

**Florida Fish and Wildlife Conservation Commission
Division of Habitat and Species Conservation
Land Conservation and Planning
Garcon Ecosystem 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 **Garcon Ecosystem** 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

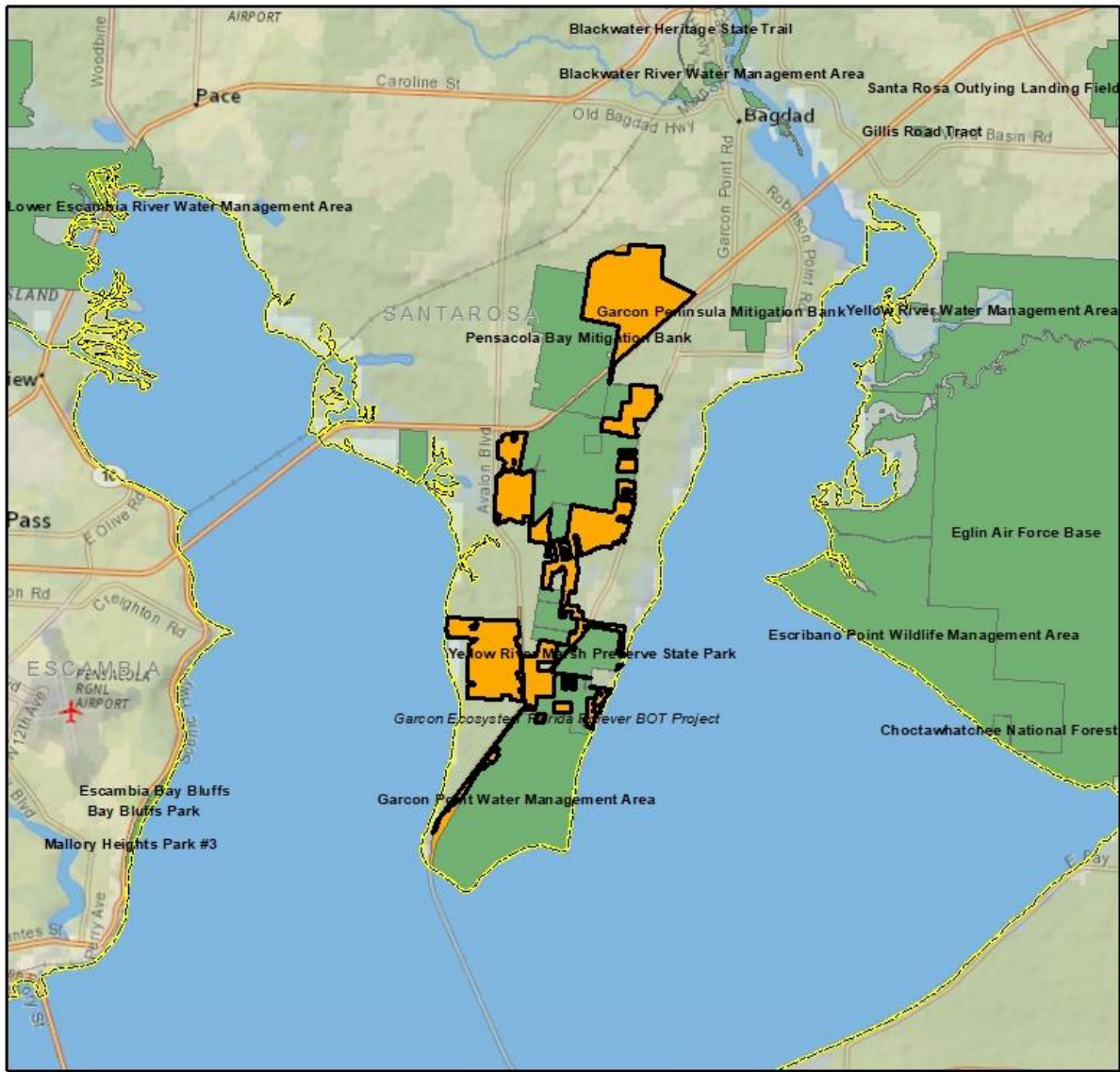
The FWC utilizes the Florida Cooperative Land Cover (CLC) GIS data layer for identification and mapping of land cover. The CLC is a cooperative effort between the FWC and the Florida Natural Areas Inventory (FNAI) to develop ecologically-based statewide land cover from existing sources and expert review 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



