

Florida Fish and Wildlife Conservation Commission
Division of Habitat and Species Conservation
Land Conservation and Planning
Atlantic Ridge 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 **Atlantic Ridge 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

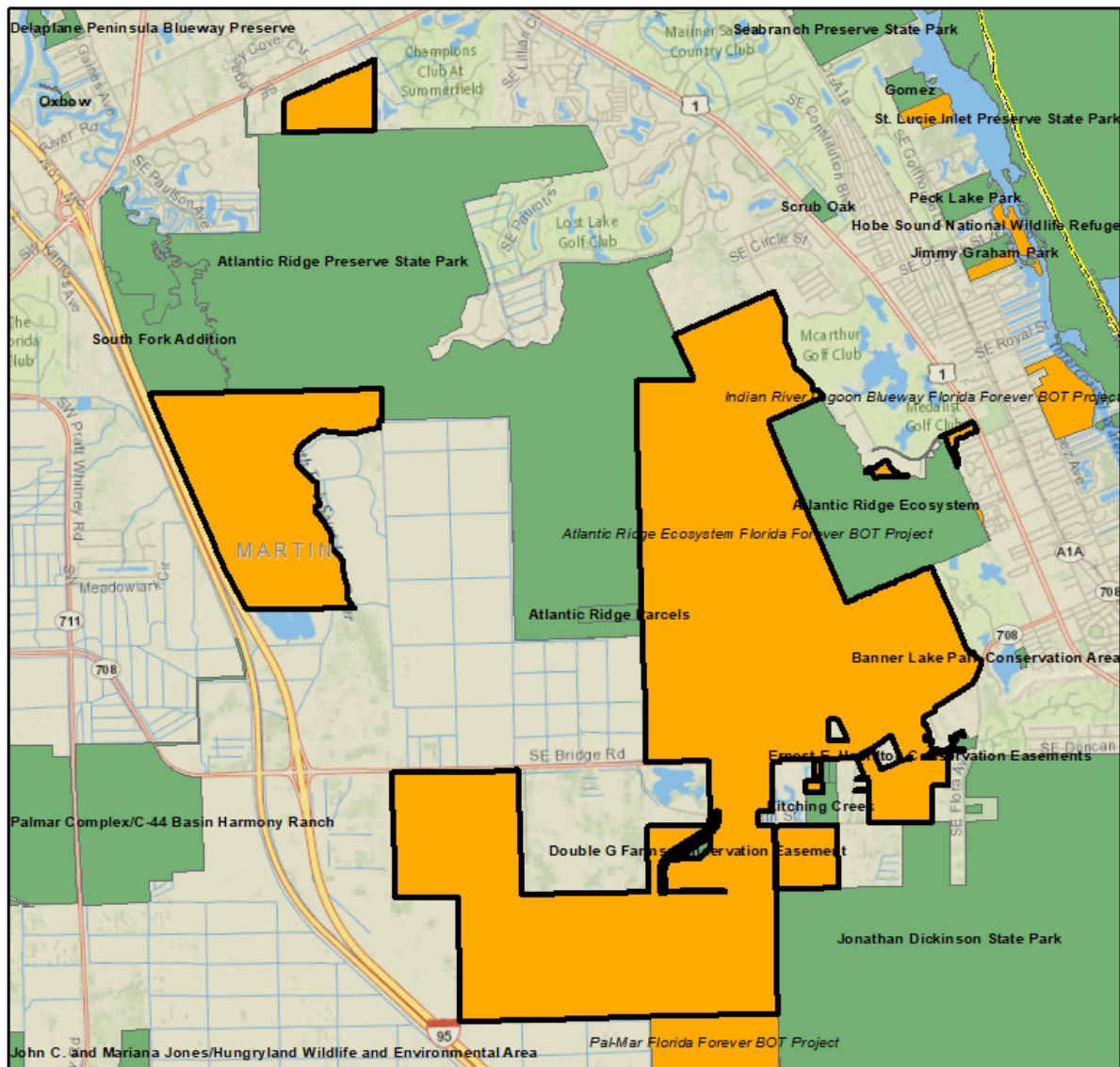
The FWC utilizes the Florida Cooperative Land Cover (CLC) GIS data layer for identification and mapping of land cover. The CLC is a cooperative effort between the FWC and the Florida Natural Areas Inventory (FNAI) to develop ecologically-based statewide land cover from existing sources and expert review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

