Southeast Conservation Blueprint Summary

for Florida

Created 10/11/2024

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The Southeast Conservation Blueprint 2024

Southeast Conservation Adaptation Strategy

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About the Southeast Blueprint

The Southeast Conservation Blueprint is the primary product of the Southeast Conservation Adaptation Strategy (SECAS). It is a living, spatial plan to achieve the SECAS vision of a connected network of lands and waters across the Southeast and Caribbean. The Blueprint is regularly updated to incorporate new data, partner input, and information about on-the-ground conditions.

The Blueprint identifies priority areas based on a suite of natural and cultural resource indicators representing terrestrial, freshwater, and marine ecosystems. A connectivity analysis identifies corridors that link coastal and inland areas and span climate gradients.

For more information:

- Visit the Blueprint webpage
- Review the Blueprint 2024 Development Process
- View and download the Blueprint data and make maps on the Blueprint page of the SECAS Atlas

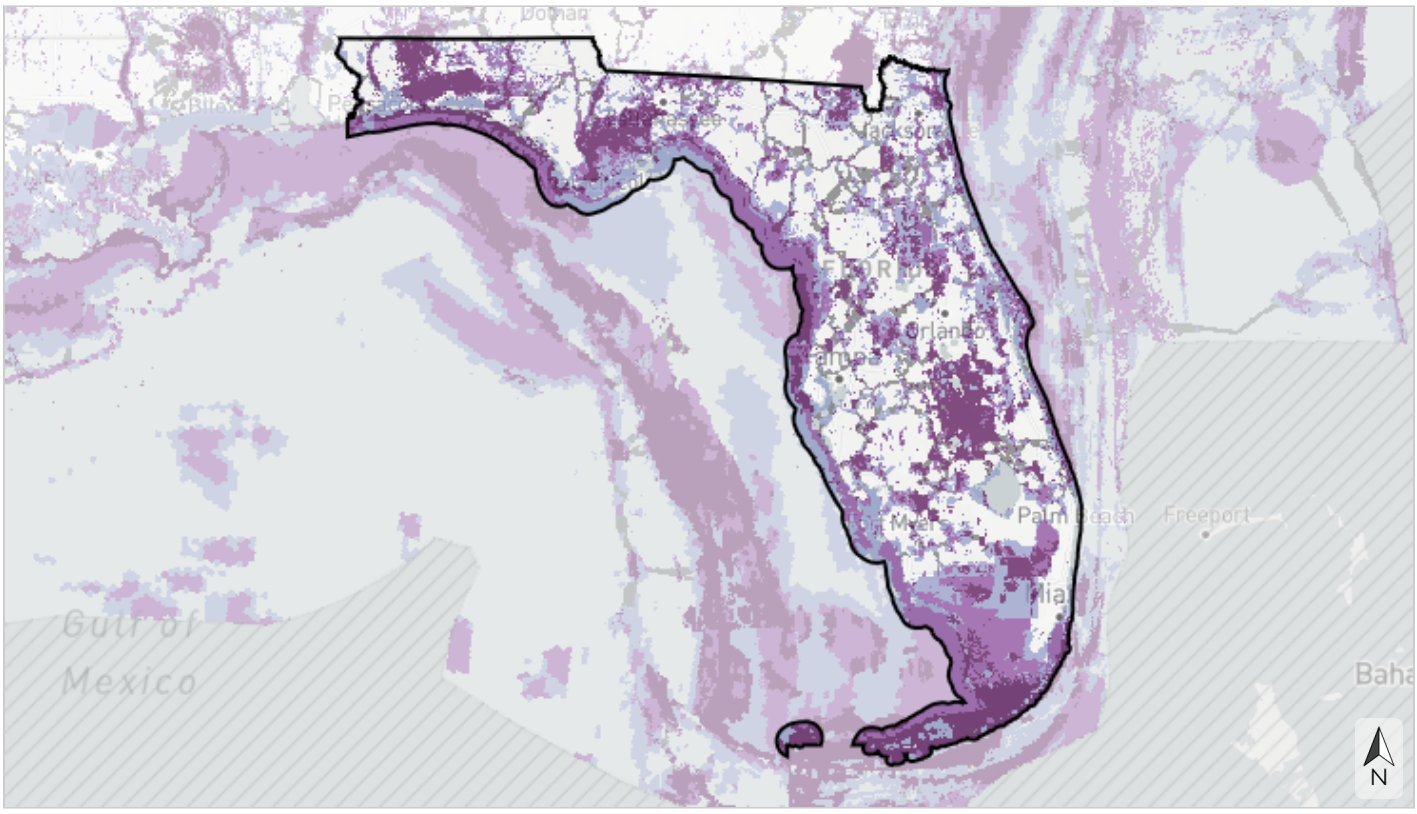
We're here to help!

- Do you have a question about the Blueprint?
- Would you like help using the Blueprint to support a proposal or inform a decision?
- Do you have a suggestion on how to improve the Blueprint? The Blueprint and its inputs are regularly revised based on input from people like you.
- Do you have feedback on how to improve the Blueprint Explorer interface?

If you need help or have questions, contact Southeast Blueprint staff by reaching out to a member of the user support team.

We're here to support you. We really mean it. It's what we do!

Southeast Blueprint Priorities



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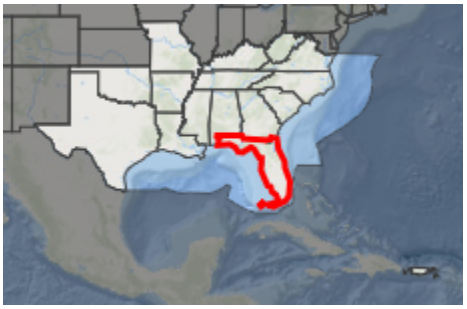


Priorities for a connected network of lands and waters

- Highest priority
- High priority
- Medium priority
- Priority connections

Priority Categories

For a connected network of lands and waters

In total, Blueprint priorities and priority connections cover roughly 50% of the Southeast Blueprint geography.

Highest priority

Areas where conservation action would make the biggest impact, based on a suite of natural and cultural resource indicators. This class covers roughly 10% of the Southeast Blueprint geography.

High priority

Areas where conservation action would make a big impact, based on a suite of natural and cultural resource indicators. This class covers roughly 15% of the Southeast Blueprint geography.

Medium priority

Areas where conservation action would make an above-average impact, based on a suite of natural and cultural resource indicators. This class covers roughly 20% of the Southeast Blueprint geography.

Priority connections

Connections between priority areas that cover the shortest distance possible while routing through as much Blueprint priority as possible. This class covers roughly 5% of the Southeast Blueprint geography.

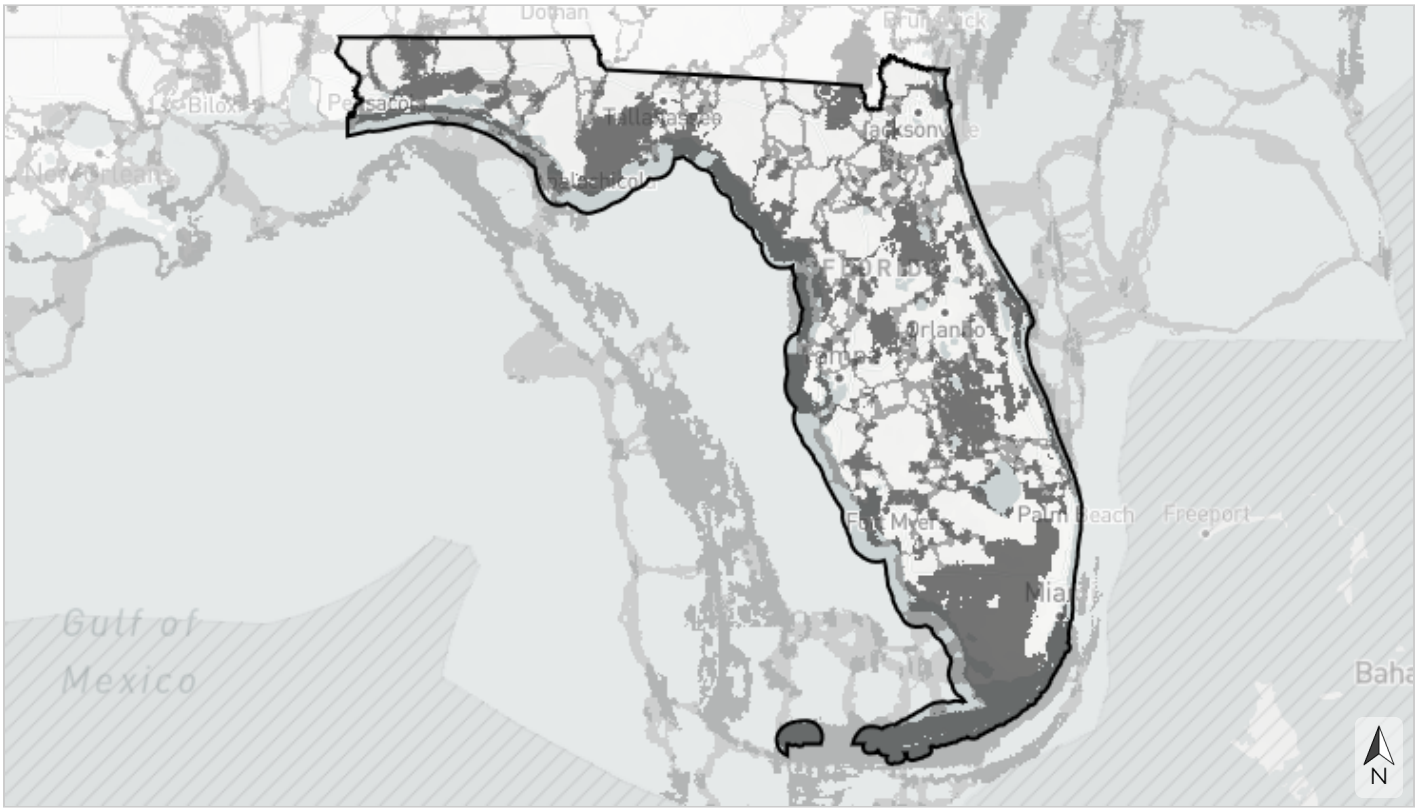
Table 1: Extent of each Blueprint priority category within Florida.

Priority Category	Acres	Percent of Area
Highest priority	7,937,997	17.4%
High priority	9,490,160	20.8%
Medium priority	9,752,889	21.3%
Priority connections	2,306,858	5.0%
Lower priority	16,210,259	35.5%
Total area	**45,698,163**	**100%**

Hubs and Corridors

The Blueprint uses a least-cost path connectivity analysis to identify corridors that link hubs across the shortest distance possible, while also routing through as much Blueprint priority as possible.

In the continental Southeast, hubs are large patches (~5,000+ acres) of highest priority Blueprint areas and/or protected lands.



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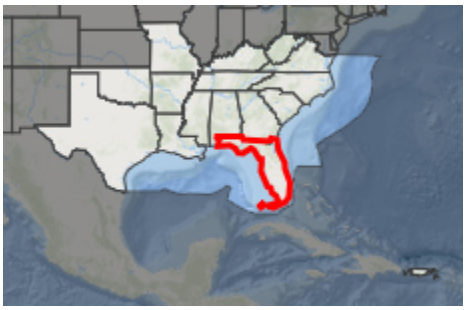


Hubs
Corridors

Table 2: Extent of hubs and corridors within Florida.

Type	Acres	Percent of Area
Hubs	15,560,457	34.1%
Corridors	7,146,702	15.6%
Not a hub or corridor	22,991,004	50.3%
Total area	**45,698,163**	**100%**

Indicator Summary

Table 3: Terrestrial indicators.

Indicator	Present
Amphibian & reptile areas	✓
East Coastal Plain open pine birds	✓
Equitable access to potential parks	✓
Fire frequency	✓
Grasslands and savannas	✓
Greenways & trails	✓
Intact habitat cores	✓
Landscape condition	✓
Resilient terrestrial sites	✓
South Atlantic forest birds	✓
South Atlantic low-urban historic landscapes	✓
Urban park size	✓

Table 4: Freshwater indicators.

Indicator	Present
Atlantic migratory fish habitat	✓
Gulf migratory fish connectivity	✓
Imperiled aquatic species	✓
Natural landcover in floodplains	✓
Network complexity	✓
Permeable surface	✓

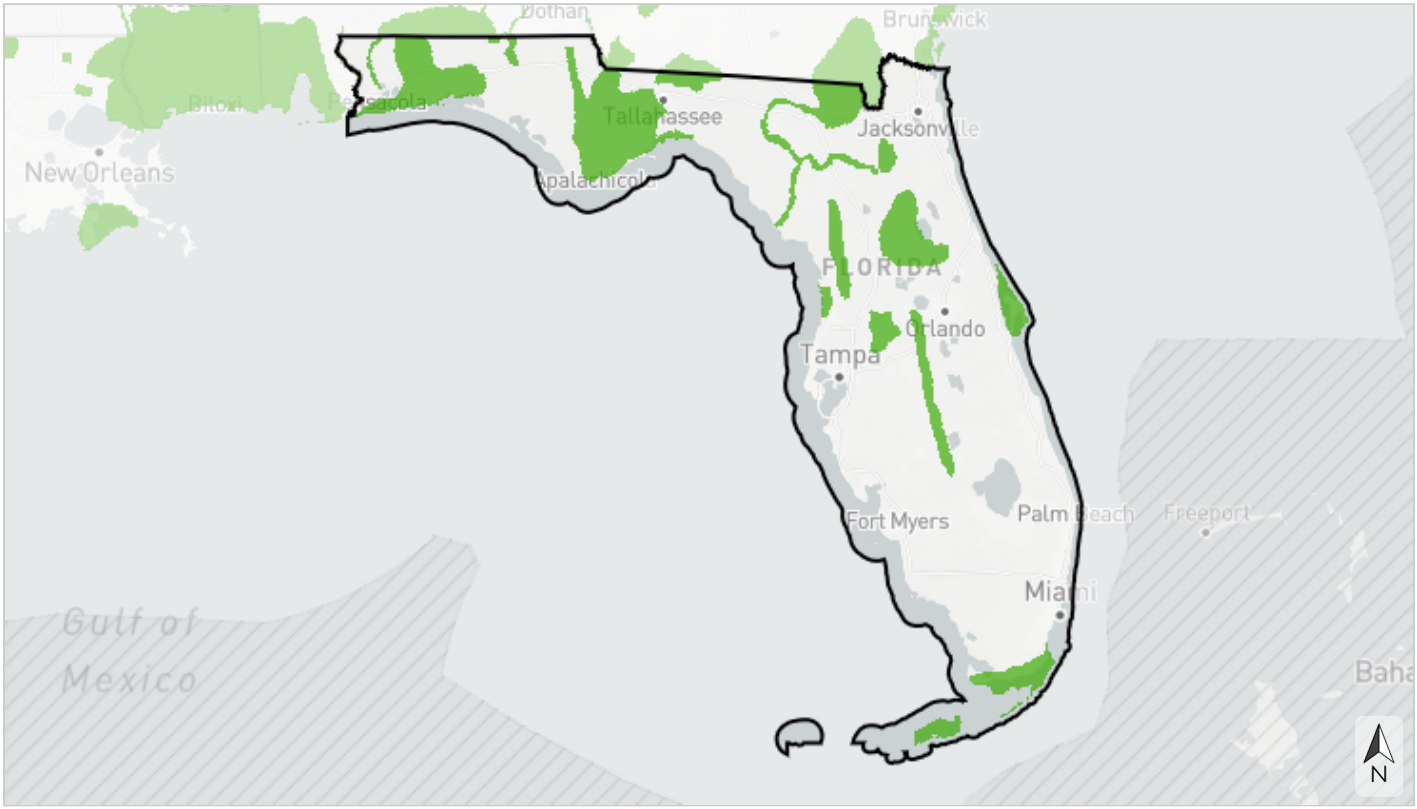
Table 5: Coastal & marine indicators.

Indicator	Present
Atlantic coral & hardbottom	✓
Atlantic deep-sea coral richness	✓
Atlantic estuarine fish habitat	✓
Atlantic marine birds	✓
Atlantic marine mammals	✓
Coastal shoreline condition	✓
Estuarine coastal condition	✓
Gulf coral & hardbottom	✓
Gulf deep-sea coral richness	✓
Gulf marine mammals	✓
Gulf sea turtles	✓
Island habitat	✓
Marine highly migratory fish	✓
Resilient coastal sites	✓
Seagrass	✓
South Atlantic beach birds	✓
South Atlantic maritime forest	✓
Stable coastal wetlands	✓

Terrestrial

Amphibian & reptile areas

This indicator represents Priority Amphibian and Reptile Conservation Areas (PARCAs) across the Southeast. PARCA is an expert-driven, nonregulatory designation that includes places capable of supporting viable amphibian and reptile populations, places occupied by rare or imperiled species, and places rich in biodiversity or species unique to that geographic area (i.e., endemism). Reptiles and amphibians are a critical part of the Southeast region's rich biodiversity and many populations are declining in the face of threats like habitat loss, invasive species, and climate change. The PARCA dataset is maintained by the Amphibian and Reptile Conservancy and does not yet include Virginia or Kentucky.



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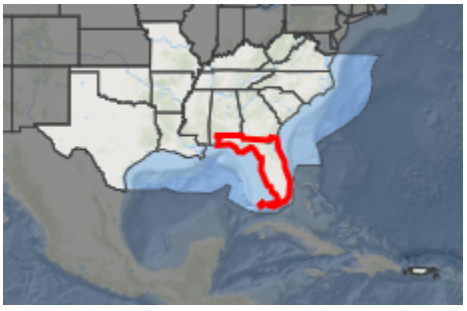


Priority Amphibian and Reptile Conservation Area (PARCA)

Not a PARCA (excluding Kentucky and Virginia)

Table 6: Indicator values for amphibian & reptile areas within Florida. A good condition threshold is not yet defined for this indicator.

	Indicator Values	Acres	Percent of Area
↑ High	Priority Amphibian and Reptile Conservation Area (PARCA)	6,838,157	15.0%
↓ Low	Not a PARCA (excluding Kentucky and Virginia)	38,860,006	85.0%
	Area not evaluated for this indicator	*0.22*	*<0.1%*
	Total area	**45,698,163**	**100%**

Priority Amphibian and Reptile Conservation Areas:

Acutus

The waters off the southern end of the Florida peninsula are home to five species of sea turtle (loggerhead, green, leatherback, Kemp's ridley, and hawksbill). Each of these species is listed as federally threatened or endangered, and the Acutus PARCA includes their foraging habitat, as well as mangrove, salt marsh, and riverine habitat for the state threatened American crocodile. The coast is lined with scrub mangrove and mangrove swamps, with pockets of baygall, strand swamps, and prairies embedded in marshland further inland.

Apalachicola

Apalachicola is an incredibly important area in the panhandle of Florida, containing thousands of acres of pine forests and old growth cypress swamps with an amazing diversity of species. Although most of this land is contained within Apalachicola National Forest, there exist serious threats from land degradation and the pressure of invasive species for several high priority species that live here, such as the Barbour's map turtle, gopher tortoise, diamondback terrapin, and eastern diamondback rattlesnake, to name a few. There is a monumental effort taking place between state, federal, and nonprofit organizations to ensure the threats in these forests and wetlands are remediated, and this PARCA remains a global biodiversity hotspot.

Brooksville Ridge

Stretching in a narrow ellipse between Gainesville and Homosassa Springs, the Brooksville Ridge PARCA encompasses a substantial amount of developed areas and cropland/pasture in addition to sandhills, marshes, and cypress pockets. The existence of the Brooksville Ridge PARCA at the urban-wild interface makes the protection of its wildlands all the more important. Indigo snake, southern hognose snake, and Florida pine snake are just a few of the imperiled reptiles residing in this PARCA.

Camp Blanding

Centered around Camp Blanding Wildlife Management Area, this PARCA exists at the intersection of working military lands and current infrastructure designed for wildlife conservation. From extensive sandhill habitat with lakes, streams, and forested wetlands to pine plantations with remnant mature pines, bottomland hardwood forests, and mesic flatwoods, there are myriad landscapes and environments found in this PARCA. These variable habitats are home to numerous imperiled species like

the eastern indigo snake, gopher frog, and striped newt.

Chassahowitzka
The Chassahowitzka PARCA sits along the Gulf Coast, just southwest of the southern end of the Brooksville Ridge PARCA, and includes a vast network of small coastal islands and salt marshes. The Chassahowitzka Wildlife Management Area and National Wildlife Refuge bracket the urban areas surrounding Homosassa Springs. Chassahowitzka's ephemeral wetlands are home to gopher frogs and indigo snakes, just two of the many amphibians and reptiles living in this area.