**Garcon Ecosystem
Florida Forever Project**
Santa Rosa County
3,098 Remaining Acres



0 2 4 6 8 Miles

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

Vicinity Map

- Garcon Ecosystem Boundary
- County Boundaries
- Conservation Lands
- Florida Forever Projects



Garcon Ecosystem
Florida Forever Project
Santa Rosa County
3,098 Remaining Acres

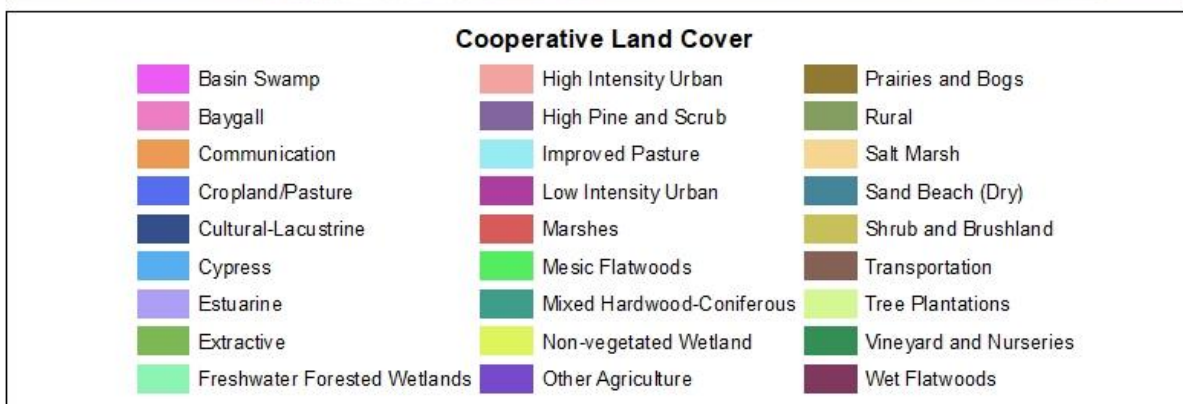
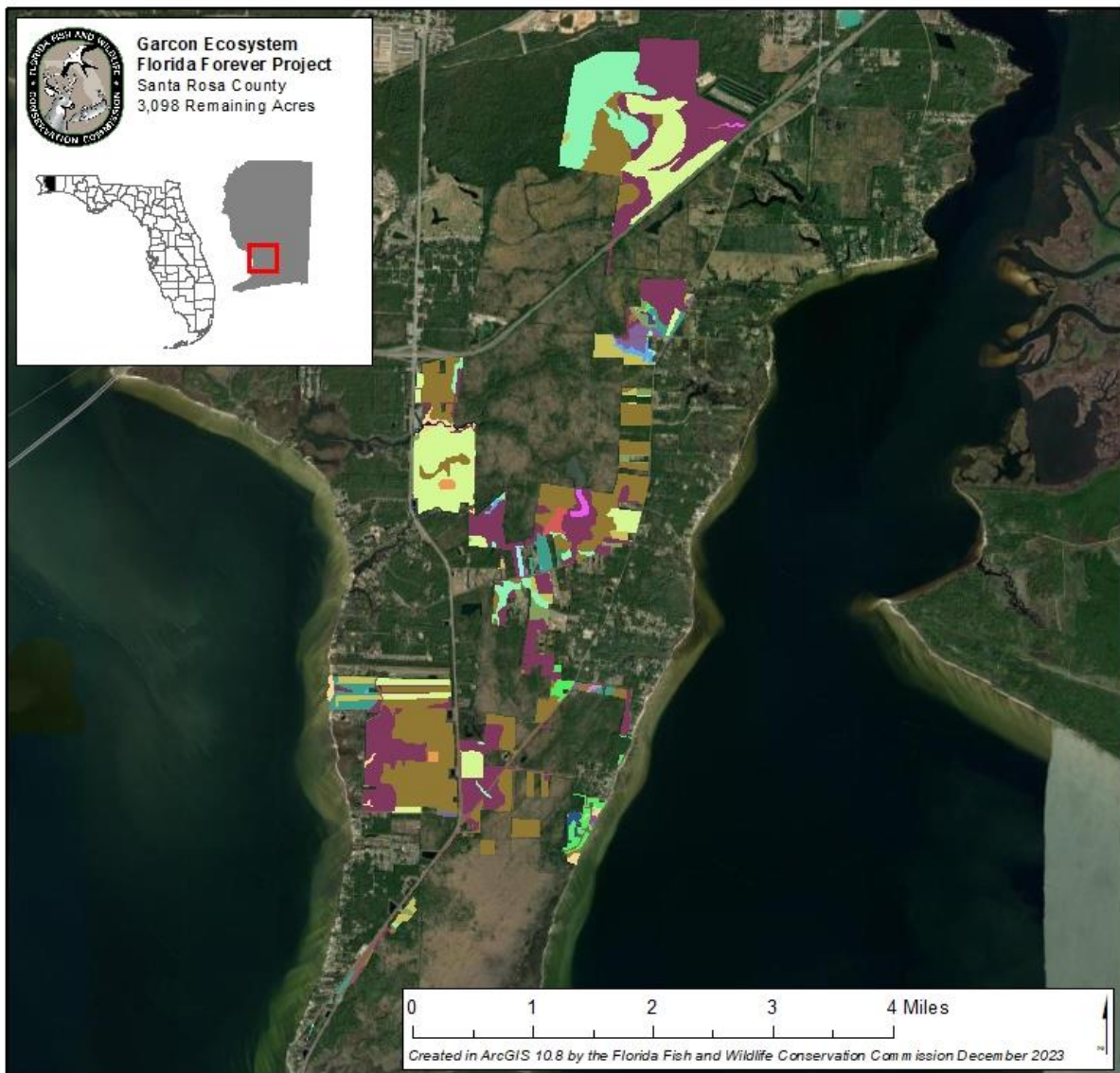


