

**Florida Fish and Wildlife Conservation Commission
Division of Habitat and Species Conservation
Land Conservation and Planning
Ford Marsh 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 **Ford Marsh** 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

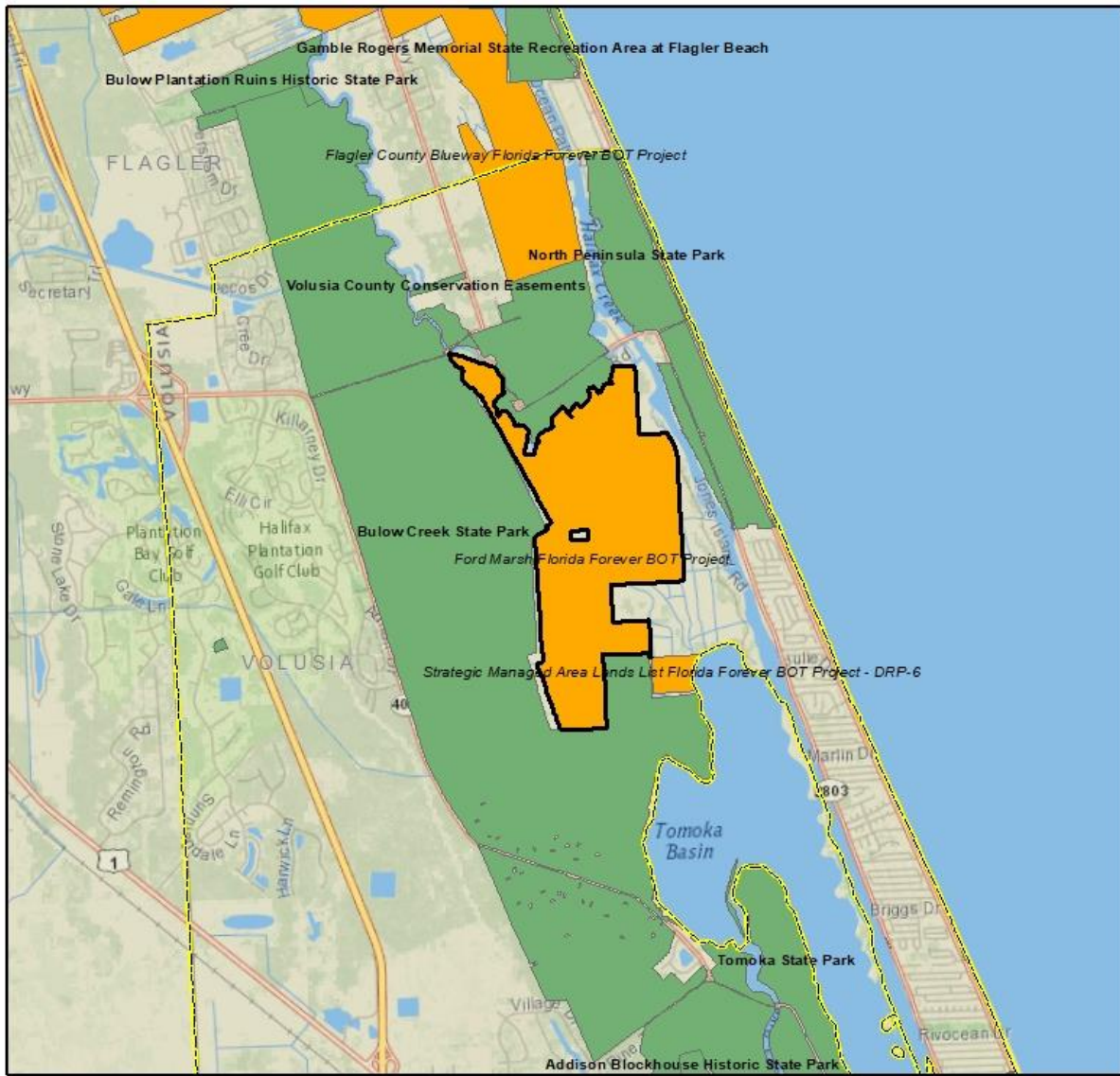
The FWC utilizes the Florida Cooperative Land Cover (CLC) GIS data layer for identification and mapping of land cover. The CLC is a cooperative effort between the FWC and the Florida Natural Areas Inventory (FNAI) to develop ecologically-based statewide land cover from existing sources and expert review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



Ford Marsh
Florida Forever Project
 Volusia County
 1,200 Remaining Acres



0 1 2 3 4 Miles

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

Vicinity Map

- Ford Marsh Boundary
- County Boundaries
- Conservation Lands
- Florida Forever Projects