Choctawhatchee Pea North
The Choctawhatchee Pea North PARCA runs between the Fall Line Hills and the Conecuh PARCAs and is threatened by watershed pollution, sedimentation, and loss of connectivity. This PARCA sufferers from too few protections and regulations. It was selected to protect the freshwater turtle species that reside in these rivers, such as the Barbour's map turtle, as well as imperiled amphibians and reptiles that rely on its riparian areas as critical habitat, like the pine barrens tree frog and eastern hognose snake.

Choctawhatchee Pea South
Designed with freshwater turtles in mind, the Choctawhatchee Pea South PARCA includes the wildlands of the Choctawhatchee River Wildlife Management Area and the river's tributaries. The Choctawhatchee River's many turtle species are vulnerable to siltation, pollution, and degradation of nesting grounds, so protecting both the riverine and surrounding riparian areas is of the utmost importance. Other imperiled reptiles and amphibians, like king snakes and river frogs, also call this PARCA home.

Conecuh
Conecuh, along the southern Alabama border, is a highly important area for conservation in the core of the state's coastal plains. Longleaf pine forests have historically made this area important for the federally threatened gopher tortoise, which faces little protection outside of the Conecuh National Forest. Endangered reptiles also face pressure here from the loss of prey species like the eastern pocket gopher. Addressing recreation and poor fire management are top priorities to keep these habitats healthy for the numerous amphibians and reptiles here, including the eastern glass lizard and eastern box turtle.

Eglin Blackwater
Spanning from the Alabama border to the Gulf of Mexico, the Eglin Blackwater PARCA includes land within Blackwater State Forest, Yellow River Wildlife Management Area, and Eglin Air Force Base, where many of the remaining reticulated flatwoods salamanders can be found. The Eglin Blackwater PARCA is also home to other imperiled species like the Florida bog frog and the pine barrens tree frog.

Escambia
Abutting the southwest corner of Alabama's Conecuh PARCA, the Escambia PARCA stretches from the Florida border to the Gulf of Mexico, encompassing the Escambia River and its floodplain, tributaries, and surrounding wetlands. Boasting a diverse assemblage of riverine species, this PARCA is home to several focal turtles, including the Escambia map turtle, the alligator snapping turtle, and the Gulf Coast smooth softshell. The Escambia River is surrounded by extensive floodplain swamps, with pockets of cypress, bogs, and forested wetlands. As the river winds southward and empties into Escambia Bay, forested wetlands increase until the landscape opens up into a large salt marsh.

Florida Green Swamp
Encompassing Richloam Wildlife Management Area and Green Swamp Wilderness Preserve, the Florida Green Swamp PARCA's basin swamps and pockets of flatwoods and cypress provide many reptiles and amphibians with refuge from the surrounding sprawl of urban development. Indigo snakes and spotted turtles call this area home, and like many other species, they can make long journeys or maintain large home ranges, placing them at increased risk of death by vehicle strike. Protecting large, contiguous areas of habitat and assuring connectivity between fragmented areas is imperative for their survival.

Florida Red Hills
The red clay soil and rolling hills of this region contain some of the last remaining native longleaf pine forests in the Southeast and characterize the Florida Red Hills PARCA. Expansive quail plantations and other private lands make up a large portion of the wildlands here, hosting numerous threatened and endangered plant and animal species. Management by this network of cooperative landowners and organizations has resulted in selective timber harvest and decades of prescribed fire application. While intended mainly to benefit bobwhite quail, these management practices have created an excellent matrix of ephemeral wetlands within longleaf pine habitat, home to imperiled species like the gopher tortoise, eastern tiger salamander, and ornate chorus frog.

Georgia Red Hills
The Georgia Red Hills PARCA consists of pine forests, old fields, and quail plantations, defined by its rolling hills and red clay soil. Large connected tracts of land support longleaf pine and numerous associated amphibian and reptile species.

Lake Seminole
The Lake Seminole PARCA is an extension of the Red Hills formation with clay-rich soil. It boasts mature longleaf pine savannas with diverse herbaceous ground cover, good structure from stump holes and tortoise burrows, and extensive open wetlands fed by springs. The longleaf pine communities and embedded isolated wetlands provide habitat for upland reptile species. The Lower Chattahoochee and Flint Rivers, as well as Spring Creek, support robust turtle populations, while seepages in the region harbor several salamander species.

Lake Wales Ridge
The Lake Wales Ridge PARCA is comprised of a sand ridge running for about 150 miles south to north in central Florida. Two million years ago, the surrounding area was underwater, and this ridge existed as a chain of small islands. Although the waters have receded, the islands continue to support distinctive life forms found nowhere else. Some of this area is protected by national wildlife refuges and state forests. But in the early twentieth century parts of the ridge were converted to citrus groves, and large areas, particularly in the north of the ridge, have been redeveloped for residential housing. This development harmed several endemic species, like North America's only sand-swimming skink, the sand skink, which leaves tracks as it "swims" just beneath the surface of the sand. This sandy ridge is also home to several other threatened species such as the gopher tortoise and the mole skink that once thrived in these landscapes. Ensuring habitat connectivity and protection from overdevelopment is a critical strategy to keep these endemic reptiles here for centuries to come.

Lower Keys
Spanning from Key West to Big Pine Key, the Lower Keys PARCA encompasses many islands and several conservation areas, as well as areas of human development and a Naval Air Station. Like many geographically isolated places, there are several island endemics (species or subspecies found nowhere else) found here, including the Key ringneck snake and Florida Keys mole skink. Protection for endemics, like the state threatened Lower Keys population of the Florida brown snake, is of utmost importance, as many only inhabit a small area. While small in size, this PARCA includes a variety of habitats, from pine rocklands to emergent and forested wetlands.

Merritt Island
Stretching along the space coast, the Merritt Island PARCA includes the Merritt Island National Wildlife Refuge, Indian River, and the Canaveral National Seashore. While much of the area is developed for considerable human use, there are pockets of habitat for focal species like the gopher tortoise and Florida mole kingsnake. Along the east side of the estuarine Indian River, salt marshes and oak scrub are prevalent, with patches of hydric and maritime hammocks. On the east side of the Banana River, scrub land is interspersed with marsh and pine flatwoods. Great numbers of loggerhead, green, and leatherback sea turtles nest along the Canaveral National Seashore.

Ocala
Ocala National Forest and Lake George State Forest are contained within the Ocala PARCA, one of Florida's largest. Vast areas of sand pine scrub with embedded sandhill islands provide habitat for imperiled reptiles like the Florida scrub lizard and sand skink, while ephemeral wetlands are home to the most robust remaining populations of striped newts and gopher frogs in existence. Protecting these environments is increasingly urgent, as human development and impervious surfaces almost entirely encircle this PARCA, making it a true refuge for many species.

Okefenokee Swamp
The Okefenokee Swamp PARCA contains the largest blackwater swamp in the United States with very acidic water that feeds several major rivers in the region. Cypress and tupelo trees are abundant throughout the swamp, with xeric islands dotting the interior with pitch pine and palmetto. A sandy ridge forms the eastern edge of the swamp with longleaf pine and upland ephemeral wetlands. Multiple amphibian and reptile species found in very few other places in southeast Georgia thrive here.

Perdido River
The Perdido River flows through southern Alabama and was once dominated by longleaf pine; today human development, logging, and absence of fire has left only 4% remaining. These deep sands are home to many imperiled reptiles and amphibians that existed for millions of years in these longleaf pine forests, and with cooperative conservation measures, will hopefully live for a million more. A diversity of frog species inhabit the PARCA, including the Cope’s gray tree frog, barking tree frog, northern spring peeper, eastern narrowmouth toad, eastern spadefoot, and southern leopard frog.

St. Marks
Encompassing St. Marks National Wildlife Refuge, this PARCA includes a range of habitat along the Gulf Coast; pine flatwoods, mesic hammocks, and sandhills are common in the uplands, with scrubby flatwoods transitioning to coastal salt marshes. This PARCA supports several species of conservation

concern, including the frosted flatwoods salamander. Frosted flatwoods salamander populations' low-lying, coastal habitat means the saltwater intrusion from a major storm event could potentially wipe out one of the two remaining strongholds for this imperiled amphibian. Wetlands here are threatened not only by saltwater intrusion, but by woody encroachment by species like titi and hollies, which shade out herbaceous groundcover and alter hydroperiod with their water consumption. Application of growing season prescribed fire is integral to maintaining the open-canopy wetlands many amphibians need.

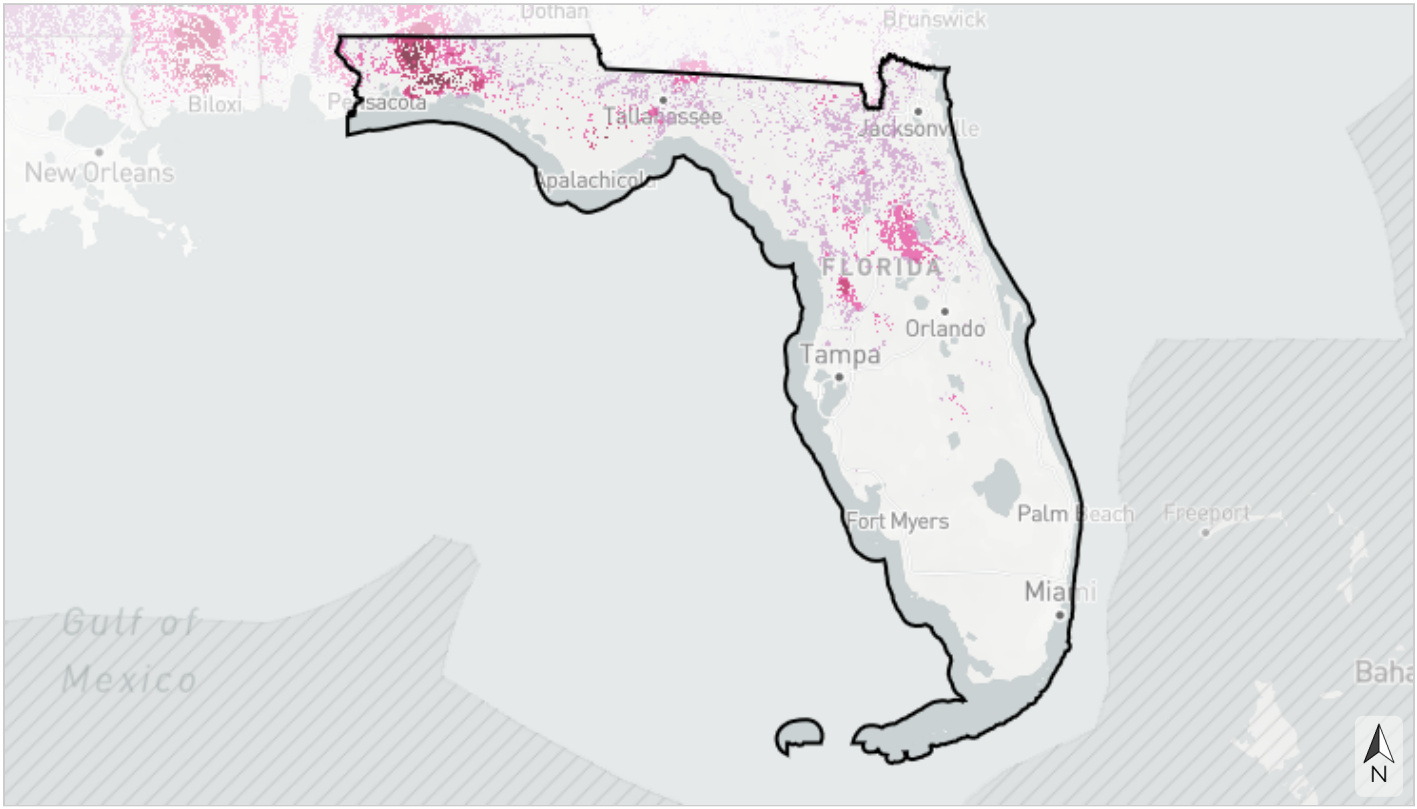
Suwannee/Santa Fe/Osceola
Sprawling across much of North Florida, the Suwannee/Santa Fe/Osceola PARCA includes the expansive Osceola National Forest and winds around the Suwannee and Santa Fe Rivers. The extensive pine flatwoods and swamps of Osceola National Forest are home to many reptiles and amphibians, including the alligator snapping turtle and many-lined salamander. The southern tendrils of the PARCA snake along the Suwannee and Santa Fe Rivers and their surrounding freshwater forested wetlands, floodplain swamps, and mixed hardwood-coniferous forests, which provide riverine and upland sandhill habitat for Suwannee cooters and gopher tortoises.

To learn more and explore the GIS data, view this indicator in the SECAS Atlas.

Terrestrial

East Coastal Plain open pine birds

This indicator identifies areas within the historic longleaf pine range east of the Mississippi River where creating or maintaining open pine habitat would most benefit six focal species of birds (Bachman's sparrow, red-cockaded woodpecker, Henslow's sparrow, red-headed woodpecker, Northern bobwhite, brown-headed nuthatch). It prioritizes areas for open pine conservation based on suitability for longleaf pine, feasibility of prescribed burning, proximity to protected lands, habitat suitability for focal bird species, and proximity to bird source populations. It originates from the East Gulf Coastal Plain Joint Venture's prioritization of areas for open pine ecosystem restoration.



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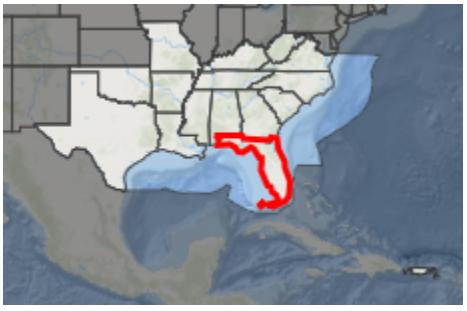


Priority for open pine conservation for focal bird species

- High priority (score >80-100)
- Medium-high priority (score >60-80)
- Medium priority (score >40-60)
- Medium-low priority (score >20-40)
- Low priority (score 0-20)
- Not a priority (not identified as upland pine)

Table 7: Indicator values for East Coastal Plain open pine birds within Florida. A good condition threshold is not yet defined for this indicator.

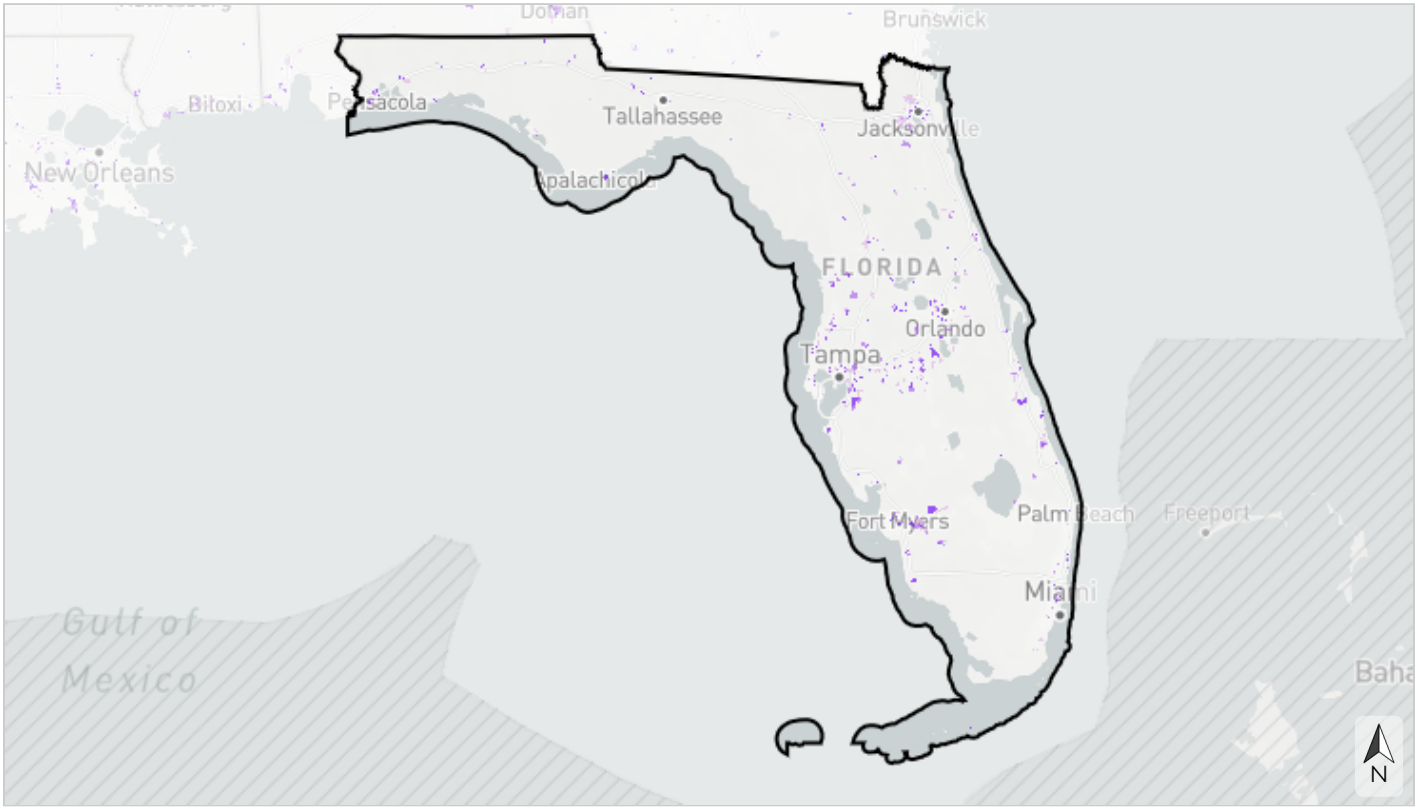
	Indicator Values: Priority for open pine conservation for focal bird species	Acres	Percent of Area
↑ High	High priority (score >80-100)	141,076	0.3%
	Medium-high priority (score >60-80)	401,386	0.9%
	Medium priority (score >40-60)	1,227,550	2.7%
	Medium-low priority (score >20-40)	3,593,119	7.9%
	Low priority (score 0-20)	564,675	1.2%
↓ Low	Not a priority (not identified as upland pine)	21,037,779	46.0%
	Area not evaluated for this indicator	*18,732,576*	*41.0%*
	Total area	**45,698,163**	**100%**

To learn more and explore the GIS data, view this indicator in the SECAS Atlas.

Terrestrial

Equitable access to potential parks

This cultural resource indicator prioritizes places to create new parks that would fill gaps in equitable access to open space within socially vulnerable communities in urban areas. It identifies areas where residents currently lack access to parks within a 10-minute walk (accounting for walkable road networks and access barriers like highways and fences), then prioritizes based on park need using demographic and environmental metrics. Parks help improve public health, foster a conservation ethic by providing opportunities for people to connect with nature, and support critical ecosystem services. This indicator originates from the Trust for Public Land's ParkServe park priority areas and the Center for Disease Control's Social Vulnerability Index.



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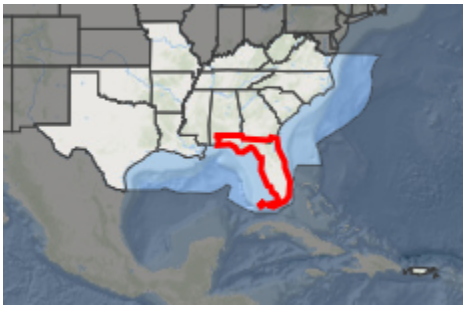


Priority for a new park that would create nearby equitable access

- Very high priority
- High priority
- Moderate priority
- Not identified as a priority (within urban areas)

Table 8: Indicator values for equitable access to potential parks within Florida. A good condition threshold is not yet defined for this indicator.