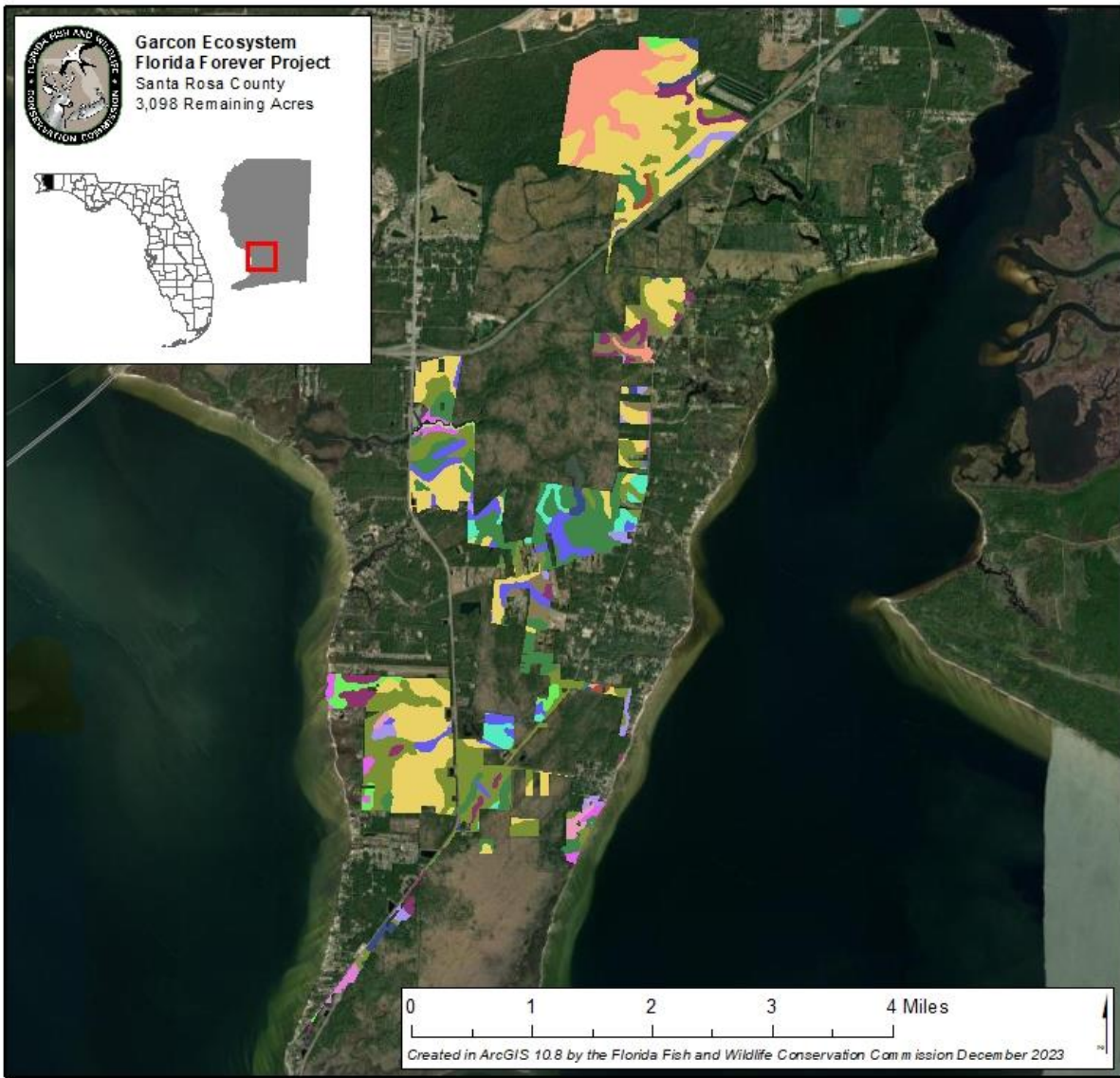
0 1 2 3 4 Miles

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

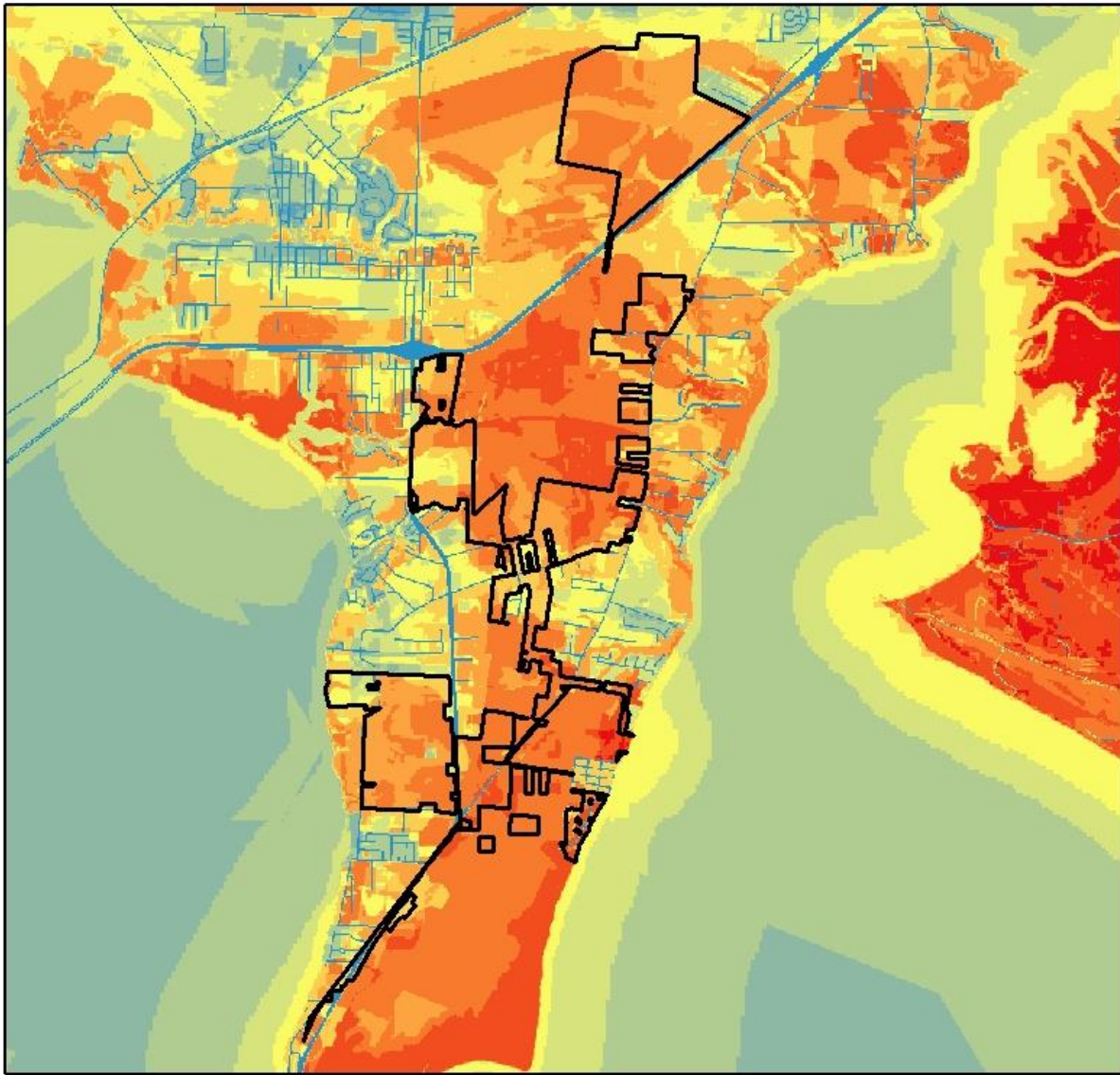
Aerial Imagery

 Garcon Ecosystem Boundary





Soil Types		
 Albany loamy sand	 Leon sand	 Pactolus loamy sand
 Bohicket and Handsboro soils	 Lynchburg fine sandy loam	 Pits
 Dorovan-Pamlico association	 Meadowbrook fine sand	 Rains fine sandy loam
 Garcon loamy fine sand	 Mulat loamy fine sand	 Rutlege loamy sand
 Goldhead fine sand	 Orangeburg sandy loam	 Water
 Johns fine sandy loam	 Ortega sand	 Waters of the Gulf of Mexico



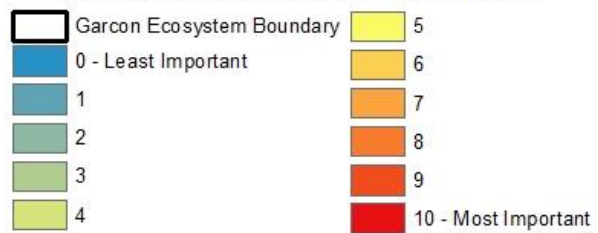
Garcon Ecosystem
Florida Forever Project
 Santa Rosa County
 3,098 Remaining Acres



0 1 2 3 4 Miles

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Florida Landscape Assessment Model



FWC Florida Landscape Assessment Model 2019		
	Value	Acres
	0	83.2
	1	0.0
	2	0.0
	3	13.2
	4	35.1
	5	147.2
	6	316.2
	7	973.9
	8	1267.5
	9	261.6
	10	0.2
Mean FLAM value =	7.1	