Ford Marsh
Florida Forever Project
 Volusia County
 1,200 Remaining Acres



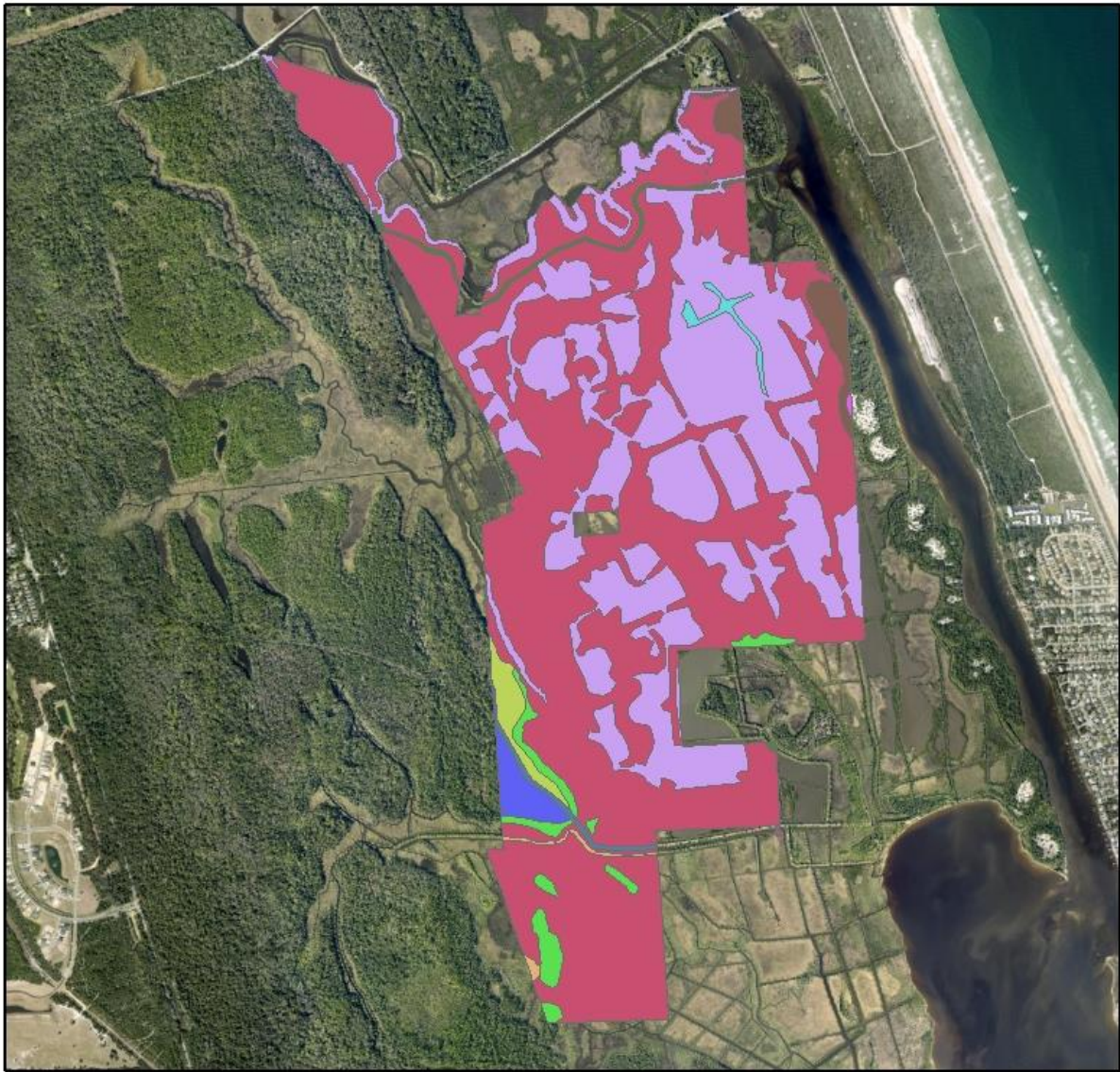
0 0.25 0.5 0.75 1 Miles

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Aerial Imagery

 Ford Marsh Boundary



Ford Marsh
Florida Forever Project
 Volusia County
 1,200 Remaining Acres