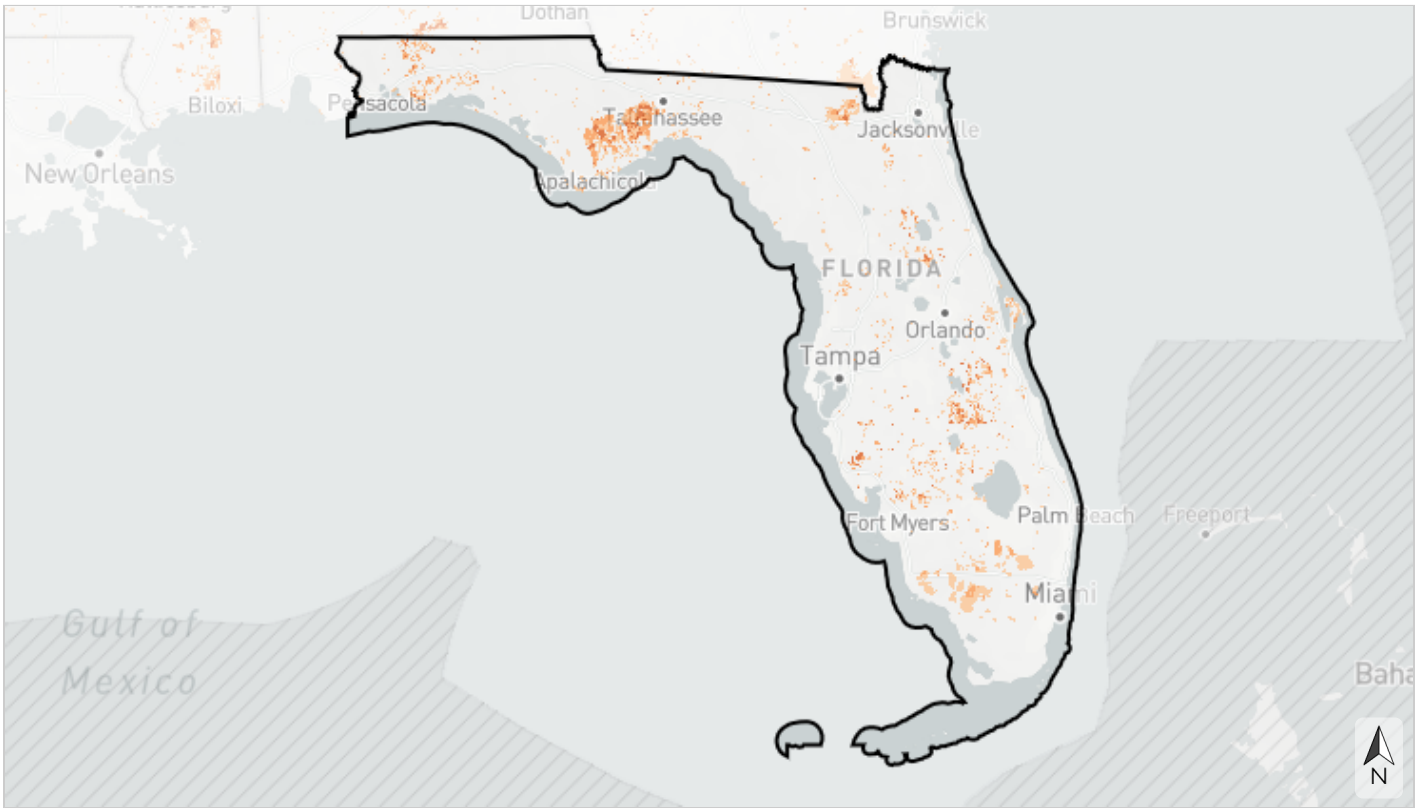
	Indicator Values: Priority for a new park that would create nearby equitable access	Acres	Percent of Area
↑ High	Very high priority	242,084	0.5%
	High priority	251,217	0.5%
	Moderate priority	322,143	0.7%
↓ Low	Not identified as a priority (within urban areas)	36,486,525	79.8%
	Area not evaluated for this indicator	*8,396,193*	*18.4%*
	Total area	**45,698,163**	**100%**

To learn more and explore the GIS data, view this indicator in the SECAS Atlas.

Terrestrial

Fire frequency

This indicator uses remote sensing to estimate the number of times an area has been burned from 2013 to 2021. Many Southeastern ecosystems rely on regular, low-intensity fires to maintain habitat, encourage native plant growth, and reduce wildfire risk. This indicator combines burned area layers from U.S. Geological Survey Landsat data and the inter-agency Monitoring Trends in Burn Severity program. Landsat-based fire predictions within the range of longleaf pine are also available through Southeast FireMap.



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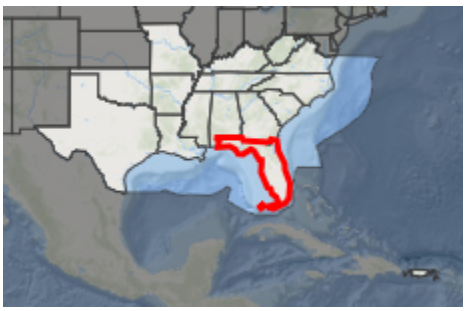


- Burned 3+ times from 2013-2021
- Burned 2 times from 2013-2021
- Burned 1 time from 2013-2021
- Not burned from 2013-2021 or row crop

Table 9: Indicator values for fire frequency within Florida. Good condition thresholds reflect the range of indicator values that occur in healthy, functioning ecosystems.

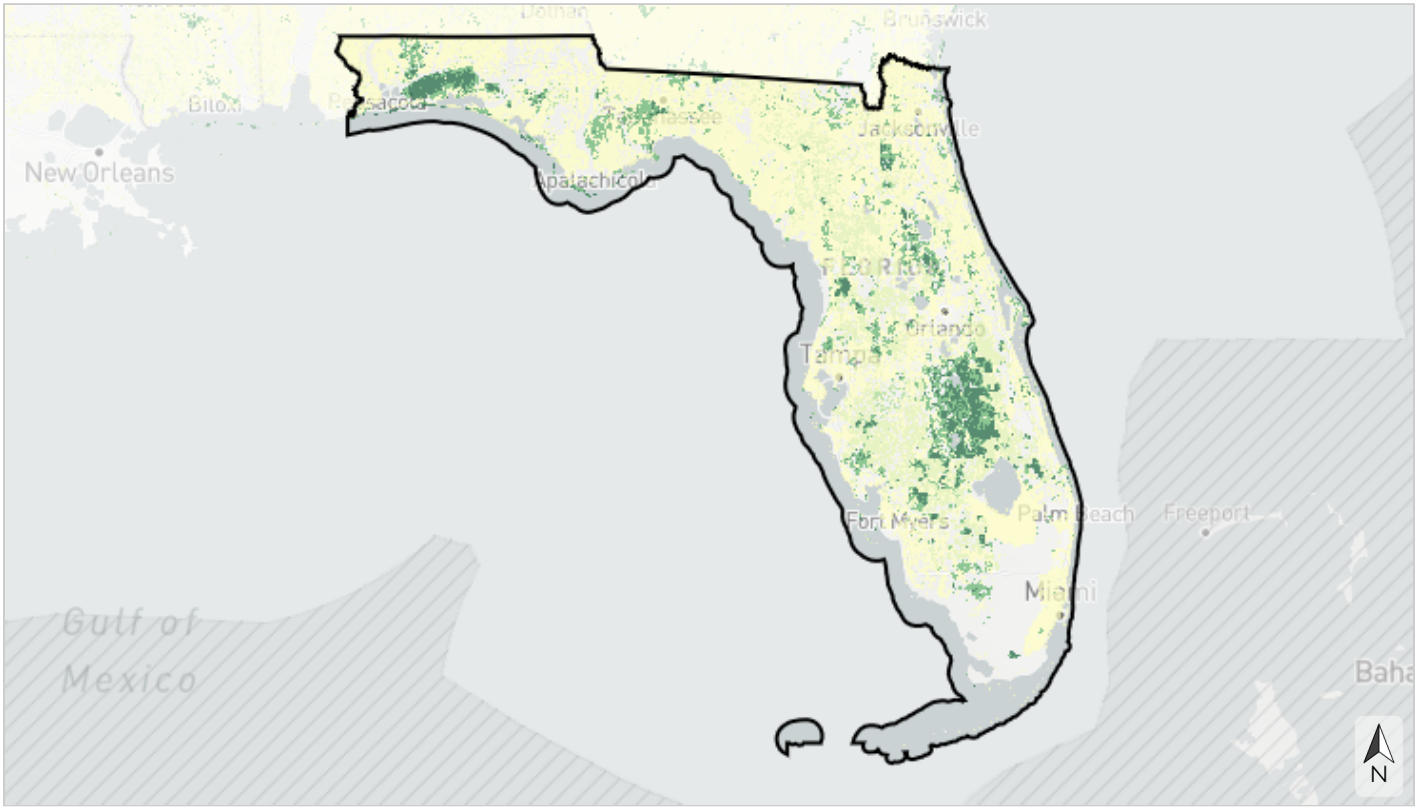
	Indicator Values	Acres	Percent of Area	
↑ High	Burned 3+ times from 2013-2021	233,686	0.5%	
	Burned 2 times from 2013-2021	798,439	1.7%	↑ In good condition
	Burned 1 time from 2013-2021	2,400,843	5.3%	↓ Not in good condition
↓ Low	Not burned from 2013-2021 or row crop	38,608,848	84.5%	
	Area not evaluated for this indicator	*3,656,346*	*8.0%*	
	Total area	**45,698,163**	**100%**	

To learn more and explore the GIS data, view this indicator in the SECAS Atlas.

Terrestrial

Grasslands and savannas

This indicator represents grasslands and savannas in the southeastern United States, which support important plants, reptiles, amphibians, mammals, birds, and pollinators. It considers known grassland and savanna locations, likely locations managed for biodiversity, and surrounding pollinator buffers. It also incorporates other potential grassland and savanna locations within natural and altered landscapes, and restoration opportunities within historic locations based on past fire intervals and historic ecosystem predictions. This indicator combines data from multiple sources, including the Southeastern Grasslands Institute, the National Land Cover Database, LANDFIRE biophysical settings, Oklahoma and Texas ecological systems maps, and more.



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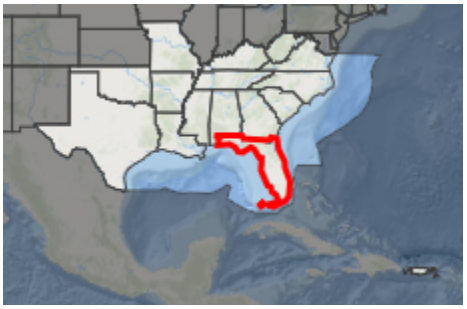


- Known grassland/savanna
- Likely grassland/savanna >10 acres
- Likely grassland/savanna ≤10 acres
- Pollinator buffer around known or likely grassland/savanna
- Potential grassland/savanna in mostly natural landscape
- Potential grassland/savanna in more altered landscape
- Historic grassland/savanna
- Not identified as grassland/savanna

Table 10: Indicator values for grasslands and savannas within Florida. Good condition thresholds reflect the range of indicator values that occur in healthy, functioning ecosystems.

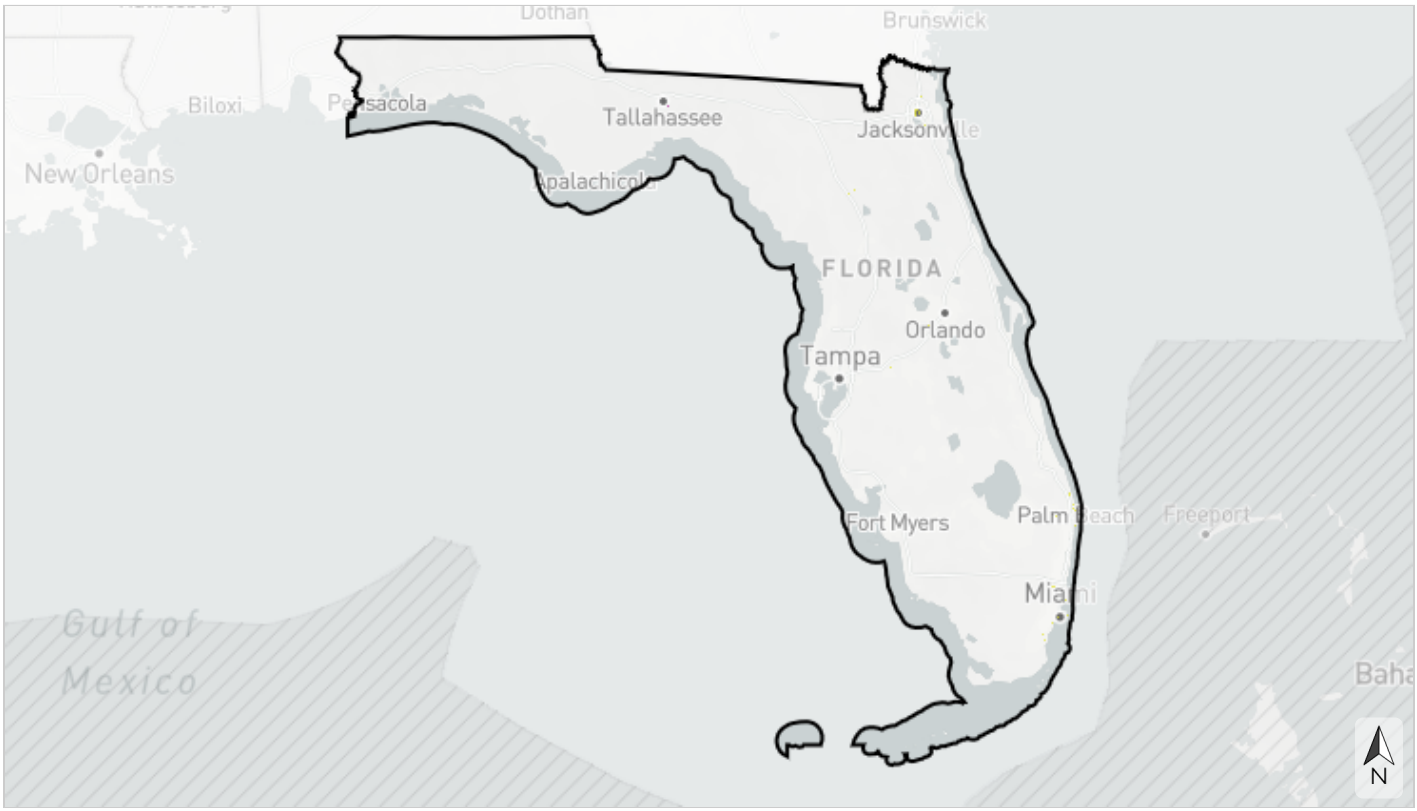
	Indicator Values	Acres	Percent of Area	
↑ High	Known grassland/savanna	0	0%	
	Likely grassland/savanna >10 acres	1,576,616	3.5%	
	Likely grassland/savanna ≤10 acres	151,903	0.3%	↑ In good condition
	Pollinator buffer around known or likely grassland/savanna	2,567,519	5.6%	↓ Not in good condition
	Potential grassland/savanna in mostly natural landscape	773,538	1.7%	
	Potential grassland/savanna in more altered landscape	4,519,409	9.9%	
	Historic grassland/savanna	14,735,914	32.2%	
↓ Low	Not identified as grassland/savanna	12,977,308	28.4%	
	Area not evaluated for this indicator	*8,395,956*	*18.4%*	
	Total area	**45,698,163**	**100%**	

To learn more and explore the GIS data, view this indicator in the SECAS Atlas.

Terrestrial

Greenways & trails

This cultural resource indicator measures both the natural condition and connected length of greenways and trails to characterize the quality of the recreational experience. Natural condition is based on the amount of impervious surface surrounding the path. Connected length captures how far a person can go without leaving a dedicated path, based on common distances for walking, running, and biking. This indicator originates from OpenStreetMap data and the National Land Cover Database.



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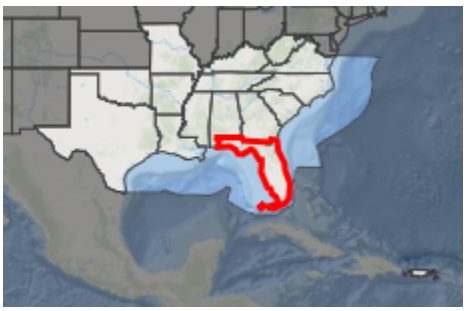


- Mostly natural and connected for ≥40 km
- Mostly natural and connected for 5 to <40 km or partly natural and connected for ≥40 km
- Mostly natural and connected for 1.9 to <5 km, partly natural and connected for 5 to <40 km, or developed and connected for ≥40 km
- Mostly natural and connected for <1.9 km, partly natural and connected for 1.9 to <5 km, or developed and connected for 5 to <40 km
- Partly natural and connected for <1.9 km or developed and connected for 1.9 to <5 km
- Developed and connected for <1.9 km
- Sidewalk
- Not identified as a trail, sidewalk, or other path

Table 11: Indicator values for greenways & trails within Florida. Good condition thresholds reflect the range of indicator values that occur in healthy, functioning ecosystems.

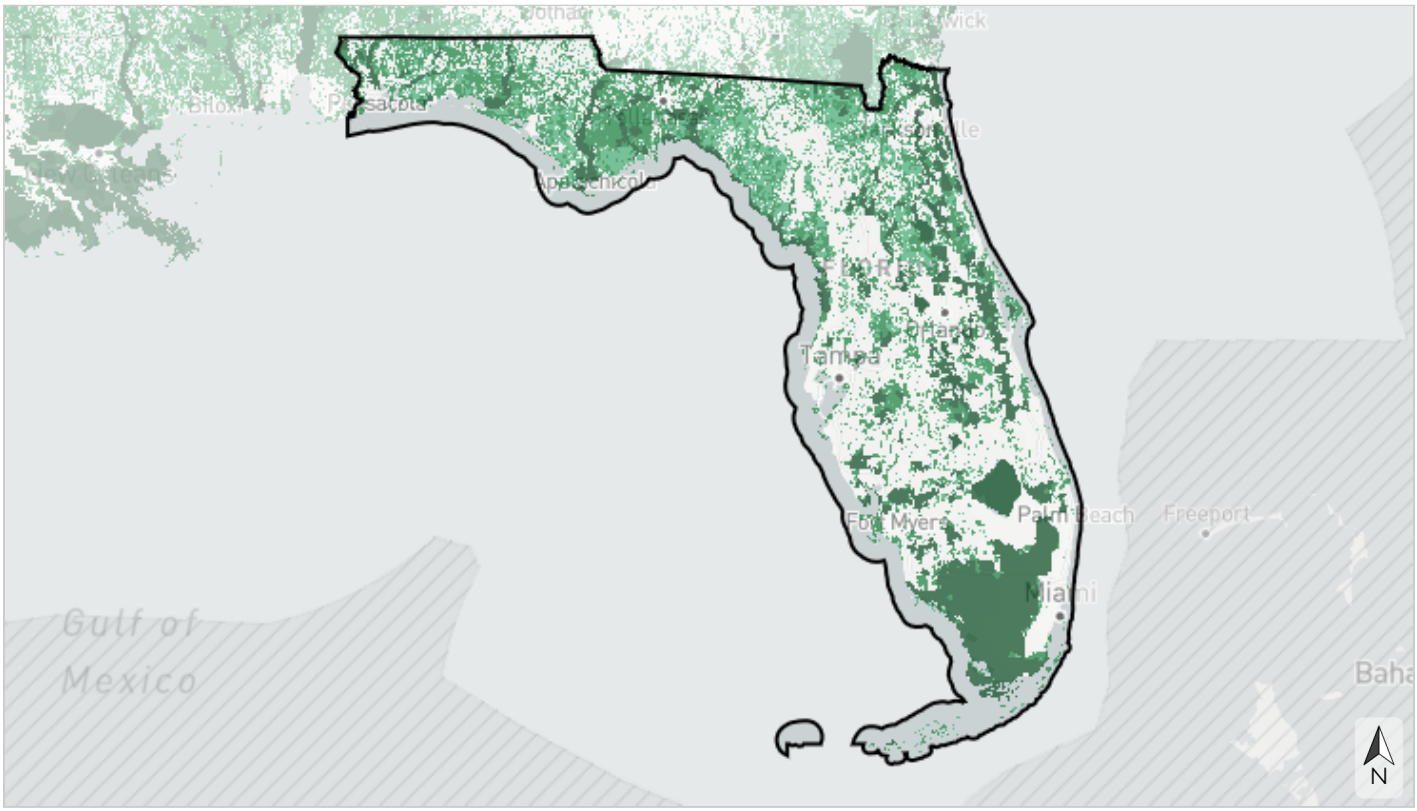
	Indicator Values	Acres	Percent of Area	
↑ High	Mostly natural and connected for ≥40 km	15,062	<0.1%	
	Mostly natural and connected for 5 to <40 km or partly natural and connected for ≥40 km	28,770	<0.1%	
	Mostly natural and connected for 1.9 to <5 km, partly natural and connected for 5 to <40 km, or developed and connected for ≥40 km	50,065	0.1%	
	Mostly natural and connected for <1.9 km, partly natural and connected for 1.9 to <5 km, or developed and connected for 5 to <40 km	23,292	<0.1%	↑ In good condition
	Partly natural and connected for <1.9 km or developed and connected for 1.9 to <5 km	12,620	<0.1%	↓ Not in good condition
	Developed and connected for <1.9 km	19,977	<0.1%	
	Sidewalk	211,412	0.5%	
↓ Low	Not identified as a trail, sidewalk, or other path	41,570,672	91.0%	
	Area not evaluated for this indicator	*3,766,292*	*8.2%*	
	Total area	**45,698,163**	**100%**	

To learn more and explore the GIS data, view this indicator in the SECAS Atlas.

Terrestrial

Intact habitat cores

This indicator represents the size of large, unfragmented patches of natural habitat. It identifies minimally disturbed natural areas at least 100 acres in size and greater than 200 meters wide. Large areas of intact natural habitat are important for many wildlife species, including reptiles and amphibians, birds, and large mammals. This indicator originates from Esri's green infrastructure data.



