic Habitat Conservation Areas 2021

Priority	Total Area (acres)	Percent of Area
0	1,458.56	64.24 %
2	2.59	0.11 %
5	809.37	35.65 %
TOTAL:	2,270.52	100 %

FWC Strategic Habitat Conservation Areas 2009

Species 1	Species 2	Species 3	Species 4	Species 5	Species 6	Total Area (acres)		Percent of Area	
Cooper's hawk						819.12		36.08 %	
TOTAL:						819.12		36.08 %	
Panther location									
No Records Found									
Panther mortality									
No Records Found									
Panther Priority Habitat									
No Records Found									
Bear Range									
Bear Range		Total Area (acres)				Percent of Area			
Common		2,270.52				100 %			
TOTAL:		2,270.52				100 %			
Rare Fish									
No Records Found									
Rare Fish Imperiled Waters									
COMMON NAME		SCIENTIFIC NAME			Total Area (acres)		Percent of Area		
Saltmarsh topminnow		Fundulus jenkinsi			928.26		40.88 %		
Speckled darter		Etheostoma stigmaeum			7.47		0.33 %		
TOTAL:					935.73		41.21 %		
Southern bald eagle nest									
No Records Found									
Imperiled Species Richness									
Number of Species			Total Area (acres)			Percent of Area			
0			55.45			2.44 %			
1			0.02			0 %			
3			5.84			0.26 %			
5			1,500.57			66.09 %			
6			389.11			17.14 %			
7			319.53			14.07 %			
TOTAL:			2,270.52			100 %			

Florida Natural Areas Inventory Data										
Element Occurrences										
COMMON NAME	SCIENTIFIC NAME	GLOBAL RANK	STATE RANK	FWC STATUS	FEDERAL STATUS	EO Rank	Last Observation	Total Area (acres)	Percent of Area	
Escambia Crayfish	Procambarus escambiensis	G2	S1S2	N	N	E	2004-03-04	0.02	0 %	
Harper's yellow-eyed grass	Xyris scabrifolia	G3	S3	T	N	H	1957-09-28	801.04	35.28 %	
primrose-flowered butterwort	Pinguicula primuliflora	G3G4	S3	E	N	B?	2010-04-21	0.78	0.03 %	
ZZ	Seepage slope	G2	S2	N	N	C	1996-06-13	0.08	0 %	
TOTAL:								801.91	35.32 %	
Suitable Habitat that Supports Species Known to Occur in the Vicinity										
COMMON NAME		SCIENTIFIC NAME			Total Area (acres)		Percent of Area			
Alligator Snapping Turtle		Macrochelys temminckii			510.29		22.47 %			
Berry's Skipper		Euphyes berryi			493.19		21.72 %			
Escambia Crayfish		Procambarus escambiensis			445.00		19.6 %			
Hessel's Hairstreak		Callophrys hesseli			243.58		10.73 %			
hummingbird flower		Macranthera flammea			99.74		4.39 %			
Southern Hognose Snake		Heterodon simus			136.98		6.03 %			
TOTAL:					1,928.78		84.95 %			

USFWS										
Critical Habitat										
No Records Found										

Area of Critical State Concern										
Apalachicola										
No Records Found										
Big Cypress										
No Records Found										
Green Swamp										
No Records Found										
Key West										