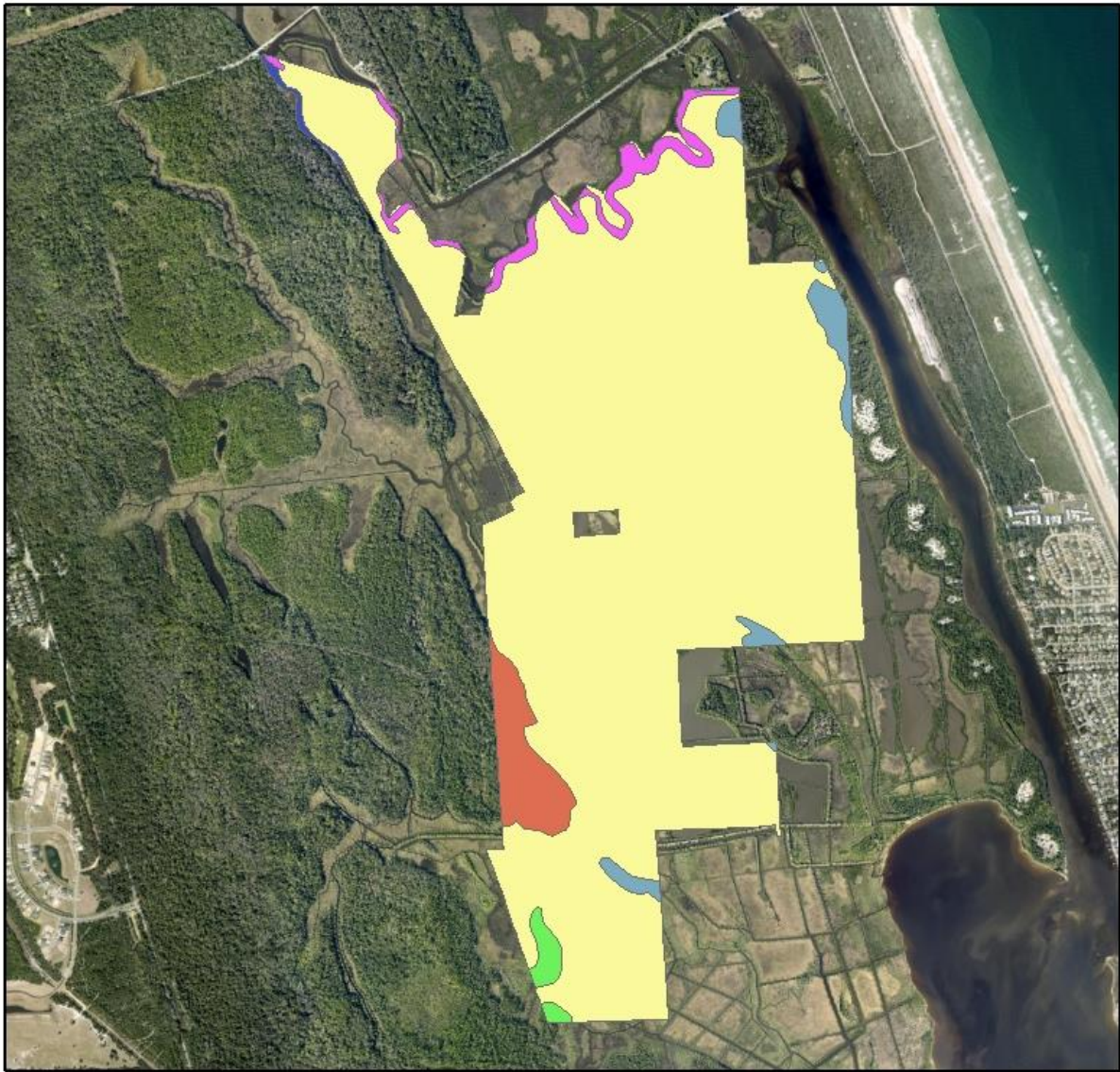


0 0.25 0.5 0.75 1 Miles

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Cooperative Land Cover

Coastal Scrub	Prairies and Bogs
Estuarine	Rural
Freshwater Forested Wetlands	Salt Marsh
Hydric Hammock	Scrubby Flatwoods
Mangrove Swamp	Transportation
Maritime Hammock	Xeric Hammock
Mesic Flatwoods	