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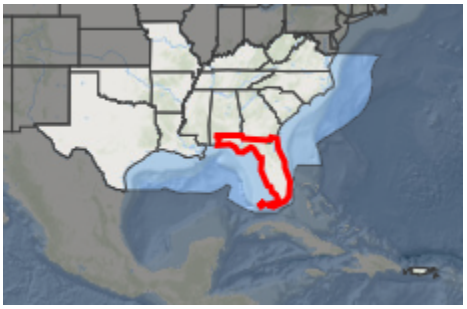


- Large core (>10,000 acres)
- Medium core (>1,000-10,000 acres)
- Small core (>100-1,000 acres)
- Not a core

Table 12: Indicator values for intact habitat cores within Florida. Good condition thresholds reflect the range of indicator values that occur in healthy, functioning ecosystems.

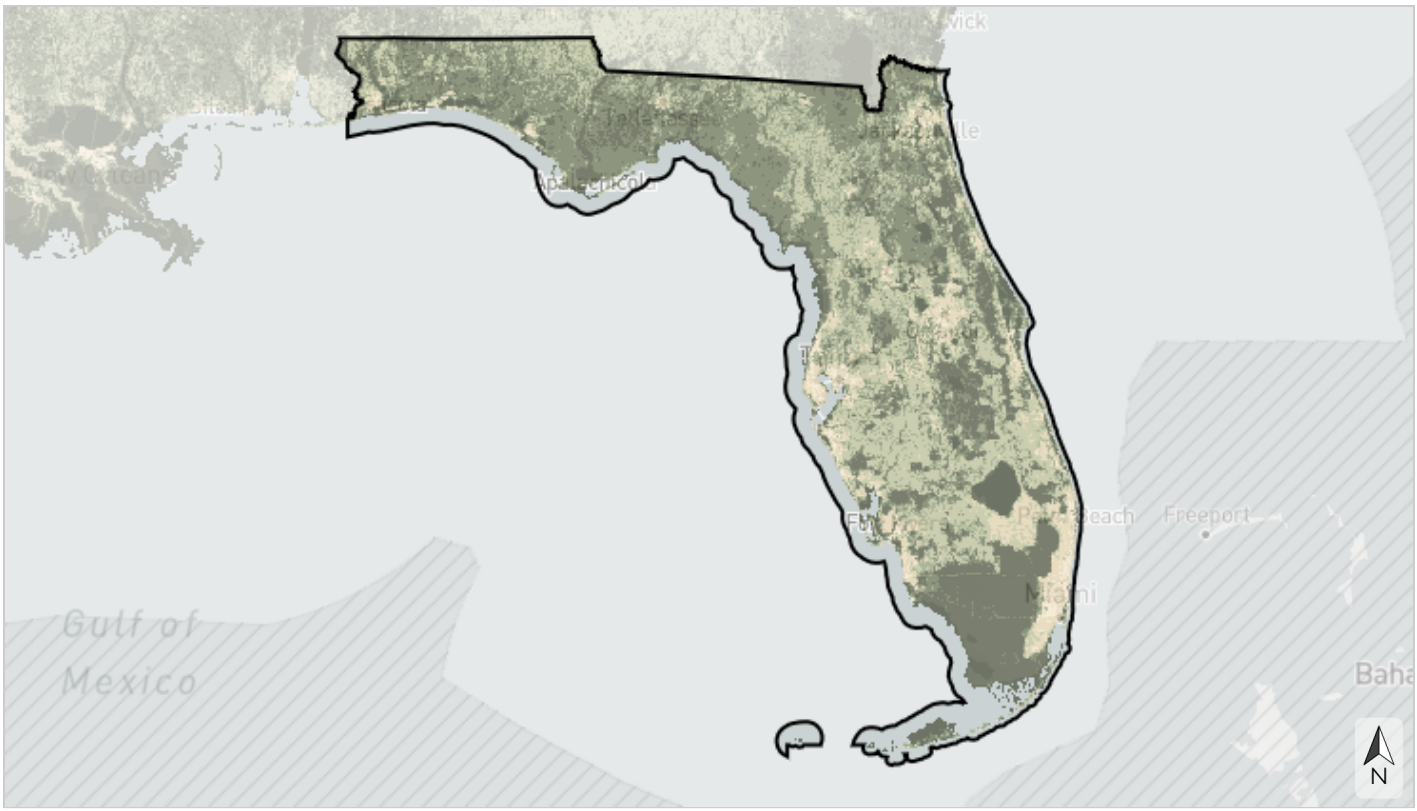
	Indicator Values	Acres	Percent of Area	
↑ High	Large core (>10,000 acres)	7,393,557	16.2%	
	Medium core (>1,000-10,000 acres)	6,521,439	14.3%	
	Small core (>100-1,000 acres)	4,822,409	10.6%	↑ In good condition
↓ Low	Not a core	23,249,003	50.9%	↓ Not in good condition
	Area not evaluated for this indicator	*3,711,754*	*8.1%*	
	Total area	**45,698,163**	**100%**	

To learn more and explore the GIS data, view this indicator in the SECAS Atlas.

Terrestrial

Landscape condition

This indicator represents natural areas with limited human alteration while also considering the naturalness of the surrounding landscape. Examples of human alteration include urban development and intense agricultural use. The degree of naturalness across the landscape is a key ecological condition for sustaining species and ecosystem services that are sensitive to habitat fragmentation at multiple scales. This indicator uses the National Land Cover Dataset, various data on grasslands, mines, and quarries, and ideas from the Florida Critical Lands and Waters Identification Project's approach for evaluating landscape integrity.



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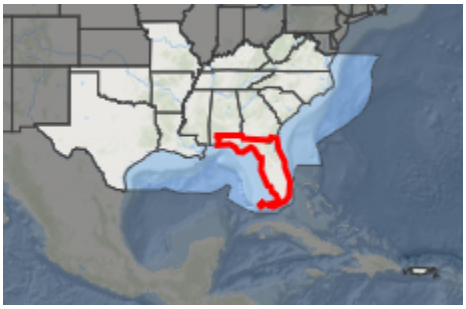


- Very natural landscape
- Natural landscape
- Mostly natural landscape
- Partly natural landscape
- Altered landscape
- Heavily altered landscape

Table 13: Indicator values for landscape condition within Florida. Good condition thresholds reflect the range of indicator values that occur in healthy, functioning ecosystems.

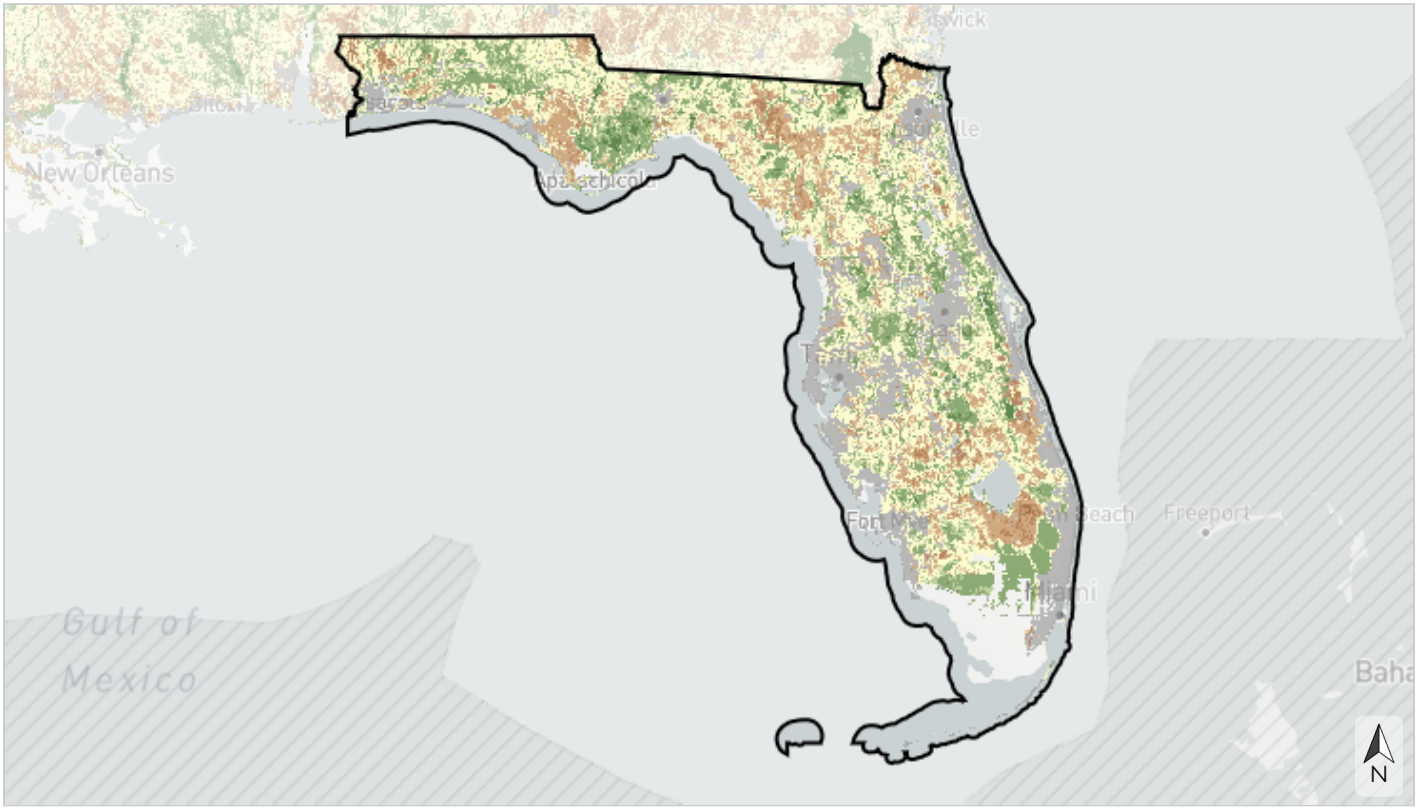
	Indicator Values	Acres	Percent of Area	
↑ High	Very natural landscape	8,303,525	18.2%	
	Natural landscape	10,030,237	21.9%	
	Mostly natural landscape	7,462,067	16.3%	↑ In good condition
	Partly natural landscape	8,047,205	17.6%	↓ Not in good condition
	Altered landscape	2,692,713	5.9%	
↓ Low	Heavily altered landscape	766,459	1.7%	
	Area not evaluated for this indicator	*8,395,956*	*18.4%*	
	Total area	**45,698,163**	**100%**	

To learn more and explore the GIS data, view this indicator in the SECAS Atlas.

Terrestrial

Resilient terrestrial sites

This indicator depicts an area's capacity to maintain species diversity and ecosystem function in the face of climate change. It measures two factors that influence resilience. The first, landscape diversity, reflects the number of microhabitats and climatic gradients created by topography, elevation, and hydrology. The second, local connectedness, reflects the degree of habitat fragmentation and strength of barriers to species movement. Highly resilient sites contain many different habitat niches that support biodiversity, and allow species to move freely through the landscape to find suitable microclimates as the climate changes. This indicator originates from The Nature Conservancy's Resilient Land data.



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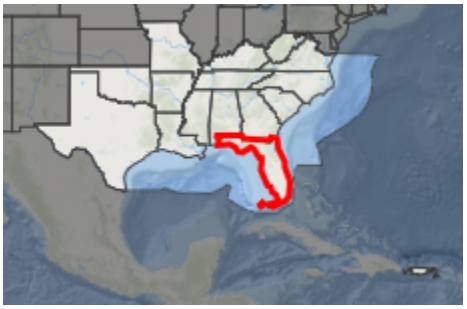


- Most resilient
- More resilient
- Slightly more resilient
- Average/median resilience
- Slightly less resilient
- Less resilient
- Least resilient
- Developed

Table 14: Indicator values for resilient terrestrial sites within Florida. A good condition threshold is not yet defined for this indicator.

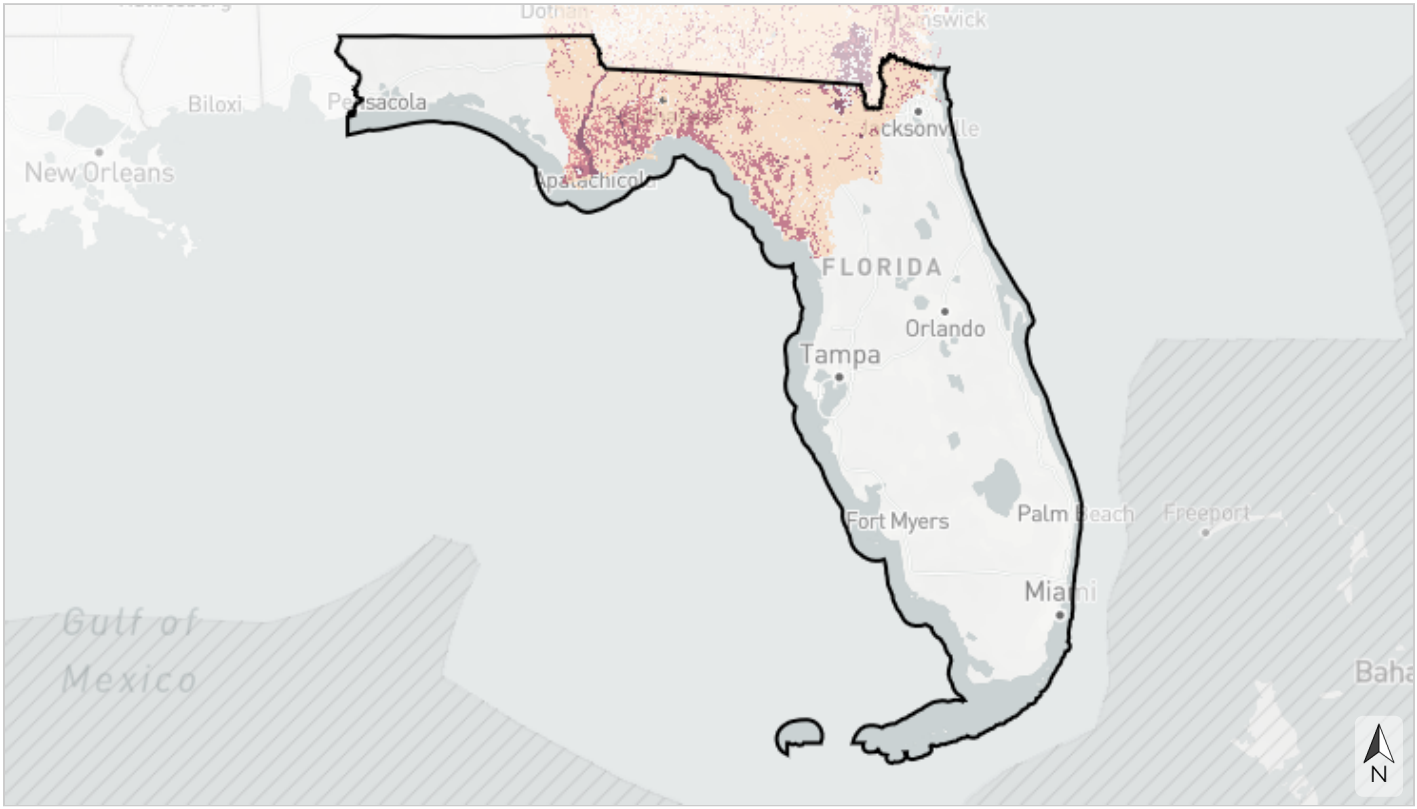
	Indicator Values	Acres	Percent of Area
↑ High	Most resilient	540,595	1.2%
	More resilient	4,110,579	9.0%
	Slightly more resilient	3,773,682	8.3%
	Average/median resilience	8,189,379	17.9%
	Slightly less resilient	3,179,043	7.0%
	Less resilient	3,497,260	7.7%
	Least resilient	866,993	1.9%
↓ Low	Developed	5,375,658	11.8%
	Area not evaluated for this indicator	*16,164,974*	*35.4%*
	Total area	**45,698,163**	**100%**

To learn more and explore the GIS data, view this indicator in the SECAS Atlas.

Terrestrial

South Atlantic forest birds

This indicator is an index of habitat suitability for twelve upland hardwood and forested wetland bird species (wood thrush, whip-poor-will, American woodcock, red-headed woodpecker, Chuck-will's widow, hooded warbler, Kentucky warbler, Acadian flycatcher, Northern parula, black-throated green warbler, prothonotary warbler, Swainson's warbler) based on patch size and other ecosystem characteristics such as proximity to water and proximity to forest and ecotone edge. The needs of these species are increasingly restrictive at higher index values, reflecting better quality habitat. It originates from Southeast Gap Analysis Program and Designing Sustainable Landscapes bird habitat models.



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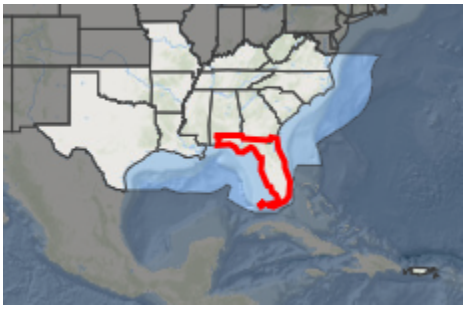


Potential for presence of forest bird index species

- Very large patches near water (potential for Swainson's warbler)
- Large patches often near water (potential for Northern parula, black-throated green warbler, or Prothonotary warbler)
- Medium patches (potential for Acadian flycatcher)
- Small patches often near water (potential for hooded warbler or Kentucky warbler)
- Very small patches or near open areas (potential for wood thrush, whip-poor-will, red-headed woodpecker, Chuck-will's widow, or American woodcock)
- Less potential

Table 15: Indicator values for South Atlantic forest birds within Florida. Good condition thresholds reflect the range of indicator values that occur in healthy, functioning ecosystems.

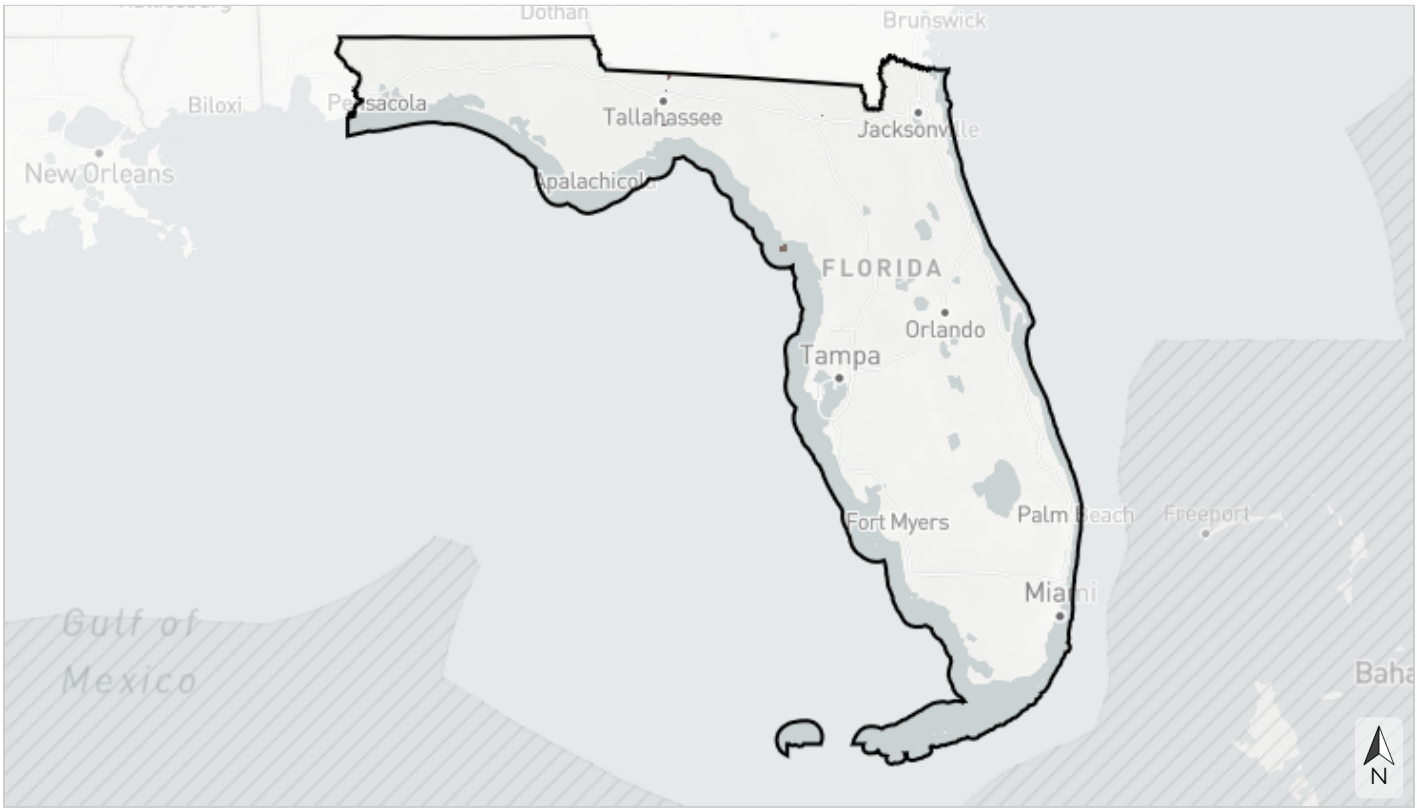
	Indicator Values: Potential for presence of forest bird index species	Acres	Percent of Area	
↑ High	Very large patches near water (potential for Swainson's warbler)	184,657	0.4%	
	Large patches often near water (potential for Northern parula, black-throated green warbler, or Prothonotary warbler)	1,629,936	3.6%	
	Medium patches (potential for Acadian flycatcher)	431,559	0.9%	
	Small patches often near water (potential for hooded warbler or Kentucky warbler)	103,594	0.2%	↑ In good condition
	Very small patches or near open areas (potential for wood thrush, whip-poor-will, red-headed woodpecker, Chuck-will's widow, or American woodcock)	5,789,774	12.7%	↓ Not in good condition
↓ Low	Less potential	2,044,572	4.5%	
	Area not evaluated for this indicator	*35,514,072*	*77.7%*	
	Total area	**45,698,163**	**100%**	

To learn more and explore the GIS data, view this indicator in the SECAS Atlas.