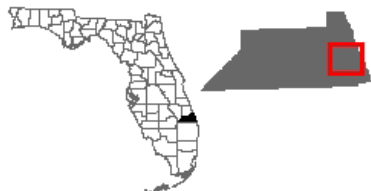
Important fish and wildlife resource GIS data were queried using Environmental Resource Analysis GIS computer software. These data include the following GIS layers:

- 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



**Atlantic Ridge Ecosystem
Florida Forever Project
Martin County
8,174 Remaining Acres**



0 1 2 3 4 Miles

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

Vicinity Map

-  Atlantic Ridge Ecosystem Boundary
-  County Boundary
-  Conservation Lands
-  Florida Forever Projects



Atlantic Ridge Ecosystem
Florida Forever Project
 Martin County
 8,174 Remaining Acres

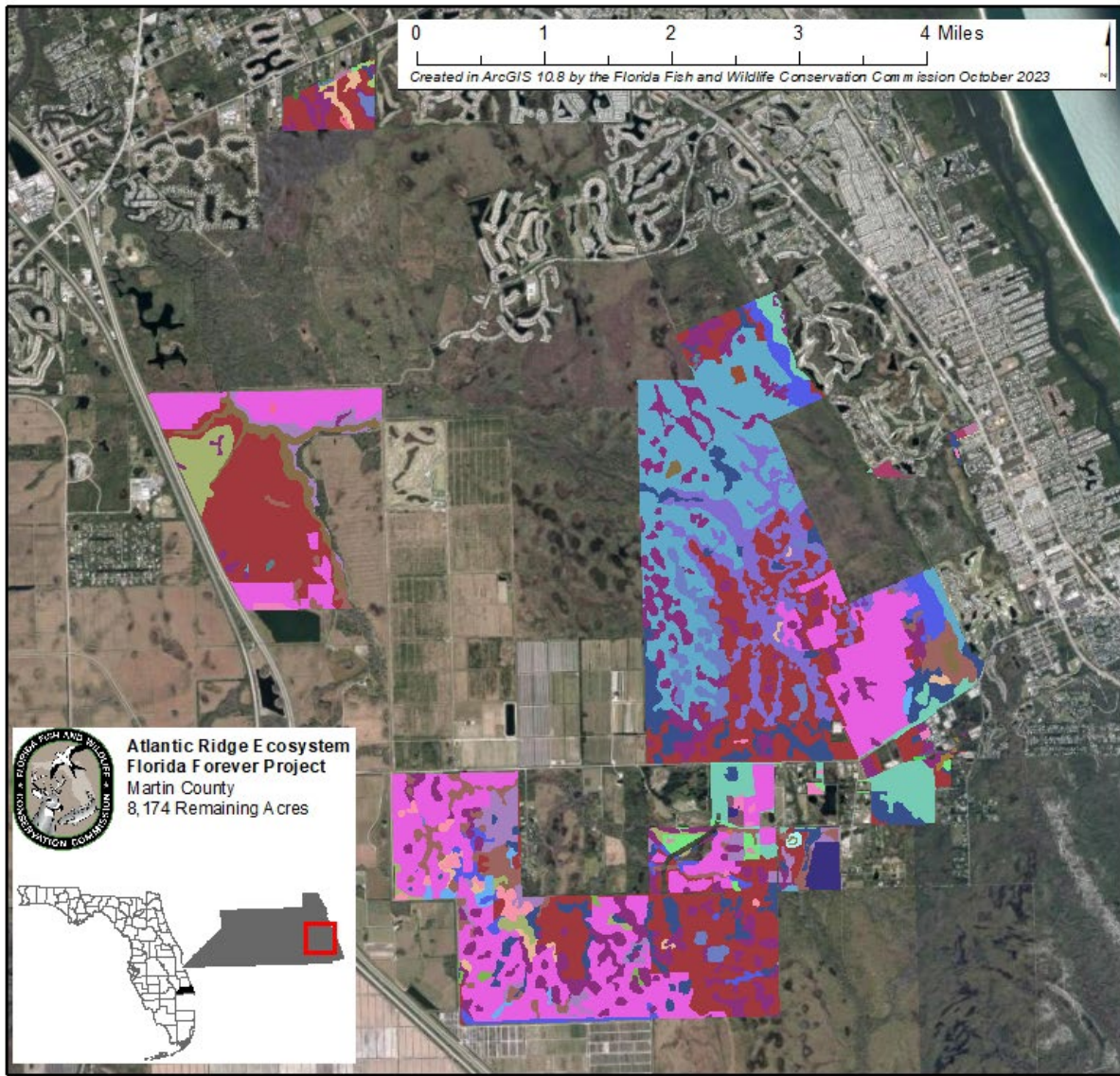


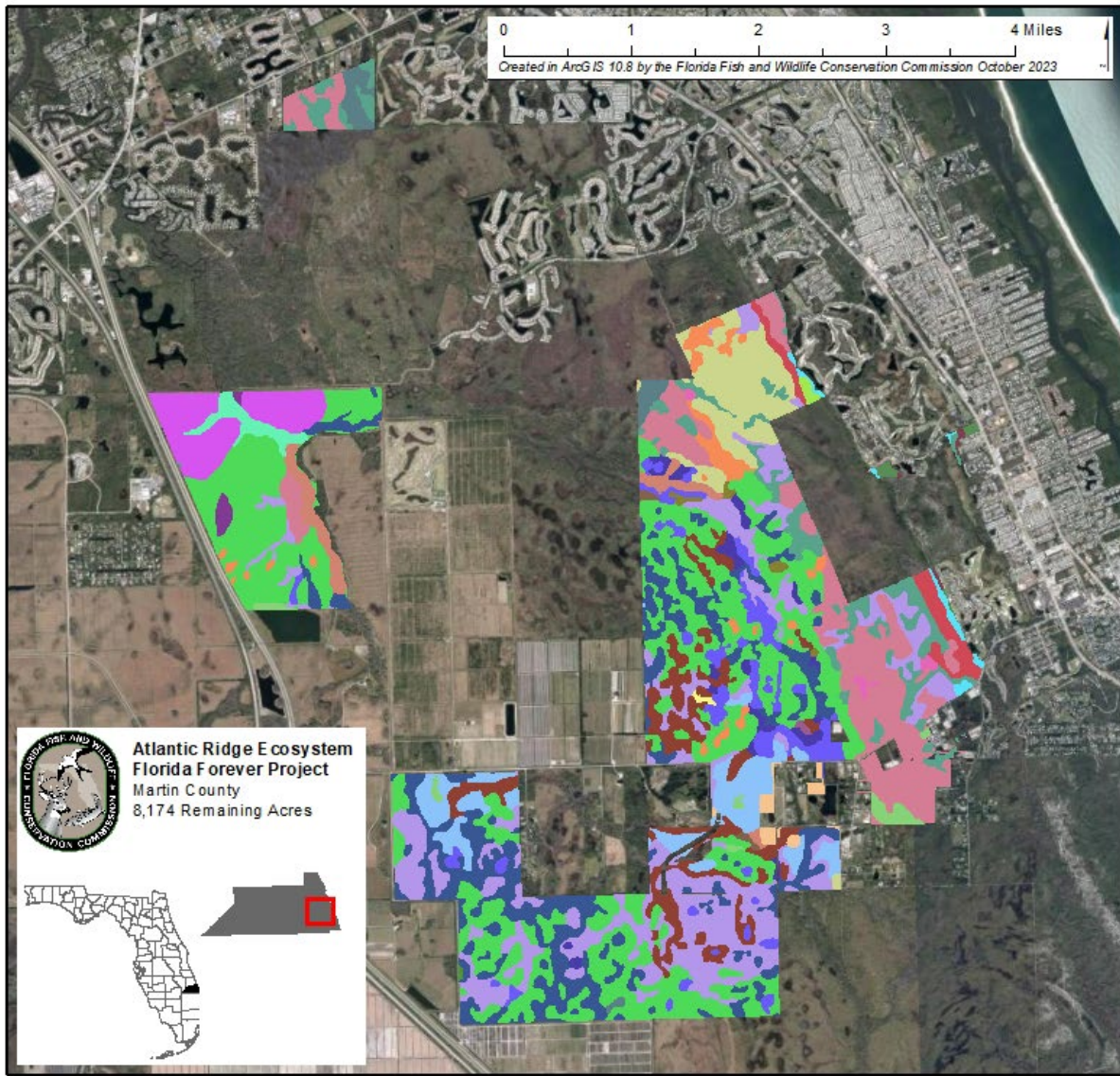
0 1 2 3 4 Miles
 Created in ArcGIS 10.8 by the Florida Fish and Wildlife Conservation Commission October 2023