No Records Found					
Lower Keys					
No Records Found					
Upper Keys					
No Records Found					
Florida Ecological Greenways Network					
Wildlife Corridor Classification					
Priority Level	Total Area (acres)			Percent of Area	
5	2,269.63			99.96 %	
TOTAL:	2,269.63			99.96 %	
Water Resources					
FDEP Surface Water Classification					
Waterbody Name	Water Type	Water Basin	Classification	Total Area (acres)	Percent of Area
PERDIDO RIVER (SOUTH MARINE)	ESTUARY	462A	3M	3.39	0.15 %
PERDIDO RIVER (MIDDLE C)	STREAM	462C	3F	8.37	0.37 %
BEULAH DRAIN	STREAM	616	3F	450.74	19.85 %
BLACK LAKE DRAIN	STREAM	696A	3F	880.59	38.78 %
ELEVENMILE CREEK	STREAM	489	3F	578.06	25.46 %
HURST BRANCH	STREAM	681	3F	349.37	15.39 %
TOTAL:				2,270.52	100 %
Outstanding Florida Waters					
Name	OFW Type	Total Area (acres)		Percent of Area	
Perdido River	Special	527.02		23.21 %	
TOTAL:		527.02		23.21 %	
Florida Geological Survey Springs					
No Records Found					
National Wetlands Inventory					
Wetland Type	Wetland Code		Total Area (acres)	Percent of Area	
FRESHWATER FORESTED/SHRUB WETLAND	PFO1F		3.32	0.15 %	
FRESHWATER FORESTED/SHRUB WETLAND	PFO1/4C		35.65	1.57 %	
FRESHWATER FORESTED/SHRUB WETLAND	PFO1/3C		158.06	6.96 %	
FRESHWATER EMERGENT WETLAND	PEM1C		8.82	0.39 %	
FRESHWATER EMERGENT WETLAND	PEM1A		7.44	0.33 %	
ESTUARINE AND MARINE DEEPWATER	E1UBL		1.64	0.07 %	
FRESHWATER FORESTED/SHRUB WETLAND	PFO4/3C		53.90	2.37 %	
FRESHWATER FORESTED/SHRUB WETLAND	PFO4/EM1A		9.58	0.42 %	
FRESHWATER FORESTED/SHRUB WETLAND	PFO4/1B		140.88	6.2 %	
FRESHWATER FORESTED/SHRUB WETLAND	PFO3/4B		6.03	0.27 %	
FRESHWATER FORESTED/SHRUB WETLAND	PFO3/EM1B		11.11	0.49 %	
FRESHWATER FORESTED/SHRUB WETLAND	PFO3/1C		29.30	1.29 %	
FRESHWATER FORESTED/SHRUB WETLAND	PFO2F		36.58	1.61 %	
FRESHWATER FORESTED/SHRUB WETLAND	PFO2C		1.12	0.05 %	
FRESHWATER FORESTED/SHRUB WETLAND	PFO1C		113.67	5.01 %	
FRESHWATER FORESTED/SHRUB WETLAND	PFO1B		14.42	0.64 %	
FRESHWATER FORESTED/SHRUB WETLAND	PFO1/EM1F		6.82	0.3 %	
FRESHWATER FORESTED/SHRUB WETLAND	PFO4C		14.78	0.65 %	
FRESHWATER FORESTED/SHRUB WETLAND	PFO4Bg		4.43	0.2 %	
FRESHWATER FORESTED/SHRUB WETLAND	PFO4/SS3C		30.53	1.34 %	
FRESHWATER FORESTED/SHRUB WETLAND	PFO4B		45.23	1.99 %	
FRESHWATER FORESTED/SHRUB WETLAND	PFO4A		1.07	0.05 %	
FRESHWATER FORESTED/SHRUB WETLAND	PFO4/SS1C		8.03	0.35 %	
FRESHWATER POND	PUBHx		0.42	0.02 %	
FRESHWATER POND	PUBH		1.49	0.07 %	
FRESHWATER FORESTED/SHRUB WETLAND	PSS4B		0.03	0 %	
FRESHWATER FORESTED/SHRUB WETLAND	PSS6C		7.24	0.32 %	
FRESHWATER FORESTED/SHRUB WETLAND	PSS3/FO4B		0.19	0.01 %	
FRESHWATER POND	PUBF		0.83	0.04 %	
FRESHWATER FORESTED/SHRUB WETLAND	PSS3B		5.11	0.22 %	
FRESHWATER FORESTED/SHRUB WETLAND	PSS3/FO3B		5.78	0.25 %	
FRESHWATER FORESTED/SHRUB WETLAND	PSS3/4B		19.21	0.85 %	
FRESHWATER FORESTED/SHRUB WETLAND	PSS3/EM1B		33.93	1.49 %	
FRESHWATER FORESTED/SHRUB WETLAND	PSS1/EM1C		11.19	0.49 %	
RIVERINE	R5UBH		1.87	0.08 %	
FRESHWATER FORESTED/SHRUB WETLAND	PFO4/1C		142.49	6.28 %	
FRESHWATER FORESTED/SHRUB WETLAND	PFO4/3B		157.49	6.94 %	
RIVERINE	R2UBH		6.56	0.29 %	
TOTAL:			1,136.25	50.04 %	
Priority Floodplain Resources					

Priority	Total Area (acres)	Percent of Area
0	1,804.53	79.48 %
5	76.89	3.39 %
3	77.05	3.39 %
4	276.37	12.17 %
2	35.67	1.57 %
TOTAL:	2,270.52	100 %