Terrestrial

South Atlantic low-urban historic landscapes

This cultural resource indicator is an index of sites on the National Register of Historic Places surrounded by limited urban development. It identifies significant historic places that remain connected to their context in the natural world. It uses the National Land Cover Database and historic places data from the National Park Service and various state historic resource agencies.



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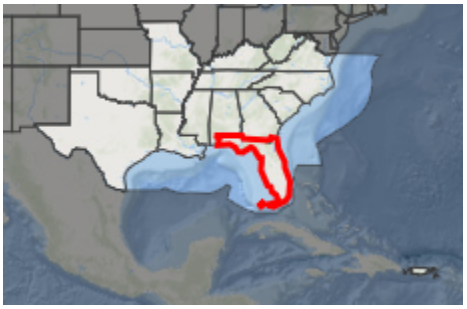


- Historic place with nearby low-urban buffer
- Historic place with nearby high-urban buffer
- Not in the National Register of Historic Places

Table 16: Indicator values for South Atlantic low-urban historic landscapes within Florida. A good condition threshold is not yet defined for this indicator.

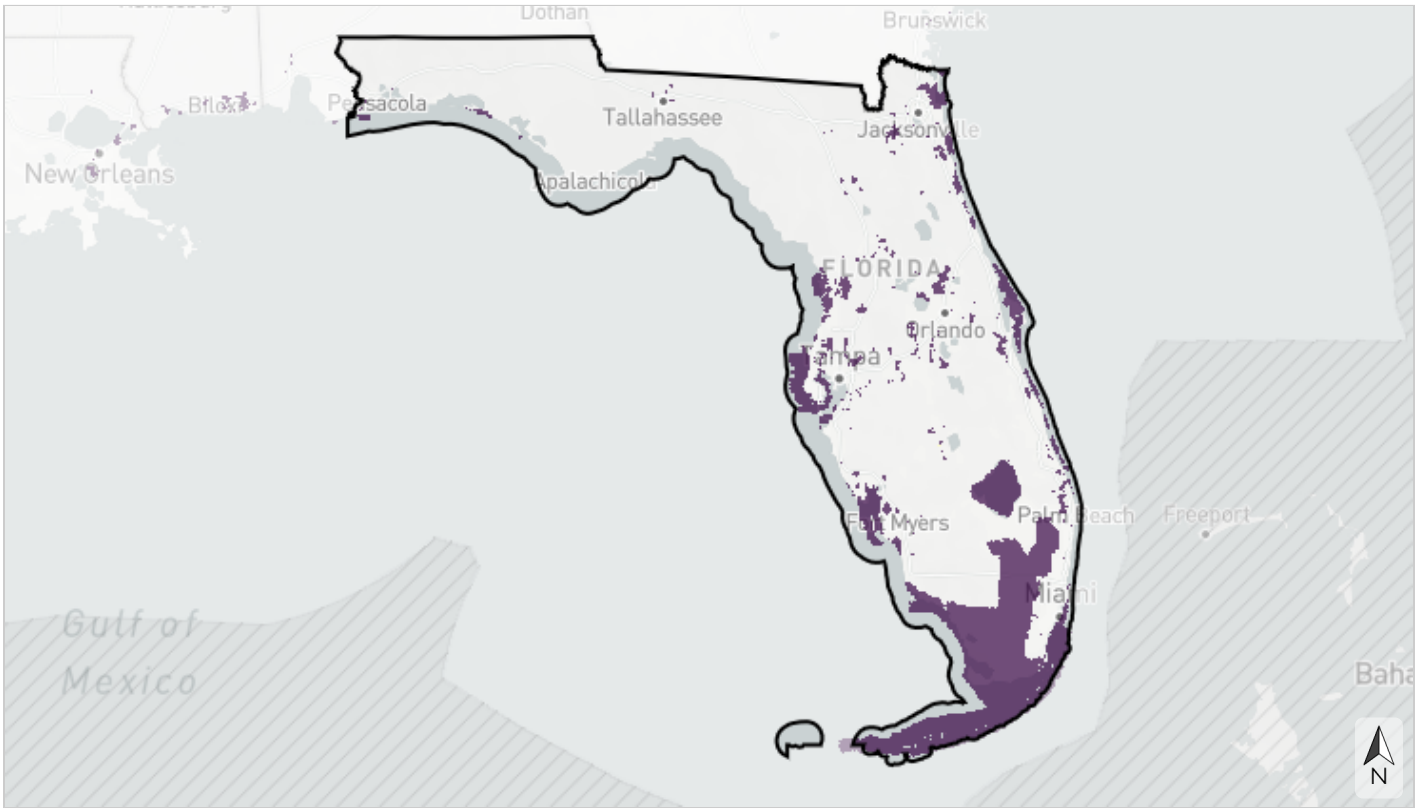
	Indicator Values	Acres	Percent of Area
↑ High	Historic place with nearby low-urban buffer	23,523	<0.1%
	Historic place with nearby high-urban buffer	2,915	<0.1%
↓ Low	Not in the National Register of Historic Places	9,965,648	21.8%
	Area not evaluated for this indicator	*35,706,076*	*78.1%*
	Total area	**45,698,163**	**100%**

To learn more and explore the GIS data, view this indicator in the SECAS Atlas.

Terrestrial

Urban park size

This cultural resource indicator measures the size of parks larger than 5 acres in the urban environment. Protected natural areas in urban environments provide urban residents a nearby place to connect with nature, and offer refugia for some species. This indicator complements the equitable access to potential parks indicator by capturing the value of existing parks. It originates from the Protected Areas Database of the United States, Census urban areas, and the National Land Cover Database.



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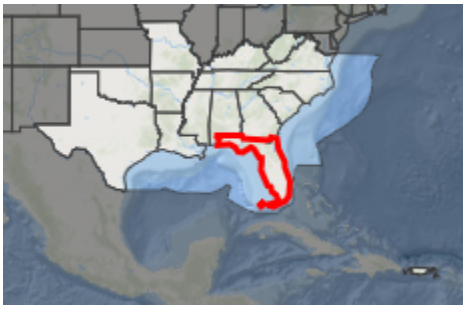


- 75+ acre urban park
- 50 to <75 acre urban park
- 30 to <50 acre urban park
- 10 to <30 acre urban park
- 5 to <10 acre urban park
- <5 acre urban park
- Not identified as an urban park

Table 17: Indicator values for urban park size within Florida. A good condition threshold is not yet defined for this indicator.

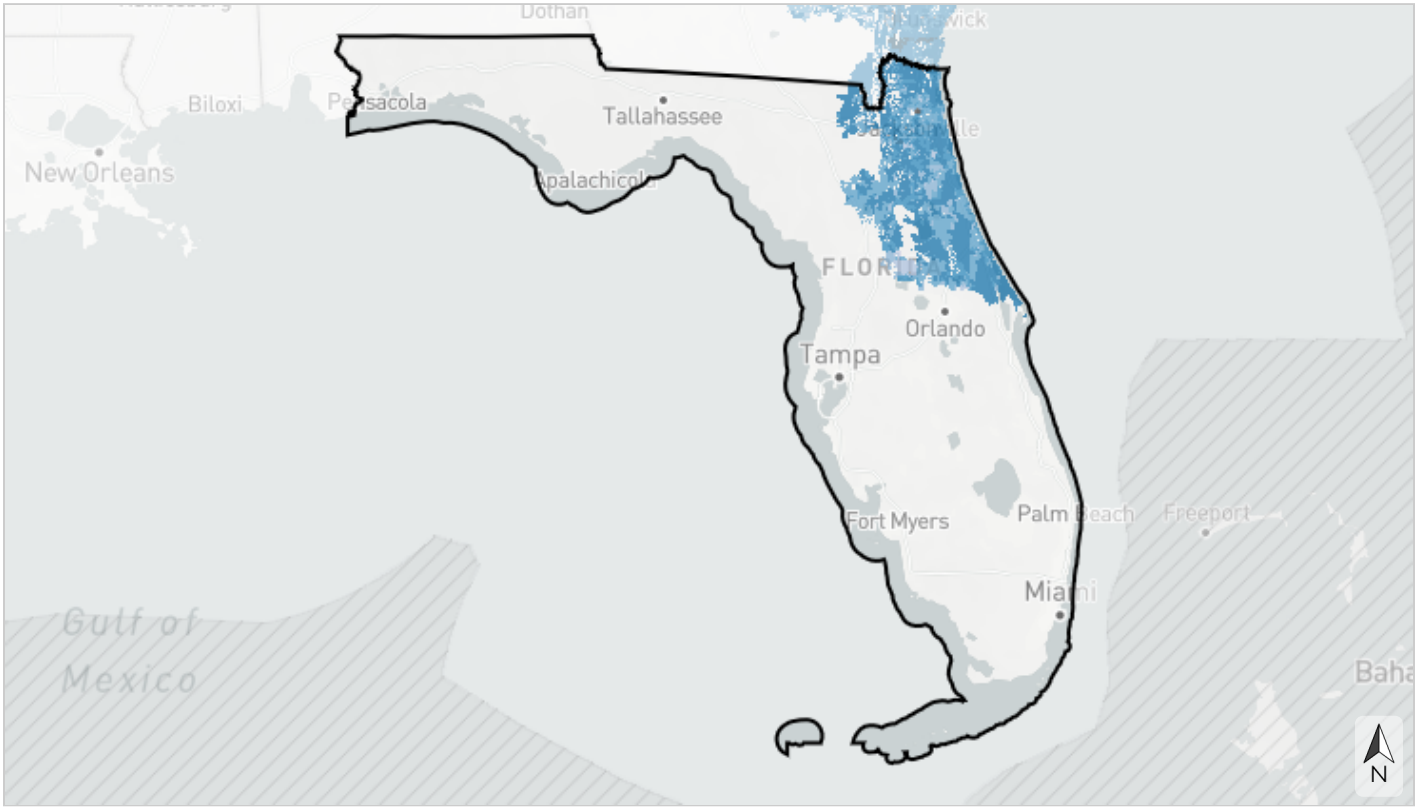
	Indicator Values	Acres	Percent of Area
↑ High	75+ acre urban park	6,742,268	14.8%
	50 to <75 acre urban park	16,322	<0.1%
	30 to <50 acre urban park	18,272	<0.1%
	10 to <30 acre urban park	30,535	<0.1%
	5 to <10 acre urban park	14,201	<0.1%
	<5 acre urban park	19,211	<0.1%
↓ Low	Not identified as an urban park	35,808,254	78.4%
	Area not evaluated for this indicator	*3,049,099*	*6.7%*
	Total area	**45,698,163**	**100%**

To learn more and explore the GIS data, view this indicator in the SECAS Atlas.

Freshwater

Atlantic migratory fish habitat

This indicator measures the condition of migratory fish habitat along the Atlantic coast within each catchment, using metrics of water quality, aquatic connectivity, habitat fragmentation, flow alteration, and more. Areas of excellent fish habitat are already in good condition and face few threats. Restoration opportunity areas are doing well in some respects, but restoration projects could significantly improve them. Degraded areas of opportunity face many challenges, and restoration projects are unlikely to increase available fish habitat unless particularly large in scope and scale. This indicator originates from the Atlantic Coast Fish Habitat Partnership's fish habitat conservation area mapping and prioritization project.



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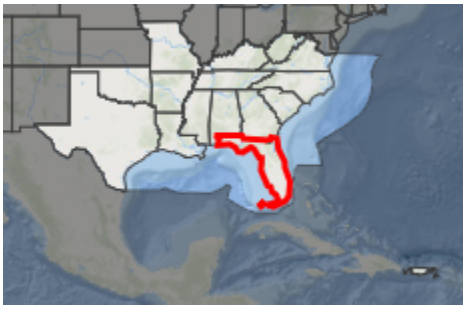


- Final score of 80 (areas of excellent fish habitat)
- Final score of 70 (areas of excellent fish habitat)
- Final score of 60 (restoration opportunity areas)
- Final score of 50 (restoration opportunity areas)
- Final score of 40 (restoration opportunity areas)
- Final score of 30 (restoration opportunity areas)
- Final score of 20 (restoration opportunity areas)
- Final score of 10 (degraded areas of opportunity)
- Final score of 0 (degraded areas of opportunity)

Table 18: Indicator values for Atlantic migratory fish habitat within Florida. Good condition thresholds reflect the range of indicator values that occur in healthy, functioning ecosystems.

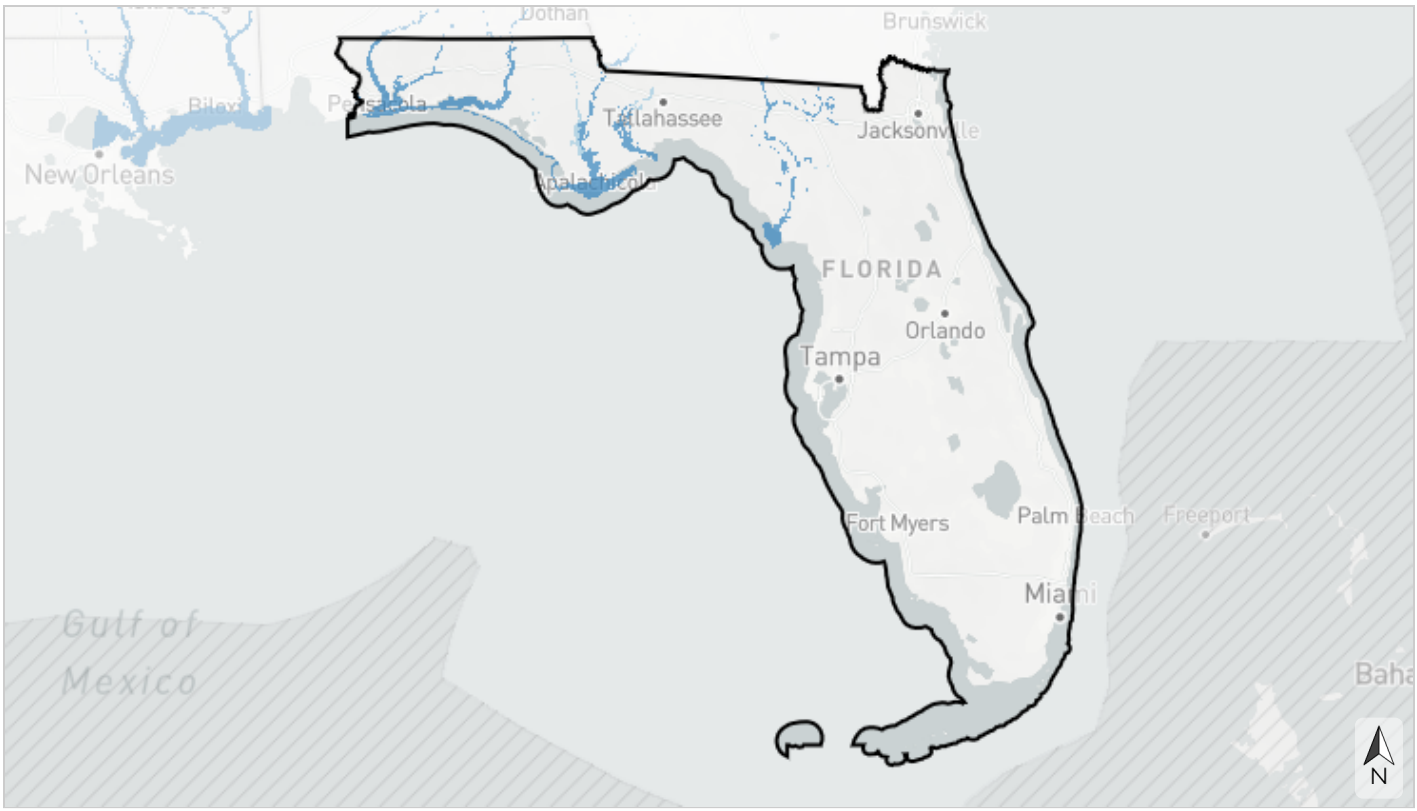
	Indicator Values	Acres	Percent of Area	
↑ High	Final score of 80 (areas of excellent fish habitat)	12,580	<0.1%	
	Final score of 70 (areas of excellent fish habitat)	5,591	<0.1%	↑ In good condition
	Final score of 60 (restoration opportunity areas)	905,271	2.0%	↓ Not in good condition
	Final score of 50 (restoration opportunity areas)	262,010	0.6%	
	Final score of 40 (restoration opportunity areas)	314,311	0.7%	
	Final score of 30 (restoration opportunity areas)	69,171	0.2%	
	Final score of 20 (restoration opportunity areas)	36,262	<0.1%	
	Final score of 10 (degraded areas of opportunity)	1,416	<0.1%	
↓ Low	Final score of 0 (degraded areas of opportunity)	0	0%	
	Area not evaluated for this indicator	*44,091,550*	*96.5%*	
	Total area	**45,698,163**	**100%**	

To learn more and explore the GIS data, view this indicator in the SECAS Atlas.

Freshwater

Gulf migratory fish connectivity

This indicator captures how far upstream migratory fish in the Gulf of Mexico have been observed. How far upstream migratory fish can travel reflects not just the presence of dams and other barriers, but also the presence of measures like fish ladders that allow specific species to access habitat upstream of dams. This indicator originates from The Nature Conservancy's Southeast Aquatic Connectivity Assessment Project and applies to the Environmental Protection Agency's estimated floodplain, which spatially defines areas estimated to be inundated by a 100-year flood (also known as the 1% annual chance flood).



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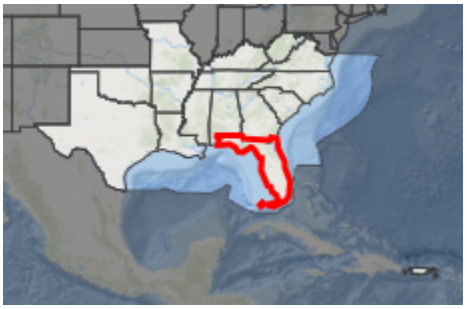


- Presence of Gulf sturgeon
- Presence of Alabama shad, American shad, or striped bass
- Not identified as Gulf migratory fish habitat (east of the Mississippi River)

Table 19: Indicator values for Gulf migratory fish connectivity within Florida. Good condition thresholds reflect the range of indicator values that occur in healthy, functioning ecosystems.