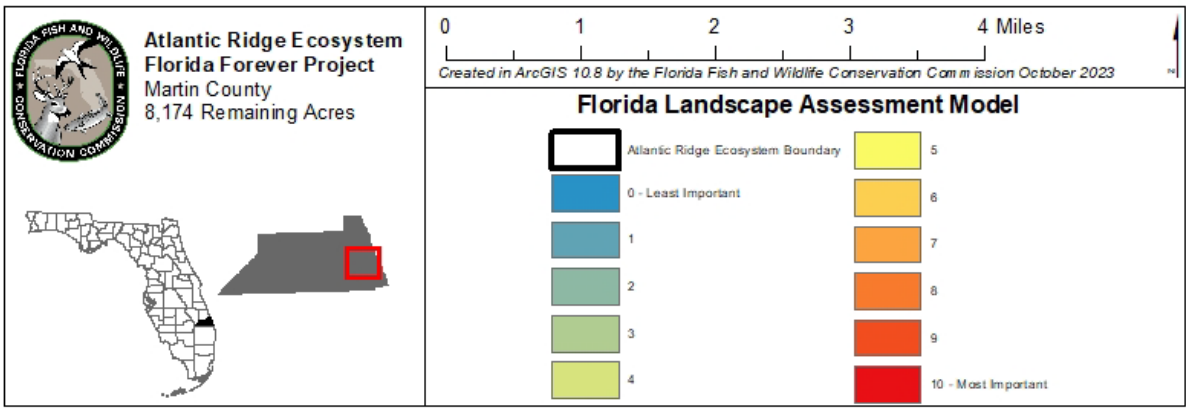
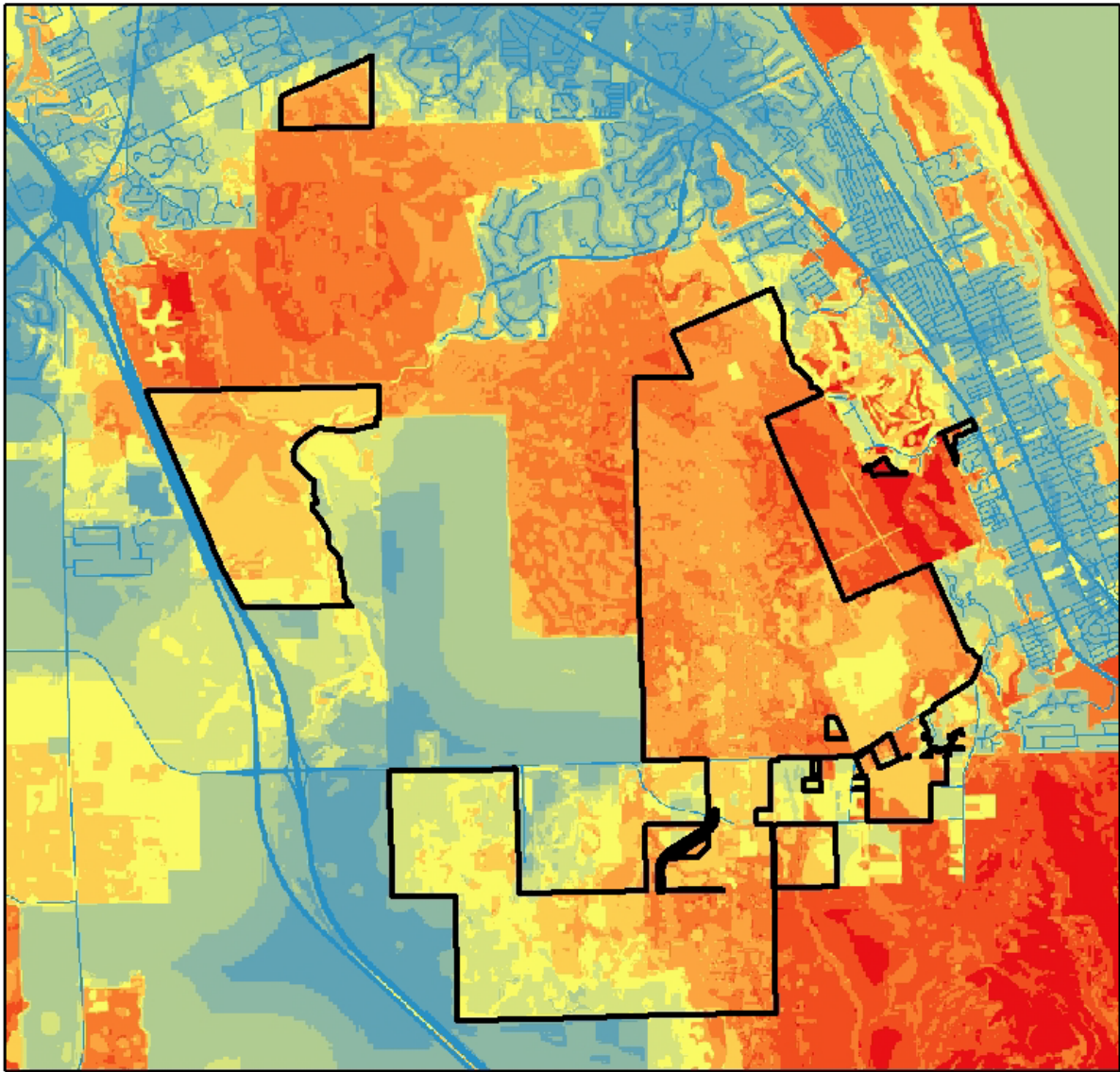
Aerial Imagery