Ford Marsh
Florida Forever Project
 Volusia County
 1,200 Remaining Acres

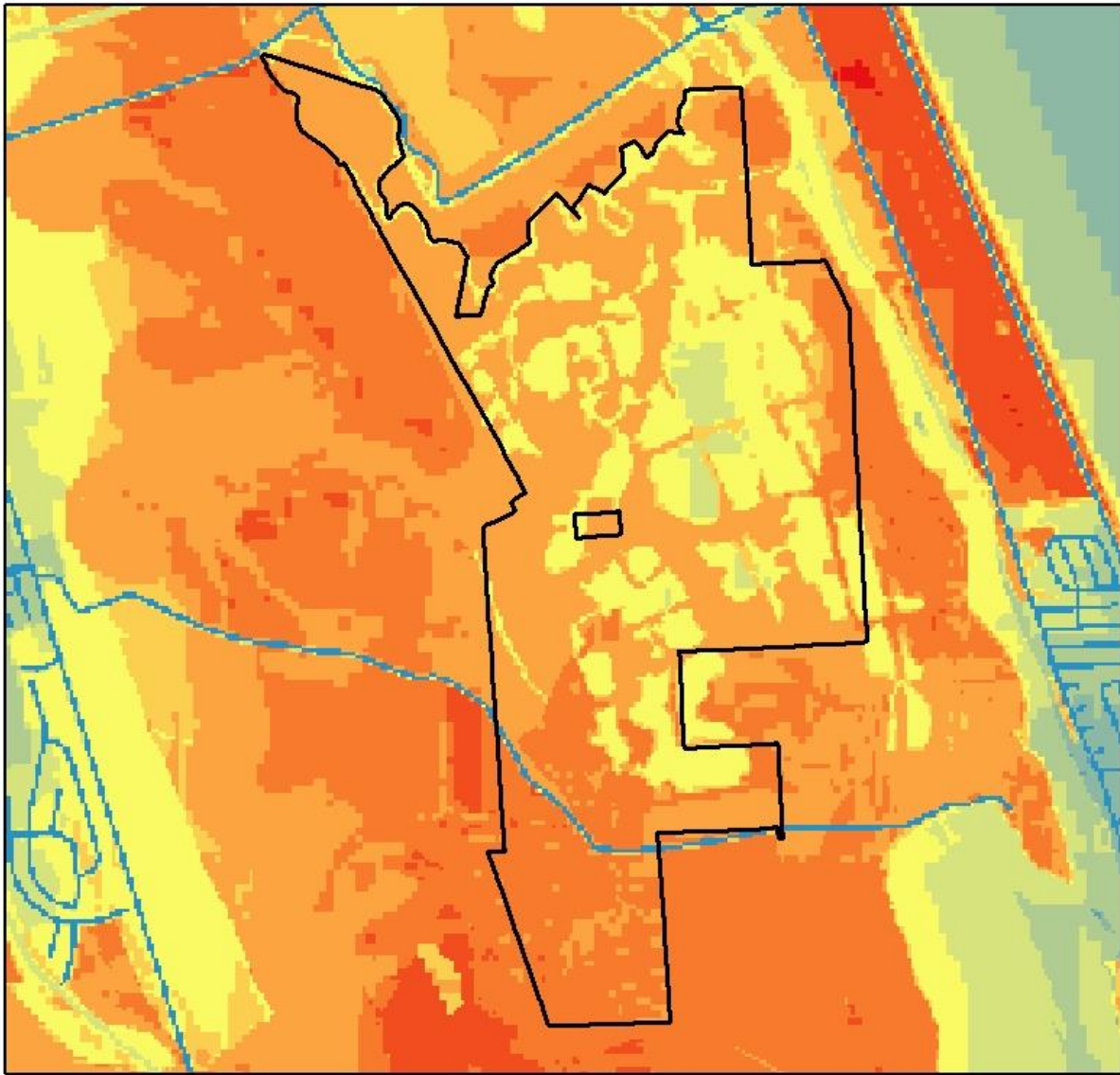


0 0.25 0.5 0.75 1 Miles

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Soil Types

-  Immokalee sand
-  Myakka-Myakka, wet, fine sands
-  Turnbull muck
-  Turnbull variant sand
-  Tuscawilla fine sand
-  Water



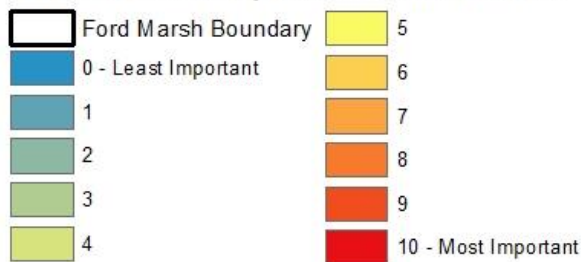
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0 0.25 0.5 0.75 1 Miles

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Florida Landscape Assessment Model



FWC Florida Landscape Assessment Model 2023		
	Value	Acres
	0	5.1
	1	0.0
	2	0.0
	3	0.0
	4	13.5
	5	296.5
	6	80.8
	7	454.7
	8	280.1
	9	2.1
	10	0.0
Mean FLAM value =	6.6	