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: 11022023 11:11:23

Shape Name: Unnamed polygon centered at -87.070642 °, 30.511779 °

Boundary Area: 3098.49 acres

Buffer Area: 0 acres

Total Area: 3098.49 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
High Intensity Urban	1822	Commercial and Services	18223	0.14	0 %
High Intensity Urban	1822	Residential, Med. Density - 2-5 Dwelling Units/AC	18221	0.05	0 %
Wet Flatwoods	2221	Hydric Pine Flatwoods	22211	851.06	27.47 %
Basin Swamp	22132	Basin Swamp	22132	14.07	0.45 %
Estuarine	5000	Estuarine	5000	1.05	0.03 %
Cultural - Lacustrine	3200	Artificial Impoundment/Reservoir	3220	14.11	0.46 %
Low Intensity Urban	1821	Low Structure Density	18212	3.28	0.11 %
Salt Marsh	5240	Salt Marsh	5240	28.06	0.91 %
Baygall	2231	Bay Swamp	22311	0.10	0 %
Cropland/Pasture	18331	Fallow Cropland	1833151	0.68	0.02 %
Other Agriculture	18335	Specialty Farms	183352	0.18	0.01 %
Transportation	1840	Transportation	1840	83.00	2.68 %
Tree Plantations	18333	Wet plantation	1833321	371.26	11.98 %
Rural	1830	Unimproved/Woodland Pasture	183314	0.59	0.02 %
Improved Pasture	183313	Improved Pasture	183313	7.14	0.23 %
Vineyard and Nurseries	18334	Ornamentals	183343	3.12	0.1 %
Tree Plantations	18333	Coniferous plantation	183332	116.88	3.77 %
Non-vegetated Wetland	2300	Non-vegetated Wetland	2300	0.74	0.02 %
Rural	1830	Rural Open	1831	52.24	1.69 %
Sand Beach (Dry)	1670	Sand Beach (Dry)	1670	2.13	0.07 %
Communication	1850	Communication	1850	11.32	0.37 %
Rural	1830	Rural Structures	1832	0.42	0.01 %
Mesic Flatwoods	1311	Mesic Flatwoods	1311	47.76	1.54 %
High Pine and Scrub	1200	Upland Coniferous	1230	29.03	0.94 %
Shrub and Brushland	1500	Shrub and Brushland	1500	88.98	2.87 %
Mixed Hardwood-Coniferous	1400	Mixed Hardwood-Coniferous	1400	86.64	2.8 %
Extractive	1870	Extractive	1870	0.58	0.02 %
Baygall	2231	Baygall	2231	2.45	0.08 %
Wet Flatwoods	2221	Wet Flatwoods	2221	97.05	3.13 %
Freshwater Forested Wetlands	2200	Mixed Hardwood-Coniferous Swamps	2240	302.72	9.77 %
Freshwater Forested Wetlands	2200	Mixed Wetland Hardwoods	2233	11.95	0.39 %
Prairies and Bogs	2110	Mixed Scrub-Shrub Wetland	2112	482.78	15.58 %
Prairies and Bogs	2110	Wet Prairie	2111	351.93	11.36 %
Cypress	2211	Cypress	2211	16.85	0.54 %
Marshes	2120	Marshes	2120	18.15	0.59 %
TOTAL:				3,098.49	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	201.57	6.51 %
CLIP P1 in submerged lands/state waters	14.83	0.48 %
CLIP P1 in terrestrial	2,591.50	83.64 %
CLIP P2 in submerged lands/state waters	1.09	0.04 %