Atlantic Ridge Ecosystem Boundary







FWC Florida Landscape Assessment Model 2023		
	Value	Acres
	0	10.1
	1	0.8
	2	11.3
	3	46.3
	4	814.5
	5	1361.4
	6	1613.6
	7	2625.8
	8	1558.1
	9	120.3
	10	12.0
Mean FLAM value =	6.4	

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 09:24:49

Shape Name: Unnamed polygon centered at -80.199412 °, 27.069655 °

Boundary Area: 8,174.85 acres

Buffer Area: 0 acres

Total Area: 8,174.85 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
Low Intensity Urban	1821	Low Structure Density	18212	2.91	0.04 %
Low Intensity Urban	1821	Urban Open Land	18211	1.73	0.02 %
High Intensity Urban	1822	Residential, Med. Density - 2-5 Dwelling Units/AC	18221	1.04	0.01 %
High Intensity Urban	1822	Industrial	18224	0.01	0 %
High Intensity Urban	1822	Commercial and Services	18223	2.31	0.03 %
Exotic Plants	7000	Exotic Wetland Hardwoods	7400	1.07	0.01 %
Natural Lakes and Ponds	3100	Natural Lakes and Ponds	3100	169.44	2.07 %
Lacustrine	3000	Lacustrine	3000	5.78	0.07 %
Cultural - Lacustrine	3200	Artificial Impoundment/Reservoir	3220	35.13	0.43 %
Exotic Plants	7000	Brazilian Pepper	7300	8.20	0.1 %
Cultural - Riverine	4200	Cultural - Riverine	4200	0.01	0 %
High Intensity Urban	1822	Institutional	18225	8.25	0.1 %
Rural	1830	Unimproved/Woodland Pasture	18314	157.19	1.92 %
Improved Pasture	183313	Improved Pasture	183313	1,649.29	20.18 %
Vineyard and Nurseries	18334	Ornamentals	183343	0.03	0 %
Transportation	1840	Transportation	1840	12.04	0.15 %
Other Agriculture	18335	Specialty Farms	183352	61.45	0.75 %
Cropland/Pasture	18331	Row Crops	183311	0.50	0.01 %
Isolated Freshwater Marsh	2121	Depression Marsh	21211	481.75	5.89 %
Vineyard and Nurseries	18334	Vineyard and Nurseries	18334	8.35	0.1 %
Dome Swamp	22131	Dome Swamp	22131	2.78	0.03 %
Low Intensity Urban	1821	Golf courses	182132	0.37	0 %
Wet Flatwoods	2221	Hydric Pine Flatwoods	22211	58.92	0.72 %
Freshwater Forested Wetlands	2200	Cypress/Hardwood Swamps	2241	1.77	0.02 %
Rural	1830	Rural Structures	1832	41.08	0.5 %
Rural	1830	Rural Open	1831	6.00	0.07 %
Utilities	1860	Utilities	1860	0.03	0 %
Extractive	1870	Spoil Area	1877	0.50	0.01 %
Extractive	1870	Sand and Gravel Pits	1872	3.43	0.04 %
Shrub and Brushland	1500	Shrub and Brushland	1500	256.08	3.13 %
Mesic Flatwoods	1311	Mesic Flatwoods	1311	1,894.41	23.17 %
Scrub	1210	Scrub	1210	15.62	0.19 %
Scrubby Flatwoods	1312	Scrubby Flatwoods	1312	0.03	0 %
Mixed Hardwood-Coniferous	1400	Mixed Hardwood-Coniferous	1400	203.77	2.49 %
Palmetto Prairie	1340	Palmetto Prairie	1340	4.93	0.06 %
Prairies and Bogs	2110	Wet Prairie	2111	5.31	0.06 %
Wet Flatwoods	2221	Wet Flatwoods	2221	997.75	12.21 %
Isolated Freshwater Swamp	2213	Isolated Freshwater Swamp	2213	55.74	0.68 %
Hydric Hammock	2232	Hydric Hammock	2232	206.35	2.52 %
Freshwater Forested Wetlands	2200	Mixed Hardwood-Coniferous Swamps	2240	39.70	0.49 %
Freshwater Forested Wetlands	2200	Mixed Wetland Hardwoods	2233	143.53	1.76 %
Cypress	2211	Cypress	2211	265.54	3.25 %
Marshes	2120	Marshes	2120	856.02	10.47 %
Prairies and Bogs	2110	Mixed Scrub-Shrub Wetland	2112	484.61	5.93 %
Isolated Freshwater Marsh	2121	Isolated Freshwater Marsh	2121	2.85	0.03 %
Cypress/Tupelo (Cypress/Tupelo mixed)	2210	Cypress/Tupelo (Cypress/Tupelo mixed)	2210	12.80	0.16 %
Freshwater Non-Forested Wetlands	2100	Floating/Emergent Aquatic Vegetation	2140	8.45	0.1 %
TOTAL:				8,174.85	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		1,906.68		23.32 %	