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: 06082023 03:31:33

Shape Name: Unnamed polygon centered at -81.108969 °, 29.388312 °

Boundary Area: 1199.55 acres

Buffer Area: 0 acres

Total Area: 1199.55 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
Estuarine	5000	Oyster Bar	5230	0.61	0.05 %
Estuarine	5000	Estuarine	5000	378.22	31.53 %
Freshwater Forested Wetlands	2200	Mixed Wetland Hardwoods	2233	8.22	0.68 %
Salt Marsh	5240	Salt Marsh	5240	728.32	60.72 %
Transportation	1840	Transportation	1840	7.54	0.63 %
Hydric Hammock	2232	Cabbage Palm Hammock	22323	20.63	1.72 %
Mangrove Swamp	5250	Mangrove Swamp	5250	5.59	0.47 %
Hydric Hammock	2232	Hydric Hammock	2232	1.95	0.16 %
Mesic Flatwoods	1311	Mesic Flatwoods	1311	0.60	0.05 %
Coastal Scrub	1214	Coastal Scrub	1214	0.47	0.04 %
Xeric Hammock	1150	Xeric Hammock	1150	12.46	1.04 %
Scrubby Flatwoods	1312	Scrubby Flatwoods	1312	13.15	1.1 %
Prairies and Bogs	2110	Mixed Scrub-Shrub Wetland	2112	3.43	0.29 %
Rural	1830	Rural Open	1831	0.21	0.02 %
Maritime Hammock	1650	Maritime Hammock	1650	18.14	1.51 %
TOTAL:				1,199.55	100 %

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

CLIP Priority	Total Area (acres)	Percent of Area
CLIP P1 in submerged lands/state waters	536.07	44.69 %
CLIP P1 in terrestrial	663.48	55.31 %
TOTAL:	1,199.55	100 %

CLIP- Landscape Category

Priority	Total Area (acres)	Percent of Area
2	1,199.55	100 %
TOTAL:	1,199.55	100 %

CLIP- Biodiversity Category

Priority	Total Area (acres)	Percent of Area
0	3.52	0.29 %
1	312.45	26.05 %
2	34.20	2.85 %
3	259.36	21.62 %
4	3.12	0.26 %
5	586.89	48.93 %
TOTAL:	1,199.55	100 %

Priority FWC Strategic Habitat Conservation Areas 2021

Priority	Total Area (acres)	Percent of Area
0	616.24	51.37 %
1	578.32	48.21 %
2	2.26	0.19 %
3	2.61	0.22 %
5	0.12	0.01 %
TOTAL:	1,199.55	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
Atlantic salt marsh snake						520.29	43.37 %
Cooper's hawk						0.06	0 %
TOTAL:						520.35	43.38 %

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	1,161.43	96.82 %
TOTAL:	1,161.43	96.82 %
Rare Fish		
No Records Found		
Rare Fish Imperiled Waters		
No Records Found		
Southern bald eagle nest		
No Records Found		
Imperiled Species Richness		
Number of Species	Total Area (acres)	Percent of Area
0	0.17	0.01 %
1	539.34	44.96 %
3	634.75	52.92 %
4	14.60	1.22 %
5	4.28	0.36 %
6	6.41	0.53 %
TOTAL:	1,199.55	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
American Alligator	Alligator mississippiensis	G5	S4	FT(S/A)	SAT	B	2007	1,199.55	100 %
American Alligator	Alligator mississippiensis	G5	S4	FT(S/A)	SAT	E	2007	1,005.91	83.86 %
Florida Black Bear	Ursus americanus floridanus	G5T4	S4	N	N	B	2020-11-19	1,161.35	96.82 %
Gopher Tortoise	Gopherus polyphemus	G3	S3	ST	C	E	2002	4.45	0.37 %
							TOTAL:	3,371.26	281.04 %
Suitable Habitat that Supports Species Known to Occur in the Vicinity									
COMMON NAME		SCIENTIFIC NAME			Total Area (acres)			Percent of Area	
Florida Scrub-Jay		Aphelocoma coerulescens			0.50			0.04 %	
		TOTAL:			0.50			0.04 %	

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	1,199.55				100 %					

TOTAL:		1,199.55	100 %		
Water Resources					
FDEP Surface Water Classification					
Waterbody Name	Water Type	Water Basin	Classification	Total Area (acres)	Percent of Area
TOMOKA BASIN	ESTUARY	2363C	3M	15.30	1.28 %
PALM COAST	ESTUARY	2363J	3M	921.41	76.81 %
BULOW CREEK	ESTUARY	2620	3M	262.84	21.91 %
			TOTAL:	1,199.55	100 %