CLIP P2 in terrestrial	275.56	8.89 %
TOTAL:	3,084.55	99.55 %

CLIP- Landscape Category

Priority	Total Area (acres)	Percent of Area
0	49.52	1.6 %
1	898.26	28.99 %
2	2,150.71	69.41 %
TOTAL:	3,098.49	100 %

CLIP- Biodiversity Category

Priority	Total Area (acres)	Percent of Area
0	82.08	2.65 %

1	16.78	0.54 %					
2	754.87	24.36 %					
3	144.79	4.67 %					
4	1,090.22	35.19 %					
5	1,009.75	32.59 %					
TOTAL:	3,098.49	100 %					
Priority FWC Strategic Habitat Conservation Areas 2021							
Priority	Total Area (acres)	Percent of Area					
0	2,606.37	84.12 %					
2	17.47	0.56 %					
3	0.05	0 %					
5	474.60	15.32 %					
TOTAL:	3,098.49	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						469.79	15.16 %
TOTAL:						469.79	15.16 %
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	
Frequent	3,094.56					99.87 %	
TOTAL:	3,094.56					99.87 %	
Rare Fish							
COMMON NAME			SCIENTIFIC NAME			# Features	
Saltmarsh topminnow			Fundulus jenkinsi			4	
TOTAL:						4	
Rare Fish Imperiled Waters							
COMMON NAME		SCIENTIFIC NAME			Total Area (acres)		Percent of Area
Alligator gar		Atractosteus spatula			0.10		0 %
Gulf sturgeon		Acipenser oxyrhynchus desotoi			0.10		0 %
Saltmarsh topminnow		Fundulus jenkinsi			3,098.49		100 %
TOTAL:					3,098.68		100.01 %
Southern bald eagle nest							
No Records Found							
Imperiled Species Richness							
Number of Species		Total Area (acres)			Percent of Area		
0		160.89			5.19 %		
1		22.96			0.74 %		
2		7.75			0.25 %		
3		453.35			14.63 %		
4		312.30			10.08 %		
5		1,440.97			46.51 %		
6		539.88			17.42 %		
7		160.39			5.18 %		
TOTAL:		3,098.49			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	
DATA SENSITIVE ELEMENT OCCURRENCE - contact FNAI for more information	DATA SENSITIVE ELEMENT OCCURRENCE - contact FNAI for more information	G5	S2S3	N	N	BD	2007-09-28	603.77	19.49 %	
DATA SENSITIVE ELEMENT OCCURRENCE - contact FNAI for more information	DATA SENSITIVE ELEMENT OCCURRENCE - contact FNAI for more information	G2	S2	N	N	BD	2007-09-28	603.77	19.49 %	
Florida Black Bear	Ursus americanus floridanus	G5T4	S4	N	N	BC	2022-07-06	3,094.58	99.87 %	
Louisiana yellow-eyed grass	Xyris louisianica	G2G3	S1	N	N	A	1989-09-22	2.81	0.09 %	
Louisiana yellow-eyed grass	Xyris louisianica	G2G3	S1	N	N	E	1990-07-09	0.36	0.01 %	
Panhandle lily	Lilium iridollae	G3	S3	E	UR	C	1992-11-18	2.49	0.08 %	
pond rush	Cladium mariscoides	G5	S1	N	N	A	1992-11-17	2.81	0.09 %	
pond rush	Cladium mariscoides	G5	S1	N	N	AC	2006-08-14	0.48	0.02 %	