CLIP P1 in submerged lands/state waters	3.42	0.04 %
CLIP P1 in terrestrial	3,693.17	45.18 %
CLIP P2 in submerged lands/state waters	4.07	0.05 %
CLIP P2 in terrestrial	2,543.44	31.11 %
TOTAL:	8,150.76	99.71 %
CLIP- Landscape Category		
Priority	Total Area (acres)	Percent of Area
0	76.28	0.93 %
1	23.28	0.28 %
2	4.85	0.06 %
3	8,070.44	98.72 %
TOTAL:	8,174.85	100 %
CLIP- Biodiversity Category		
Priority	Total Area (acres)	Percent of Area
0	283.56	3.47 %
1	220.36	2.7 %
2	3,251.33	39.77 %
3	771.09	9.43 %
4	3,632.12	44.43 %
5	16.39	0.2 %
TOTAL:	8,174.85	100 %
Priority FWC Strategic Habitat Conservation Areas 2021		
Priority	Total Area (acres)	Percent of Area
0	6,731.09	82.34 %
2	843.01	10.31 %
3	178.09	2.18 %
4	0.20	0 %
5	422.45	5.17 %
TOTAL:	8,174.85	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
American swallow-tailed kite		195.07 2.39 %
Cooper's hawk		430.38 5.26 %
Cooper's hawk	American swallow-tailed kite	12.15 0.15 %
Florida mouse	Florida scrub jay	3.49 0.04 %
Florida scrub jay		7.50 0.09 %
Florida snail kite		813.43 9.95 %
	TOTAL:	1,462.02 17.88 %
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
Rare	8,174.85	100 %
TOTAL:	8,174.85	100 %
Rare Fish		
No Records Found		
Rare Fish Imperiled Waters		
COMMON NAME	SCIENTIFIC NAME	Total Area (acres) Percent of Area
Mountain mullet	Agonostomus monticola	2,172.67 26.58 %
	TOTAL:	2,172.67 26.58 %
Southern bald eagle nest		
No Records Found		
Imperiled Species Richness		
Number of Species	Total Area (acres)	Percent of Area
0	304.25	3.72 %
1	3.39	0.04 %
2	0.06	0 %
3	1,017.42	12.45 %
4	13.38	0.16 %
5	1,790.93	21.91 %
6	711.77	8.71 %
7	2,840.39	34.75 %
8	1,393.97	17.05 %
9	99.29	1.21 %
TOTAL:	8,174.85	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	
Dark Tiny Sand-loving Scarab	Geopsammodius fuscus	G1	S1	N	N	E	2005-12-18	0.08	0 %	
DATA SENSITIVE ELEMENT OCCURRENCE - contact FNAI for more information	DATA SENSITIVE ELEMENT OCCURRENCE - contact FNAI for more information	G3	S1	E	N	E	1981 pre	6,062.21	74.16 %	
Florida Sandhill Crane	Antigone canadensis pratensis	G5T2	S2	ST	N	E	1984	928.87	11.36 %	
Gopher Tortoise	Gopherus polyphemus	G3	S3	ST	N	E	1981	689.32	8.43 %	