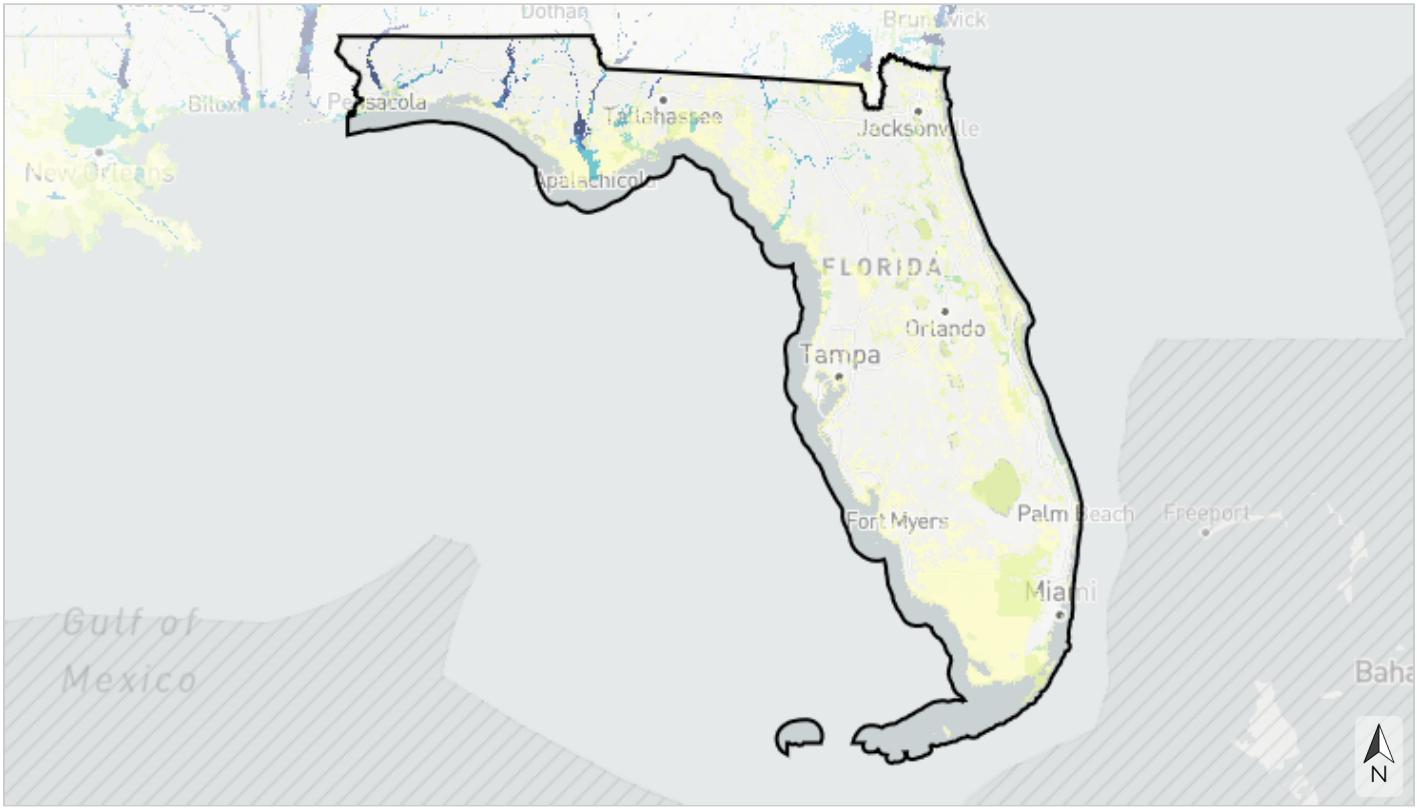
	Indicator Values	Acres	Percent of Area	
↑ High	Presence of Gulf sturgeon	1,353,893	3.0%	
	Presence of Alabama shad, American shad, or striped bass	132,387	0.3%	↑ In good condition
↓ Low	Not identified as Gulf migratory fish habitat (east of the Mississippi River)	12,091,417	26.5%	↓ Not in good condition
	Area not evaluated for this indicator	*32,120,465*	*70.3%*	
	Total area	**45,698,163**	**100%**	

To learn more and explore the GIS data, view this indicator in the SECAS Atlas.

Freshwater

Imperiled aquatic species

This indicator measures the number of aquatic animal Regional Species of Greatest Conservation Need (RSGCN) observed within each 12-digit HUC subwatershed, including fish, mussels, snails, crayfish, and amphibians. RSGCN are regional priority species derived from the list of SGCN identified in Southeast State Wildlife Action Plans as most in need of need of conservation action. RSGCN were chosen based on consistent criteria, such as level of conservation concern, regional stewardship responsibility, and ecological significance. This indicator originates from state Natural Heritage Program data collected by the Southeast Aquatic Resources Partnership and applies to the Environmental Protection Agency's estimated floodplain, which spatially defines areas estimated to be inundated by a 100-year flood (also known as the 1% annual chance flood).



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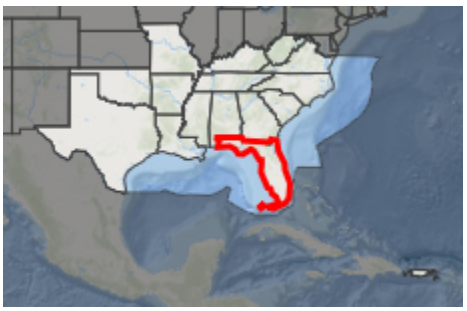


Number of aquatic animal Regional Species of Greatest Conservation Need (RSGCN) observed

- 8+ species
- 7 species
- 6 species
- 5 species
- 4 species
- 3 species
- 2 species
- 1 species
- 0 species
- Not identified as a floodplain

Table 20: Indicator values for imperiled aquatic species within Florida. A good condition threshold is not yet defined for this indicator.

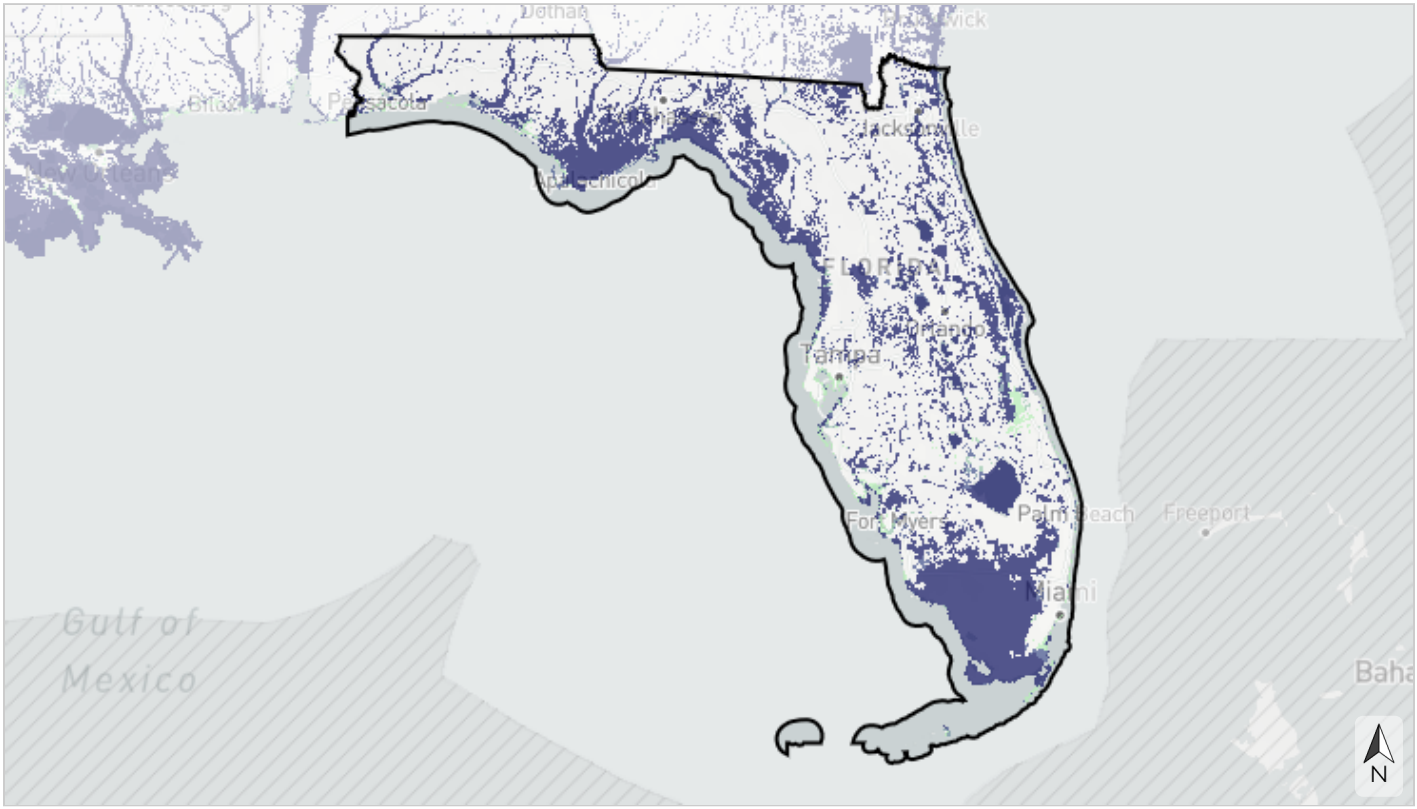
	Indicator Values: Number of aquatic animal Regional Species of Greatest Conservation Need (RSGCN) observed	Acres	Percent of Area
↑ High	8+ species	182,545	0.4%
	7 species	40,604	<0.1%
	6 species	75,344	0.2%
	5 species	101,529	0.2%
	4 species	200,493	0.4%
	3 species	163,280	0.4%
	2 species	470,852	1.0%
	1 species	2,599,432	5.7%
	0 species	9,615,380	21.0%
↓ Low	Not identified as a floodplain	22,859,189	50.0%
	Area not evaluated for this indicator	*9,389,514*	*20.5%*
	Total area	**45,698,163**	**100%**

To learn more and explore the GIS data, view this indicator in the SECAS Atlas.

Freshwater

Natural landcover in floodplains

This indicator measures the amount of natural landcover in the estimated floodplain of rivers and streams within each catchment. It assesses the stream channel and its surrounding riparian buffer, measuring the percent of unaltered habitat like forests, wetlands, or open water (rather than agriculture or development). Intact vegetated buffers within the floodplain of rivers and streams provide aquatic habitat, improve water quality, reduce erosion and flooding, recharge groundwater, and more. This indicator originates from the National Land Cover Database and applies to the Environmental Protection Agency's estimated floodplain, which spatially defines areas estimated to be inundated by a 100-year flood (also known as the 1% annual chance flood).



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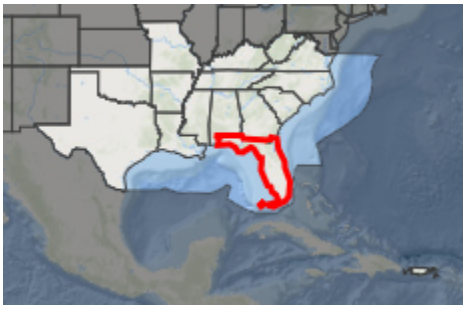


Percent natural landcover within the estimated floodplain, by catchment

- >90% natural landcover
- >80-90% natural landcover
- >70-80% natural landcover
- >60-70% natural landcover
- ≤60% natural landcover
- Not identified as a floodplain

Table 21: Indicator values for natural landcover in floodplains within Florida. Good condition thresholds reflect the range of indicator values that occur in healthy, functioning ecosystems.

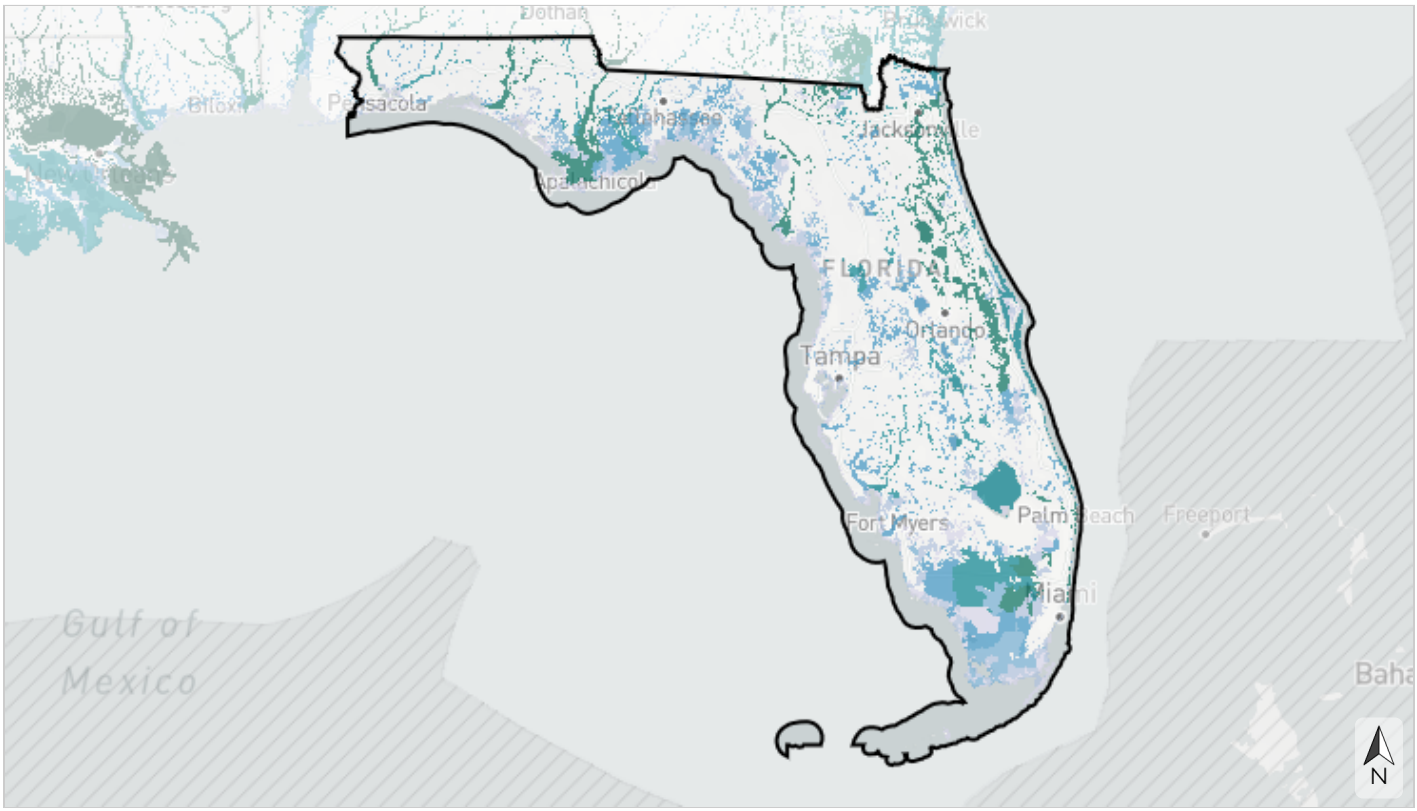
	Indicator Values: Percent natural landcover within the estimated floodplain, by catchment	Acres	Percent of Area	
↑ High	>90% natural landcover	11,929,086	26.1%	
	>80-90% natural landcover	749,641	1.6%	↑ In good condition
	>70-80% natural landcover	219,216	0.5%	↓ Not in good condition
	>60-70% natural landcover	151,758	0.3%	
	≤60% natural landcover	399,757	0.9%	
↓ Low	Not identified as a floodplain	22,869,978	50.0%	
	Area not evaluated for this indicator	*9,378,726*	*20.5%*	
	Total area	**45,698,163**	**100%**	

To learn more and explore the GIS data, view this indicator in the SECAS Atlas.

Freshwater

Network complexity

This indicator depicts the number of connected stream size classes in a river network between dams or waterfalls. River networks with a variety of connected stream classes help retain aquatic biodiversity in a changing climate by allowing species to access climate refugia and move between habitats. This indicator originates from the Southeast Aquatic Resources Partnership and applies to the Environmental Protection Agency's estimated floodplain, which spatially defines areas estimated to be inundated by a 100-year flood (also known as the 1% annual chance flood).



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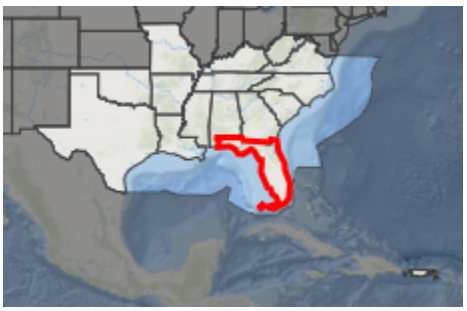


Number of connected stream size classes

- 7 size classes
- 6 size classes
- 5 size classes
- 4 size classes
- 3 size classes
- 2 size classes
- 1 size class
- Not identified as a floodplain

Table 22: Indicator values for network complexity within Florida. Good condition thresholds reflect the range of indicator values that occur in healthy, functioning ecosystems.

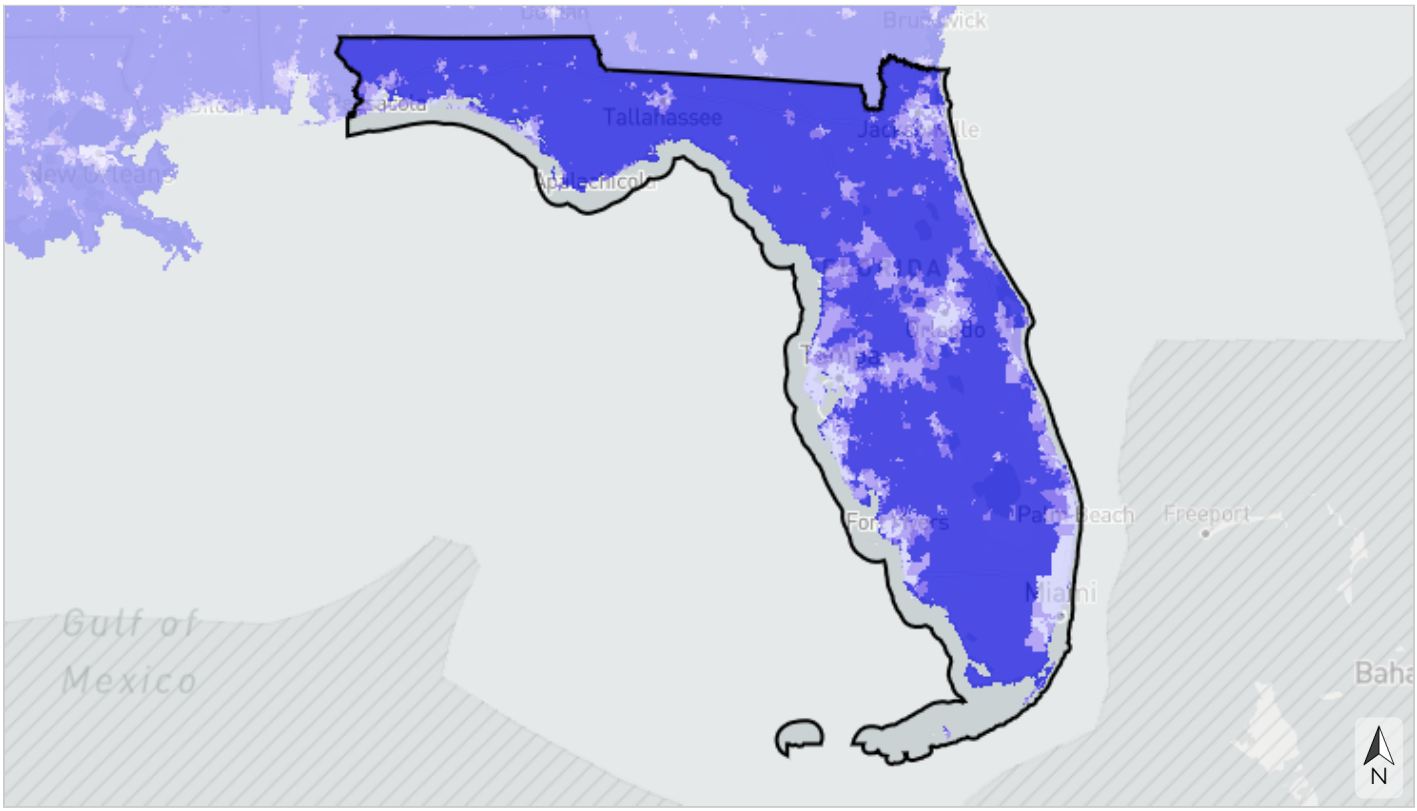
	Indicator Values: Number of connected stream size classes	Acres	Percent of Area	
↑ High	7 size classes	24,730	<0.1%	
	6 size classes	2,511,351	5.5%	
	5 size classes	2,491,872	5.5%	
	4 size classes	2,791,383	6.1%	↑ In good condition
	3 size classes	1,758,480	3.8%	↓ Not in good condition
	2 size classes	2,072,503	4.5%	
	1 size class	1,695,050	3.7%	
↓ Low	Not identified as a floodplain	22,910,197	50.1%	
	Area not evaluated for this indicator	*9,442,598*	*20.7%*	
	Total area	**45,698,163**	**100%**	

To learn more and explore the GIS data, view this indicator in the SECAS Atlas.

Freshwater

Permeable surface

This indicator measures the average percent of non-impervious cover within each catchment. High levels of impervious surface degrade water quality and alter freshwater flow, impacting both aquatic species communities and ecosystem services for people, like the availability of clean drinking water. This indicator originates from the National Land Cover Database.



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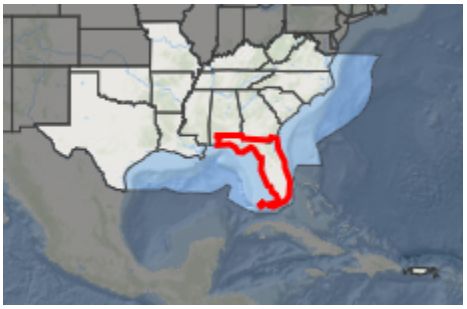


Percent of catchment permeable

- >95% permeable (likely high water quality and supporting most sensitive aquatic species)
- >90-95% permeable (likely declining water quality and supporting most aquatic species)
- >70-90% permeable (likely degraded water quality and not supporting many aquatic species)
- ≤70% permeable (likely degraded instream flow, water quality, and aquatic species communities)

Table 23: Indicator values for permeable surface within Florida. Good condition thresholds reflect the range of indicator values that occur in healthy, functioning ecosystems.