Reticulated Flatwoods Salamander	Ambystoma bishopi	G2	S1	FE	E	BC	1993-01-14	1.98	0.06 %
Saltmarsh Topminnow	Fundulus jenkinsi	G3	S2	ST	UR	BC	2008-03-12	0.25	0.01 %
yellow fringeless orchid	Platanthera integra	G3G4	S2	E	N	A	1989-09-22	0.62	0.02 %
ZZ	Bottomland forest	G4	S3	N	N	B	2004	4.24	0.14 %
ZZ	Dome swamp	G4	S4	N	N	A	2004	19.76	0.64 %
ZZ	Estuarine mollusk reef	G3	S3	N	N	A	1983-09-15	26.78	0.86 %
ZZ	Mesic flatwoods	G4	S4	N	N	BC	2004	15.95	0.51 %
ZZ	Wet prairie	G2	S2	N	N	A	2004	916.23	29.57 %
ZZ	Wet prairie	G2	S2	N	N	A	ZZ	225.94	7.29 %
TOTAL:								5,522.82	178.24 %

Suitable Habitat that Supports Species Known to Occur in the Vicinity

COMMON NAME	SCIENTIFIC NAME	Total Area (acres)	Percent of Area
Berry's Skipper	Euphyes berryi	1,038.20	33.51 %
Curtiss' sandgrass	Calamovilfa curtissii	486.66	15.71 %
Gulf Sturgeon	Acipenser oxyrinchus desotoi	840.12	27.11 %
Louisiana yellow-eyed grass	Xyris louisianica	252.92	8.16 %
Reticulated Flatwoods Salamander	Ambystoma bishopi	616.85	19.91 %
Saltmarsh Topminnow	Fundulus jenkinsi	1,643.21	53.03 %
spring hill flax	Linum macrocarpum	0.00	0 %
TOTAL:		4,877.95	157.43 %

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	3,085.41	99.58 %
TOTAL:	3,085.41	99.58 %

Water Resources

FDEP Surface Water Classification

Waterbody Name	Water Type	Water Basin	Classification	Total Area (acres)	Percent of Area
SANDY POINT BAYOU	STREAM	534	3F	26.19	0.85 %
JAKES BAYOU (MARINE PORTION)	ESTUARY	537	3M	38.11	1.23 %
JAKES BAYOU (FRESH PORTION)	STREAM	537A	3F	777.37	25.09 %
MULATTO BAYOU	ESTUARY	539	3M	84.21	2.72 %
EAST BAY	ESTUARY	548H	2	0.00	0 %
WHITEOAK BAYOU	ESTUARY	635	3M	168.44	5.44 %
DIRECT RUNOFF TO BAY	STREAM	637	3F	62.49	2.02 %
INDIAN BAYOU	ESTUARY	649	3M	344.49	11.12 %
DIRECT RUNOFF TO BAY	STREAM	669	3F	1,389.45	44.84 %
TROUT BAYOU	ESTUARY	694	3M	207.73	6.7 %
TOTAL:				3,098.49	100 %