Johnson's seagrass	Halophila johnsonii	G2Q	S2	E	DL	H	1959-03-10	192.57	2.36 %	
large-flowered rosemary	Conradina grandiflora	G3	S3	T	N	E	1988-01	1,145.89	14.02 %	
perforate reindeer lichen	Cladonia perforata	G2G3	S2S3	E	E	AC	2020-06-11	0.71	0.01 %	
Piedmont jointgrass	Coelorachis tuberculosa	G3	S3	T	N	E	1989-11-12	2.81	0.03 %	
Sand Pine Scrub Ataenius Beetle	Haroldiataenius saramari	G3G4	S3S4	N	N	E	1994 pre	0.08	0 %	
sand-dune spurge	Chamaesyce cumulicola	G2	S2	E	N	U	1981 pre	6,058.36	74.11 %	
tropical ironwood	Eugenia confusa	G4G5	S2S3	E	N	H	1952-06-03	25.57	0.31 %	
ZZ	Blackwater stream	G4	S3	N	N	E	2004	97.95	1.2 %	
ZZ	Scrubby flatwoods	G2	S2?	N	N	AC	1999	1,560.35	19.09 %	
TOTAL:								16,764.79	205.08 %	
Suitable Habitat that Supports Species Known to Occur in the Vicinity										
COMMON NAME		SCIENTIFIC NAME		Total Area (acres)				Percent of Area		
Dark Tiny Sand-loving Scarab		Geopsammodius fuscus		106.25				1.3 %		
East Coast Scrub Grasshopper		Melanoplus indicifer		106.25				1.3 %		
Florida Sandhill Crane		Antigone canadensis pratensis		8,426.31				103.08 %		
Florida Scrub Lizard		Sceloporus woodi		134.74				1.65 %		
Florida Scrub-Jay		Aphelocoma coerulescens		16.54				0.2 %		
large-flowered rosemary		Conradina grandiflora		38.39				0.47 %		
Loammi Skipper		Atrytonopsis loammi		25.28				0.31 %		
nodding pinweed		Lechea cernua		32.84				0.4 %		
perforate reindeer lichen		Cladonia perforata		44.72				0.55 %		
Sand Pine Scrub Ataenius Beetle		Haroldiataenius saramari		106.25				1.3 %		
Wood Stork		Mycteria americana		2,722.78				33.31 %		
TOTAL:				11,760.34				143.86 %		
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				
2		8,132.59				99.48 %				
TOTAL:		8,132.59				99.48 %				
Water Resources										
FDEP Surface Water Classification										
Waterbody Name			Water Type	Water Basin	Classification	Total Area (acres)		Percent of Area		
SOUTH FORK ST LUCIE RIVER (TIDAL SEGMENT)			ESTUARY	3210C	3M	189.38		2.32 %		
SOUTH FORK ST LUCIE RIVER (FRESHWATER SEGMENT)			STREAM	3210D	3F	1,984.64		24.28 %		
BASIN 2			STREAM	3220	3F	1,766.68		21.61 %		
LOXAHATCHEE RIVER (NORTH FORK UPPER)			STREAM	3224A	3F	196.48		2.4 %		
KITCHINGS CREEK			STREAM	3224B	3F	3,303.26		40.41 %		