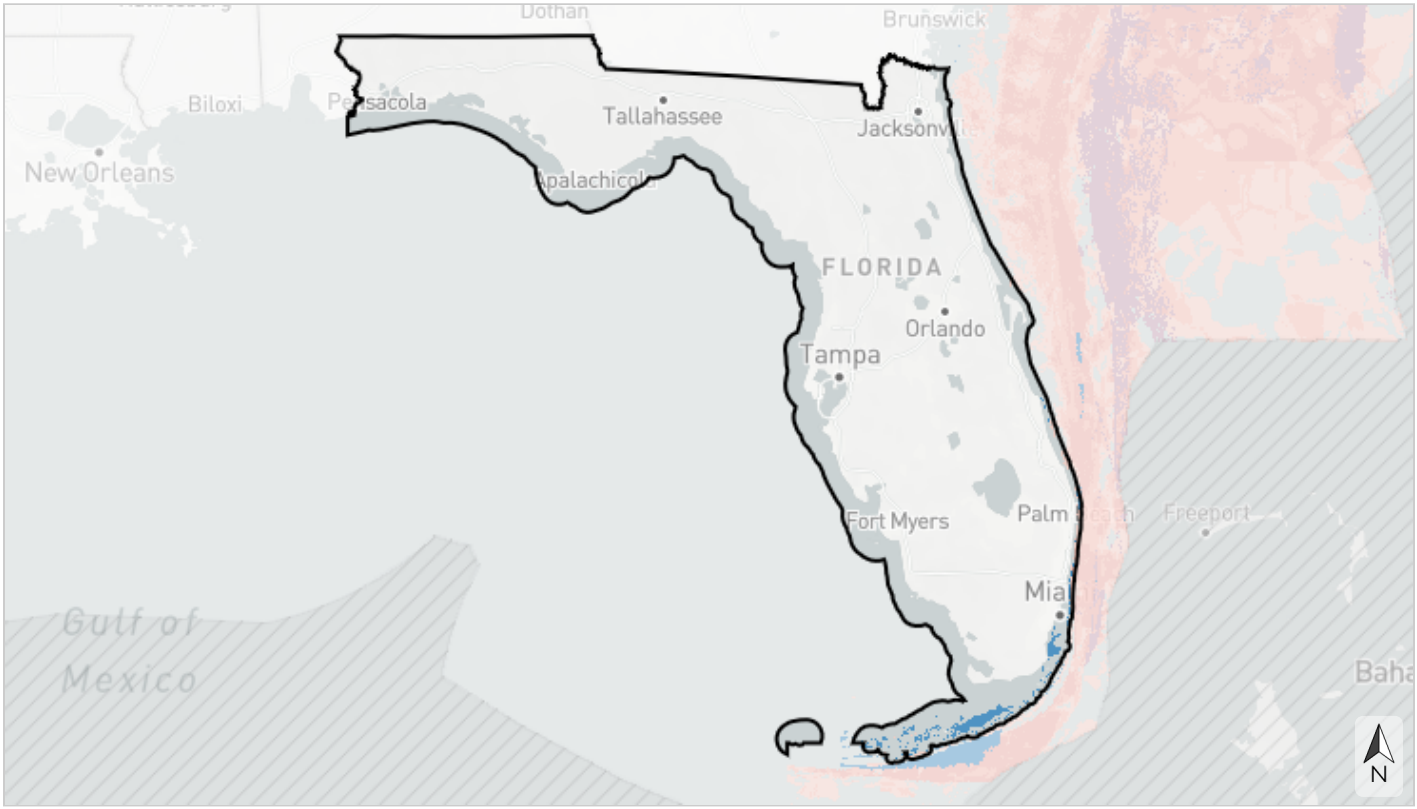
	Indicator Values: Percent of catchment permeable	Acres	Percent of Area	
↑ High	>95% permeable (likely high water quality and supporting most sensitive aquatic species)	28,344,037	62.0%	↑ In good condition
	>90-95% permeable (likely declining water quality and supporting most aquatic species)	2,417,395	5.3%	↓ Not in good condition
	>70-90% permeable (likely degraded water quality and not supporting many aquatic species)	3,791,266	8.3%	
↓ Low	≤70% permeable (likely degraded instream flow, water quality, and aquatic species communities)	1,755,950	3.8%	
	Area not evaluated for this indicator	*9,389,514*	*20.5%*	
	Total area	**45,698,163**	**100%**	

To learn more and explore the GIS data, view this indicator in the SECAS Atlas.

Coastal & marine

Atlantic coral & hardbottom

This indicator predicts the presence of coral and hardbottom in the Atlantic Ocean based on direct observations, distribution models, and known locations of artificial reefs and shipwrecks. The models use hardbottom observations and a suite of environmental predictors including measures of depth, seafloor topography and substrate, oceanography, and geography. Hardbottom provides an anchor for important seafloor habitats such as deep-sea corals, plants, and sponges, providing valuable structure that supports a wide range of invertebrate and fish species. This indicator combines data from multiple sources, including The Nature Conservancy's South Atlantic Bight Marine Assessment, several National Oceanic and Atmospheric Administration datasets, Florida state data, and more.



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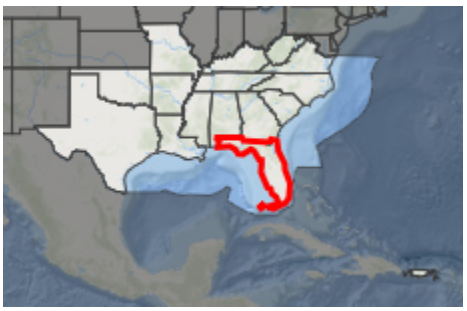


- Confirmed hardbottom-associated species (corals, sponges)
- Confirmed natural hardbottom
- Artificial reefs
- Shipwrecks
- Predicted cold-water coral mounds (Blake Plateau)
- Highest probability of hardbottom (>80th percentile)
- High probability of hardbottom (>60th-80th percentile)
- Medium probability of hardbottom (>40th-60th percentile)
- Not identified as hardbottom

Table 24: Indicator values for Atlantic coral & hardbottom within Florida. A good condition threshold is not yet defined for this indicator.

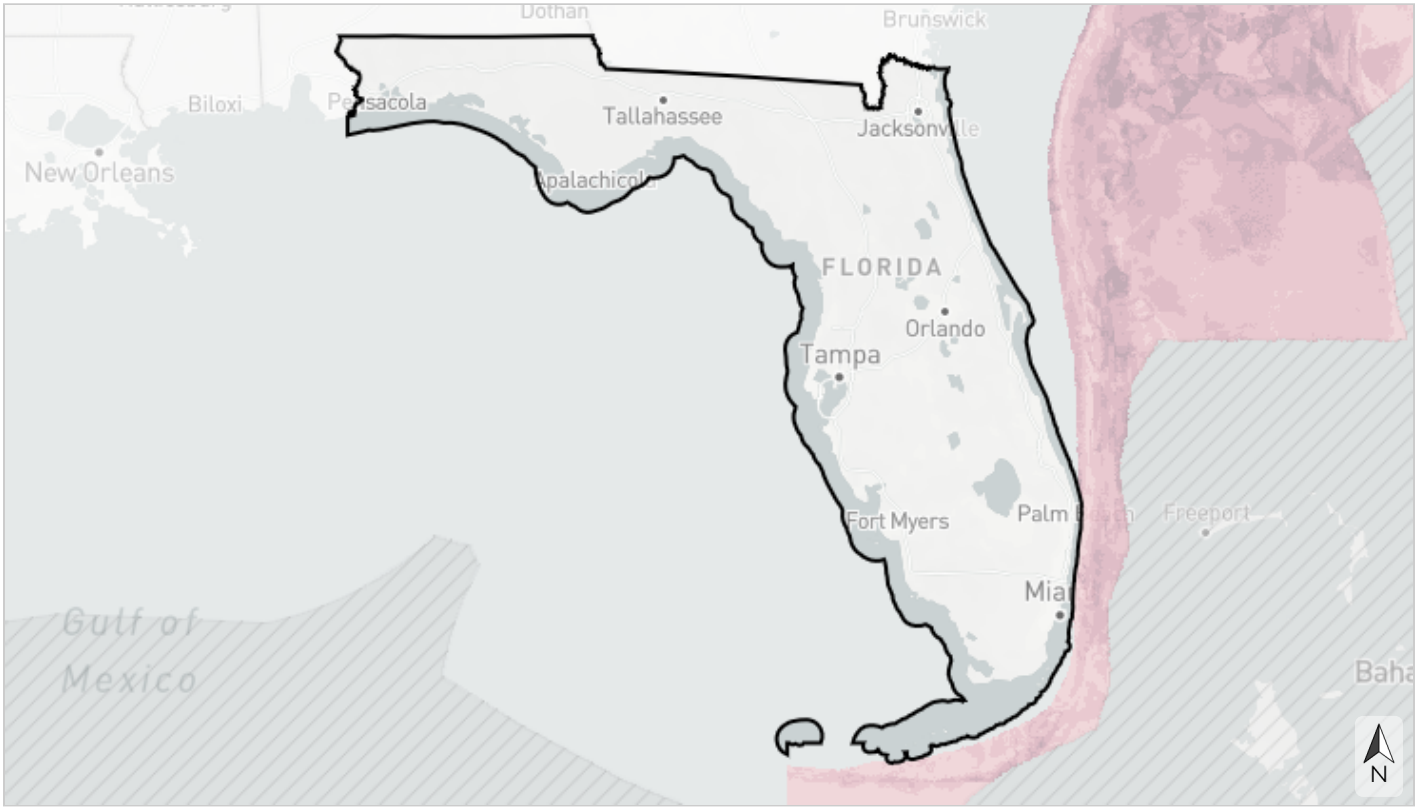
	Indicator Values	Acres	Percent of Area
↑ High	Confirmed hardbottom-associated species (corals, sponges)	32,301	<0.1%
	Confirmed natural hardbottom	407,696	0.9%
	Artificial reefs	4,566	<0.1%
	Shipwrecks	2,872	<0.1%
	Predicted cold-water coral mounds (Blake Plateau)	0	0%
	Highest probability of hardbottom (>80th percentile)	2,396	<0.1%
	High probability of hardbottom (>60th-80th percentile)	24,348	<0.1%
	Medium probability of hardbottom (>40th-60th percentile)	126,181	0.3%
↓ Low	Not identified as hardbottom	3,372,094	7.4%
	Area not evaluated for this indicator	*41,725,709*	*91.3%*
	Total area	**45,698,163**	**100%**

To learn more and explore the GIS data, view this indicator in the SECAS Atlas.

Coastal & marine

Atlantic deep-sea coral richness

This indicator measures the number of deep-sea coral genera predicted to occur in the Atlantic Ocean at depths of approximately 50 m or below. It is based on coral observations and a suite of environmental predictors including measures of depth, seafloor topography and substrate, oceanography, and geography. This indicator combines probability models for 24 deep-sea coral genera to predict overall richness. Deep-sea corals provide valuable habitat structure that supports a wide range of invertebrate and fish species, and higher coral diversity typically creates more complex habitats occupied by more species. This indicator originates from a National Oceanic and Atmospheric Administration project characterizing the spatial distributions of deep-sea corals and hardbottom habitats in the U.S. Southeast Atlantic.



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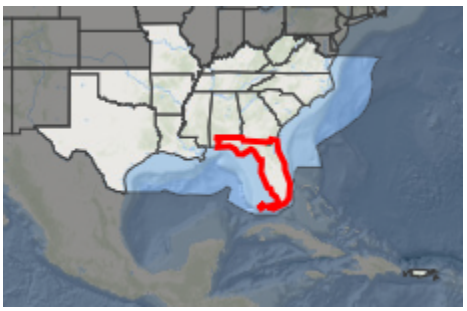


Level of predicted average genus richness

- Highest genus richness (>4)
- High genus richness (>3-4)
- Medium genus richness (>2-3)
- Low genus richness (>1-2)
- Lowest genus richness (0-1)

Table 25: Indicator values for Atlantic deep-sea coral richness within Florida. A good condition threshold is not yet defined for this indicator.

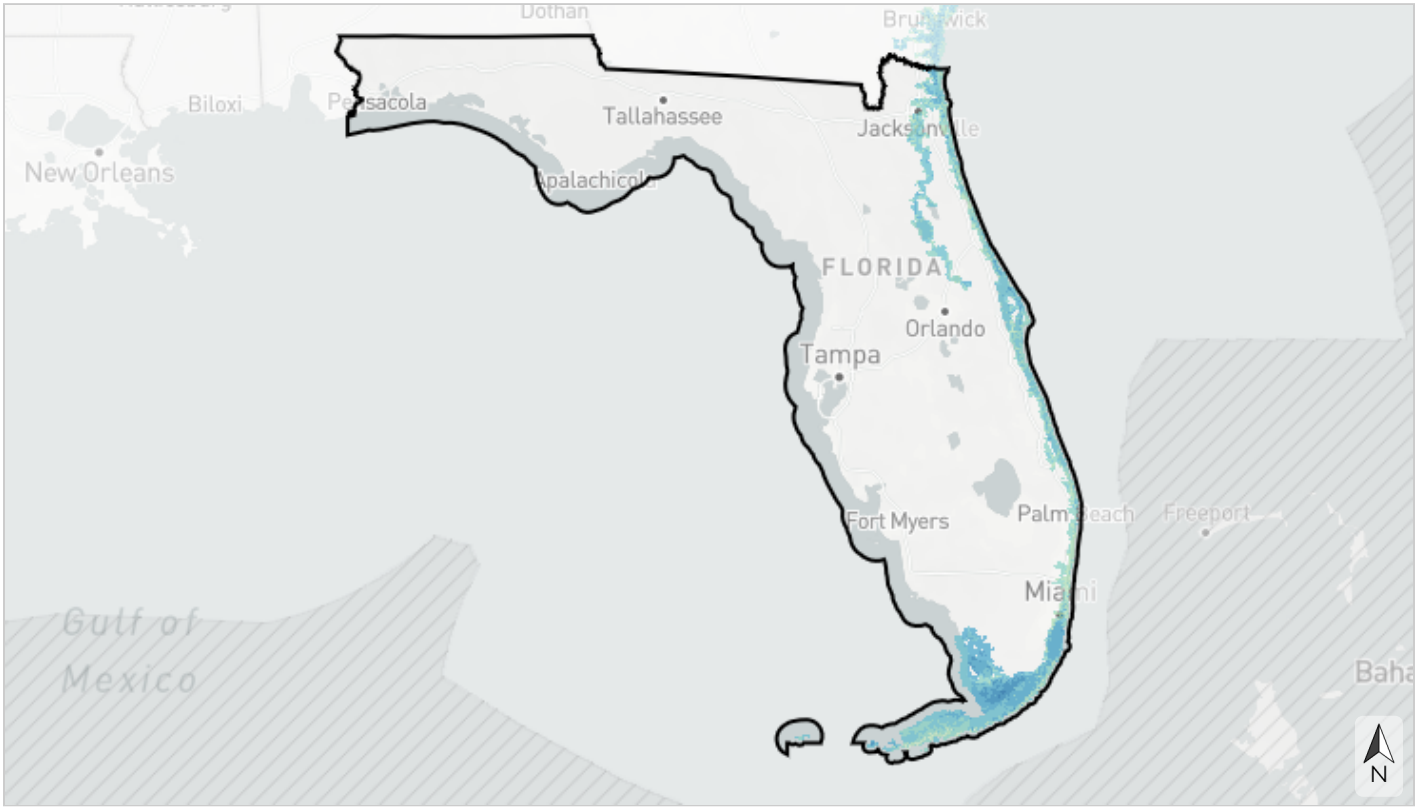
	Indicator Values: Level of predicted average genus richness	Acres	Percent of Area
↑ High	Highest genus richness (>4)	0	0%
	High genus richness (>3-4)	0	0%
	Medium genus richness (>2-3)	0	0%
	Low genus richness (>1-2)	0	0%
↓ Low	Lowest genus richness (0-1)	598	<0.1%
	Area not evaluated for this indicator	*45,697,565*	*100.0%*
	Total area	**45,698,163**	**100%**

To learn more and explore the GIS data, view this indicator in the SECAS Atlas.

Coastal & marine

Atlantic estuarine fish habitat

This indicator measures the condition of estuarine fish habitat along the Atlantic coast using metrics of water quality, marsh edges, seagrass and oyster reefs, fragmentation, human development, and more. Areas of excellent fish habitat are already in good condition and face few threats. Restoration opportunity areas are doing well in some respects, but restoration projects could significantly improve them. Degraded areas of opportunity face many challenges, and restoration projects are unlikely to increase available fish habitat unless particularly large in scope and scale. This indicator originates from the Atlantic Coast Fish Habitat Partnership's fish habitat conservation area mapping and prioritization project.



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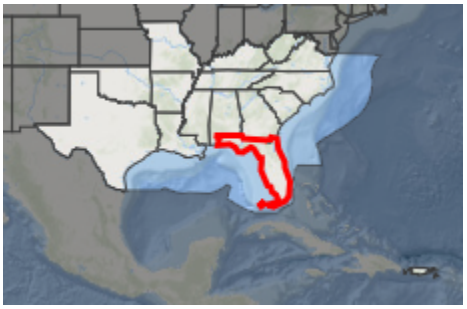


- Final score of 80 (areas of excellent fish habitat)
- Final score of 70 (areas of excellent fish habitat)
- Final score of 60 (restoration opportunity areas)
- Final score of 50 (restoration opportunity areas)
- Final score of 40 (restoration opportunity areas)
- Final score of 30 (restoration opportunity areas)
- Final score of 20 (restoration opportunity areas)
- Final score of 10 (degraded areas of opportunity)
- Final score of 0 (degraded areas of opportunity)

Table 26: Indicator values for Atlantic estuarine fish habitat within Florida. Good condition thresholds reflect the range of indicator values that occur in healthy, functioning ecosystems.

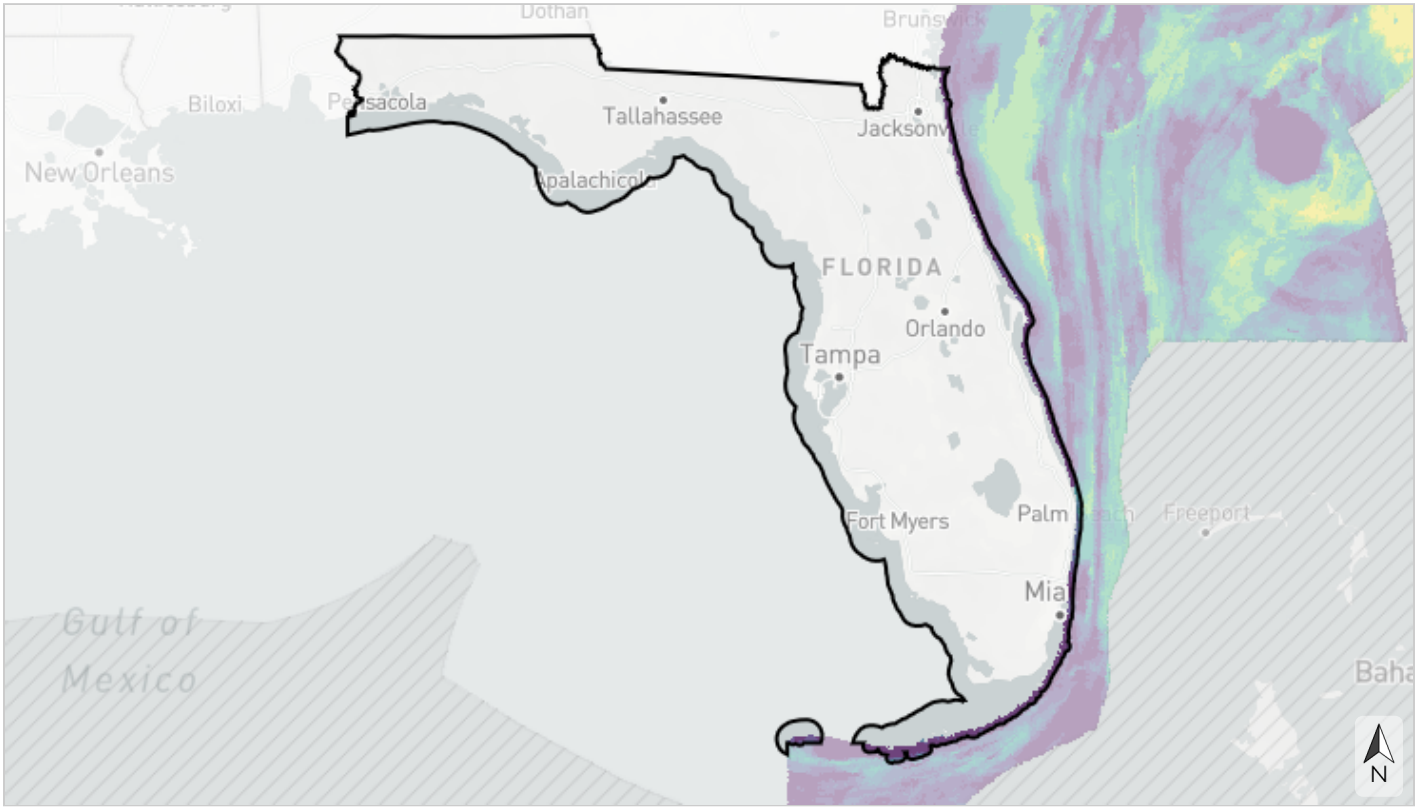
	Indicator Values	Acres	Percent of Area	
↑ High	Final score of 80 (areas of excellent fish habitat)	0	0%	
	Final score of 70 (areas of excellent fish habitat)	6,175	<0.1%	↑ In good condition
	Final score of 60 (restoration opportunity areas)	137,625	0.3%	↓ Not in good condition
	Final score of 50 (restoration opportunity areas)	666,723	1.5%	
	Final score of 40 (restoration opportunity areas)	1,085,645	2.4%	
	Final score of 30 (restoration opportunity areas)	645,095	1.4%	
	Final score of 20 (restoration opportunity areas)	212,164	0.5%	
	Final score of 10 (degraded areas of opportunity)	41,987	<0.1%	
↓ Low	Final score of 0 (degraded areas of opportunity)	3,461	<0.1%	
	Area not evaluated for this indicator	*42,899,288*	*93.9%*	
	Total area	**45,698,163**	**100%**	

To learn more and explore the GIS data, view this indicator in the SECAS Atlas.