Outstanding Florida Waters

Name	OFW Type	Total Area (acres)	Percent of Area
YELLOW RIVER MARSH AQUATIC PRESERVE	Aquatic Preserve	1.34	0.04 %
TOTAL:		1.34	0.04 %

Florida Geological Survey Springs

No Records Found

National Wetlands Inventory			
Wetland Type	Wetland Code	Total Area (acres)	Percent of Area
FRESHWATER FORESTED/SHRUB WETLAND	PFO1/4C	47.11	1.52 %
FRESHWATER FORESTED/SHRUB WETLAND	PFO1/2C	9.88	0.32 %
FRESHWATER EMERGENT WETLAND	PEM1Bd	137.79	4.45 %
FRESHWATER EMERGENT WETLAND	PEM1C	9.58	0.31 %
FRESHWATER EMERGENT WETLAND	PEM1/SS4B	4.64	0.15 %
FRESHWATER EMERGENT WETLAND	PEM1B	213.31	6.88 %
ESTUARINE AND MARINE WETLAND	E2EM1P	22.16	0.72 %
ESTUARINE AND MARINE WETLAND	E2USP	1.03	0.03 %
FRESHWATER FORESTED/SHRUB WETLAND	PFO4/1B	323.39	10.44 %
FRESHWATER FORESTED/SHRUB WETLAND	PFO2/EM1Cd	9.83	0.32 %
FRESHWATER FORESTED/SHRUB WETLAND	PFO2C	23.56	0.76 %
FRESHWATER FORESTED/SHRUB WETLAND	PFO2/1F	4.56	0.15 %
FRESHWATER FORESTED/SHRUB WETLAND	PFO2F	12.68	0.41 %
FRESHWATER FORESTED/SHRUB WETLAND	PFO4/SS3B	52.80	1.7 %
FRESHWATER FORESTED/SHRUB WETLAND	PFO4B	491.05	15.85 %
FRESHWATER FORESTED/SHRUB WETLAND	PFO4/EM1B	185.27	5.98 %
FRESHWATER POND	PUBHx	9.44	0.3 %
FRESHWATER FORESTED/SHRUB WETLAND	PSS4/EM1Bd	474.78	15.32 %
FRESHWATER FORESTED/SHRUB WETLAND	PSS3B	5.98	0.19 %
FRESHWATER FORESTED/SHRUB WETLAND	PSS4/EM1B	199.96	6.45 %
FRESHWATER FORESTED/SHRUB WETLAND	PSS4B	48.95	1.58 %
FRESHWATER FORESTED/SHRUB WETLAND	PSS2F	6.67	0.22 %
FRESHWATER FORESTED/SHRUB WETLAND	PSS1/4C	7.43	0.24 %
FRESHWATER FORESTED/SHRUB WETLAND	PSS1C	8.36	0.27 %
FRESHWATER FORESTED/SHRUB WETLAND	PSS2/1C	7.59	0.24 %
FRESHWATER FORESTED/SHRUB WETLAND	PSS2/1F	10.65	0.34 %
RIVERINE	R5UBH	0.39	0.01 %
RIVERINE	R4SBC	0.12	0 %
FRESHWATER FORESTED/SHRUB WETLAND	PFO4/1Bd	17.03	0.55 %
FRESHWATER EMERGENT WETLAND	PEM1F	4.63	0.15 %
FRESHWATER FORESTED/SHRUB WETLAND	PSS4Bd	86.61	2.8 %
ESTUARINE AND MARINE WETLAND	E2USM	5.19	0.17 %
ESTUARINE AND MARINE DEEPWATER	E1UBL	1.73	0.06 %
ESTUARINE AND MARINE WETLAND	E2EM1N	4.26	0.14 %
FRESHWATER FORESTED/SHRUB WETLAND	PFO2/3C	0.73	0.02 %
FRESHWATER EMERGENT WETLAND	PEM1/SS4Bd	137.19	4.43 %
	TOTAL:	2,586.34	83.47 %
Priority Floodplain Resources			
Priority	Total Area (acres)	Percent of Area	
2	170.63	5.51 %	
3	203.76	6.58 %	
4	17.69	0.57 %	
0	2,699.31	87.12 %	
1	7.09	0.23 %	
TOTAL:	3,098.49	100 %	