MOONSHINE CREEK	STREAM	3224C2	3F	734.40	8.98 %
			TOTAL:	8,174.85	100 %
Outstanding Florida Waters					
Name	OFW Type	Total Area (acres)		Percent of Area	
Jonathan Dickinson State Park	Other	13.68		0.17 %	
TOTAL:		13.68		0.17 %	
Florida Geological Survey Springs					
No Records Found					
National Wetlands Inventory					
Wetland Type	Wetland Code	Total Area (acres)		Percent of Area	
FRESHWATER POND	PABHx	0.55		0.01 %	
FRESHWATER EMERGENT WETLAND	PEM1/FO1C	17.02		0.21 %	
FRESHWATER EMERGENT WETLAND	PEM1/FO2C	5.88		0.07 %	
FRESHWATER EMERGENT WETLAND	PEM1Ad	3.70		0.05 %	
FRESHWATER POND	PAB4Hx	0.17		0 %	
LAKE	L1UBHx	10.01		0.12 %	
FRESHWATER POND	PABH	0.37		0 %	
FRESHWATER FORESTED/SHRUB WETLAND	PFO2F	167.52		2.05 %	
FRESHWATER FORESTED/SHRUB WETLAND	PFO2/1C	40.37		0.49 %	
FRESHWATER FORESTED/SHRUB WETLAND	PFO2C	22.91		0.28 %	
FRESHWATER FORESTED/SHRUB WETLAND	PFO4B	14.76		0.18 %	
FRESHWATER FORESTED/SHRUB WETLAND	PFO4Bd	3.75		0.05 %	
FRESHWATER FORESTED/SHRUB WETLAND	PFO2/4C	2.18		0.03 %	
FRESHWATER FORESTED/SHRUB WETLAND	PFO4C	41.89		0.51 %	
FRESHWATER FORESTED/SHRUB WETLAND	PSS1/3C	5.55		0.07 %	
FRESHWATER FORESTED/SHRUB WETLAND	PFO3/1Cd	0.04		0 %	
FRESHWATER FORESTED/SHRUB WETLAND	PFO1R	0.10		0 %	
FRESHWATER FORESTED/SHRUB WETLAND	PFO2B	25.09		0.31 %	
FRESHWATER FORESTED/SHRUB WETLAND	PFO3C	2.54		0.03 %	
FRESHWATER FORESTED/SHRUB WETLAND	PFO1B	5.09		0.06 %	
FRESHWATER FORESTED/SHRUB WETLAND	PFO1/SS1C	167.37		2.05 %	
FRESHWATER FORESTED/SHRUB WETLAND	PFO1/4C	64.51		0.79 %	
FRESHWATER FORESTED/SHRUB WETLAND	PFO1/SS1Cd	1.80		0.02 %	
FRESHWATER FORESTED/SHRUB WETLAND	PFO1/3C	25.35		0.31 %	
FRESHWATER FORESTED/SHRUB WETLAND	PFO1C	141.95		1.74 %	
FRESHWATER FORESTED/SHRUB WETLAND	PFO1/SS1B	46.96		0.57 %	
FRESHWATER FORESTED/SHRUB WETLAND	PFO1/2C	57.56		0.7 %	
FRESHWATER FORESTED/SHRUB WETLAND	PFO1/4A	8.63		0.11 %	
FRESHWATER EMERGENT WETLAND	PEM1Fd	0.46		0.01 %	
FRESHWATER EMERGENT WETLAND	PEM1F	149.10		1.82 %	
FRESHWATER EMERGENT WETLAND	PEM1C	1,257.20		15.38 %	
FRESHWATER EMERGENT WETLAND	PEM1B	256.90		3.14 %	
RIVERINE	R5UBH	3.33		0.04 %	
RIVERINE	R5UBFx	25.58		0.31 %	
RIVERINE	R2UBHx	33.73		0.41 %	
RIVERINE	R4SBC	1.67		0.02 %	
FRESHWATER POND	PUBHx	29.94		0.37 %	
FRESHWATER POND	PUSC	29.74		0.36 %	
RIVERINE	R2UBH	0.73		0.01 %	
FRESHWATER FORESTED/SHRUB WETLAND	PSS1C	83.73		1.02 %	
FRESHWATER FORESTED/SHRUB WETLAND	PSS2C	5.01		0.06 %	
FRESHWATER FORESTED/SHRUB WETLAND	PSS2Cd	7.15		0.09 %	
FRESHWATER FORESTED/SHRUB WETLAND	PSS3/1B	6.55		0.08 %	
FRESHWATER FORESTED/SHRUB WETLAND	PSS3/1C	27.84		0.34 %	
FRESHWATER FORESTED/SHRUB WETLAND	PSS3C	98.36		1.2 %	
FRESHWATER POND	PUBH	0.46		0.01 %	
FRESHWATER FORESTED/SHRUB WETLAND	PSS4B	4.56		0.06 %	
FRESHWATER FORESTED/SHRUB WETLAND	PSS1/4C	14.18		0.17 %	
FRESHWATER FORESTED/SHRUB WETLAND	PSS1/4Cd	1.67		0.02 %	
FRESHWATER FORESTED/SHRUB WETLAND	PSS1B	32.24		0.39 %	
TOTAL:		2,953.72		36.13 %	
Priority Floodplain Resources					
Priority	Total Area (acres)		Percent of Area		
5	336.69		4.12 %		
4	804.50		9.84 %		
3	912.94		11.17 %		
0	5,177.60		63.34 %		
2	775.47		9.49 %		
1	126.23		1.54 %		
6	41.43		0.51 %		
TOTAL:	8,174.85		100 %		