Coastal & marine

Atlantic marine birds

This indicator identifies important areas in the Atlantic Ocean for birds that feed exclusively or mainly at sea. It uses seasonal predictions of relative abundance for 19 species of marine birds (Audubon's shearwater, band-rumped storm petrel, black-capped petrel, black scoter, Bonaparte's gull, bridled tern, brown pelican, common loon, common tern, Cory's shearwater, great shearwater, Manx shearwater, Northern gannet, parasitic jaeger, red-throated loon, royal tern, sooty shearwater, sooty tern, white-winged scoter) based on sightings from boat-based surveys and marine environmental data like fronts, primary productivity, and ocean currents. This indicator originates from Duke University's Marine-life Data and Analysis Team marine bird models.



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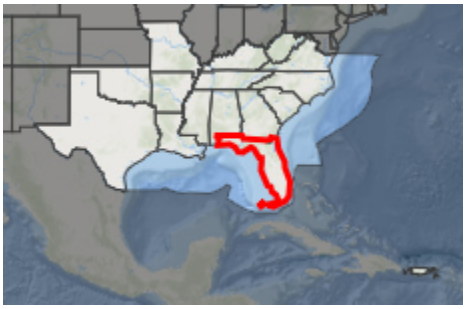


Percentile of importance for marine bird index species (across the full East Coast study area)

- >90th percentile
- >80th-90th percentile
- >70th-80th percentile
- >60th-70th percentile
- >50th-60th percentile
- >40th-50th percentile
- >30th-40th percentile
- >20th-30th percentile
- >10th-20th percentile
- ≤10th percentile
- Land

Table 27: Indicator values for Atlantic marine birds within Florida. A good condition threshold is not yet defined for this indicator.

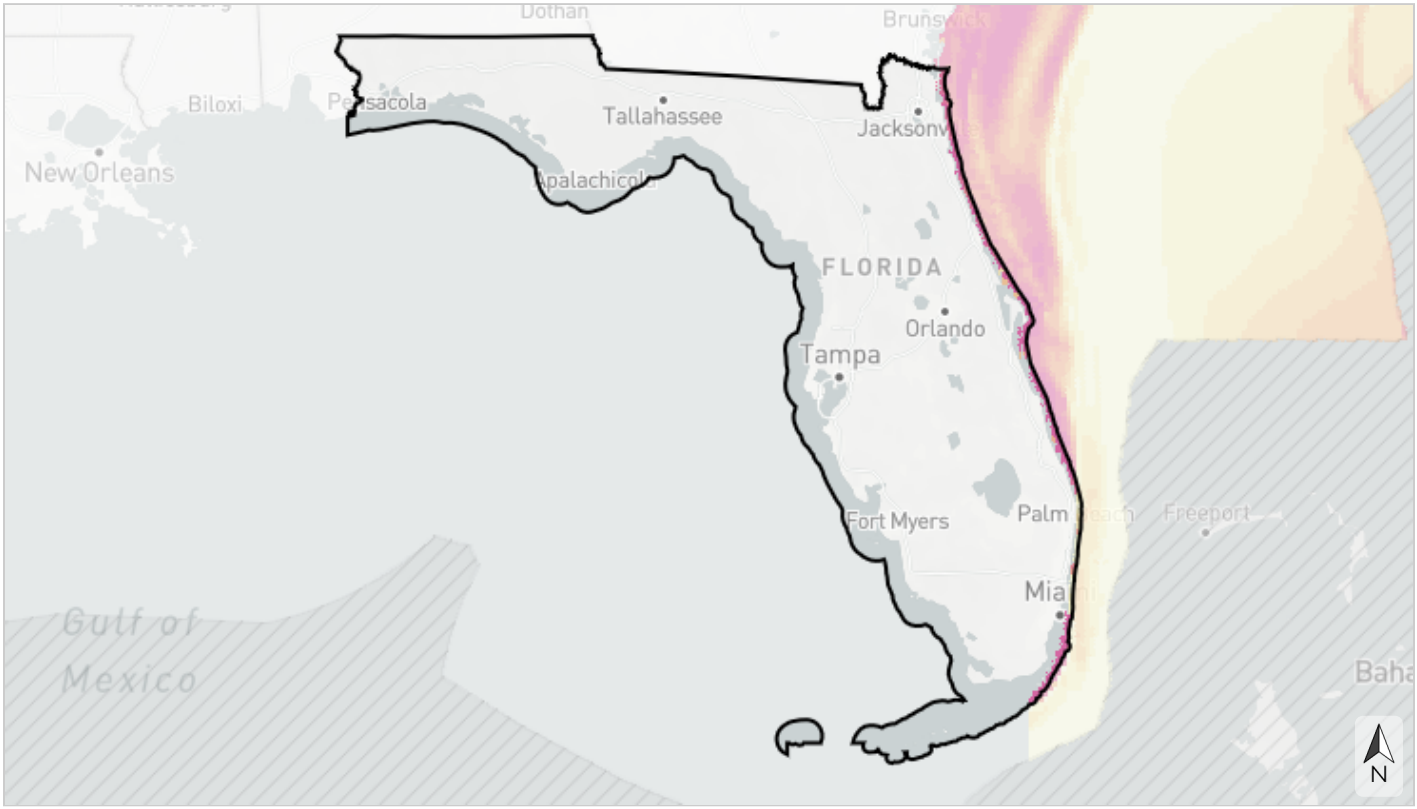
	Indicator Values: Percentile of importance for marine bird index species (across the full East Coast study area)	Acres	Percent of Area
↑ High	>90th percentile	902,103	2.0%
	>80th-90th percentile	209,827	0.5%
	>70th-80th percentile	52,682	0.1%
	>60th-70th percentile	32,096	<0.1%
	>50th-60th percentile	35,461	<0.1%
	>40th-50th percentile	14,001	<0.1%
	>30th-40th percentile	989	<0.1%
	>20th-30th percentile	0	0%
	>10th-20th percentile	0	0%
	≤10th percentile	0	0%
↓ Low	Land	12,825	<0.1%
	Area not evaluated for this indicator	*44,438,178*	*97.2%*
	Total area	**45,698,163**	**100%**

To learn more and explore the GIS data, view this indicator in the SECAS Atlas.

Coastal & marine

Atlantic marine mammals

This indicator identifies important areas in the Atlantic Ocean for dolphins, whales, and seals. It incorporates density predictions for 20 marine mammals species or species groups (Atlantic spotted dolphin, Atlantic white-sided dolphin, Clymene dolphin, common bottlenose dolphin, Cuvier's beaked whale, dwarf and pygmy sperm whales, fin whale, harbor porpoise, humpback whale, mesoplodont beaked whales, North Atlantic right whale, pantropical spotted dolphin, pilot whales, Risso's dolphin, rough-toothed dolphin, seals, short-beaked common dolphin, sperm whale, striped dolphin, unidentified beaked whales) based on sightings from boat-based and aerial surveys and data on oceanographic conditions. It uses marine mammal models developed by the Duke Marine Lab.



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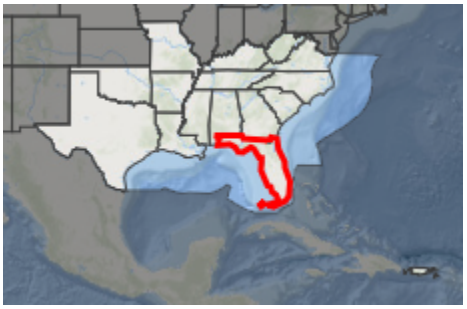


Percentile of importance for marine mammal index species (across the full East Coast study area)

- >90th percentile
- >80th-90th percentile
- >70th-80th percentile
- >60th-70th percentile
- >50th-60th percentile
- >40th-50th percentile
- >30th-40th percentile
- >20th-30th percentile
- >10th-20th percentile
- ≤10th percentile
- Land

Table 28: Indicator values for Atlantic marine mammals within Florida. A good condition threshold is not yet defined for this indicator.

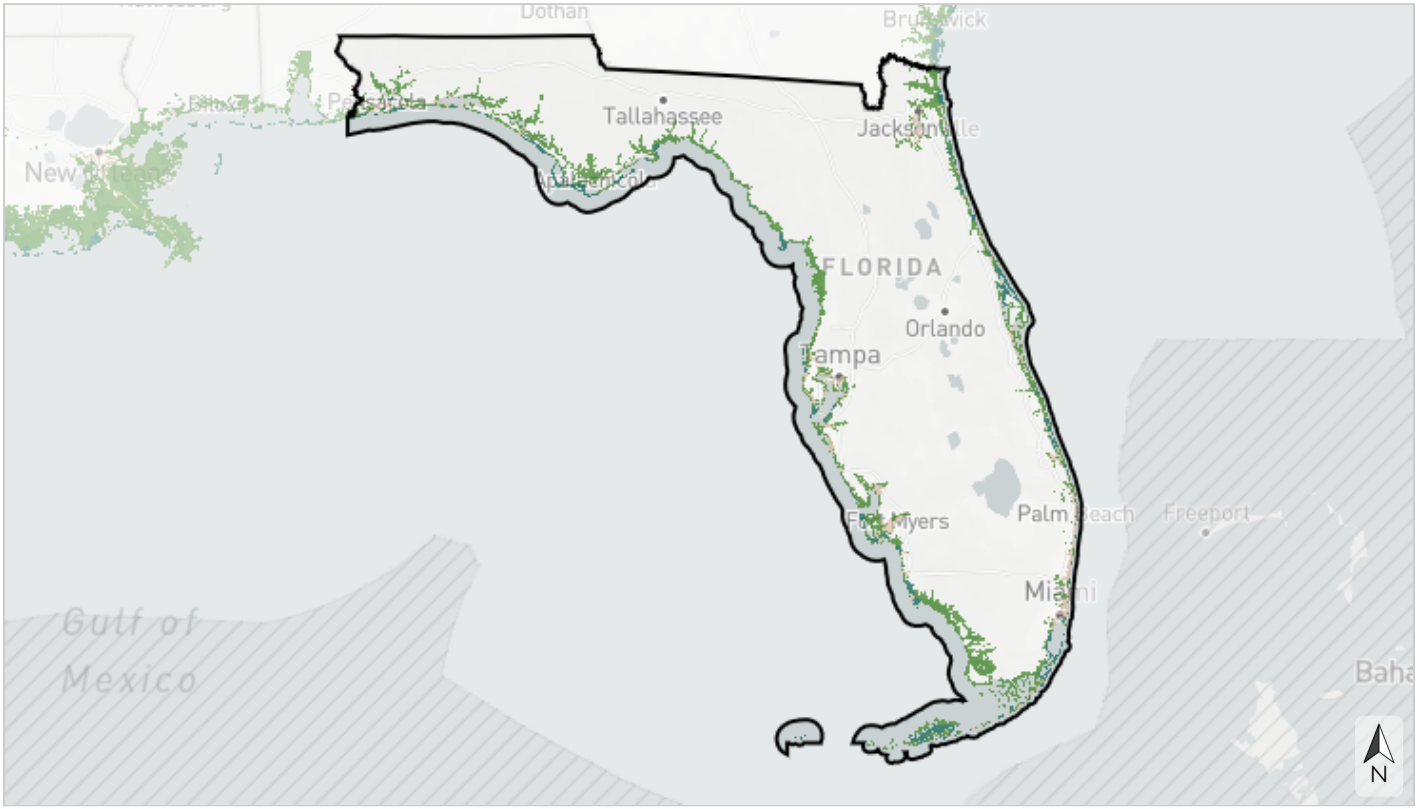
	Indicator Values: Percentile of importance for marine mammal index species (across the full East Coast study area)	Acres	Percent of Area
↑ High	>90th percentile	510,074	1.1%
	>80th-90th percentile	234,188	0.5%
	>70th-80th percentile	61,705	0.1%
	>60th-70th percentile	13,109	<0.1%
	>50th-60th percentile	5,238	<0.1%
	>40th-50th percentile	14,013	<0.1%
	>30th-40th percentile	6,206	<0.1%
	>20th-30th percentile	50,775	0.1%
	>10th-20th percentile	57,683	0.1%
	≤10th percentile	47,392	0.1%
↓ Low	Land	149,780	0.3%
	Area not evaluated for this indicator	*44,547,999*	*97.5%*
	Total area	**45,698,163**	**100%**

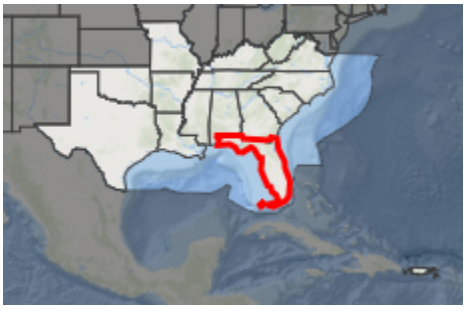
To learn more and explore the GIS data, view this indicator in the SECAS Atlas.

Coastal & marine

Coastal shoreline condition

This indicator assesses shoreline condition based on the presence of hardened structures like jetties, groins, and riprap, as well as other human development. By restricting the natural movement of sediment, shoreline armoring increases erosion, prevents the inland migration of coastal ecosystems in response to sea-level rise, and degrades habitat for birds, sea turtles, fish, plants, and other species both on and offshore. Natural shorelines in harder-to-develop coastal areas receive the highest shoreline condition scores, while hardened shorelines receive the lowest scores. This indicator originates from the National Oceanic and Atmospheric Administration's Environmental Sensitivity Index dataset.





- Natural and harder to develop
- Natural
- Partially armored and harder to develop
- Partially armored
- Armored

Table 29: Indicator values for coastal shoreline condition within Florida. Good condition thresholds reflect the range of indicator values that occur in healthy, functioning ecosystems.

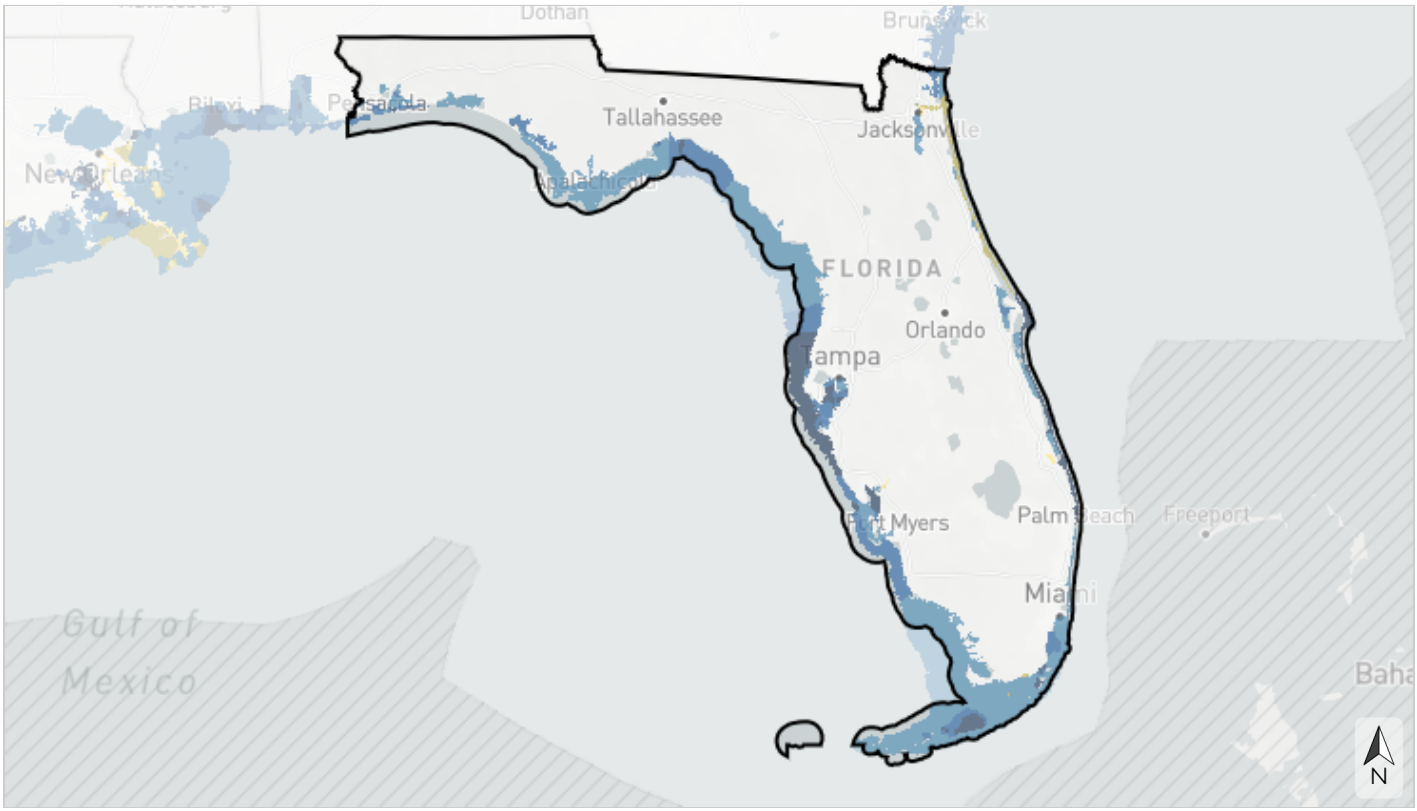
	Indicator Values	Acres	Percent of Area	
↑ High	Natural and harder to develop	45,534	<0.1%	
	Natural	231,129	0.5%	↑ In good condition
	Partially armored and harder to develop	306	<0.1%	↓ Not in good condition
	Partially armored	5,768	<0.1%	
↓ Low	Armored	55,014	0.1%	
	Area not evaluated for this indicator	*45,360,411*	*99.3%*	
	Total area	**45,698,163**	**100%**	

To learn more and explore the GIS data, view this indicator in the SECAS Atlas.

Coastal & marine

Estuarine coastal condition

This indicator combines measures of water quality, sediment quality, contaminants in fish tissue, and benthic community condition to create an overall index of coastal estuarine condition. Estuaries serve as important nursery habitat for wildlife, including many species of fish and shellfish eaten as seafood. They also improve water quality by filtering out sediments and pollutants, provide recreational opportunities, and support coastal economies. This indicator originates from the Environmental Protection Agency's National Coastal Condition Assessment data.



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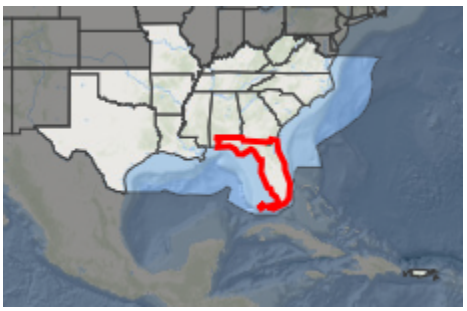


- Good
- Fair to good
- Fair
- Poor to fair
- Poor
- Shallow estuary not assessed for condition

Table 30: Indicator values for estuarine coastal condition within Florida. Good condition thresholds reflect the range of indicator values that occur in healthy, functioning ecosystems.

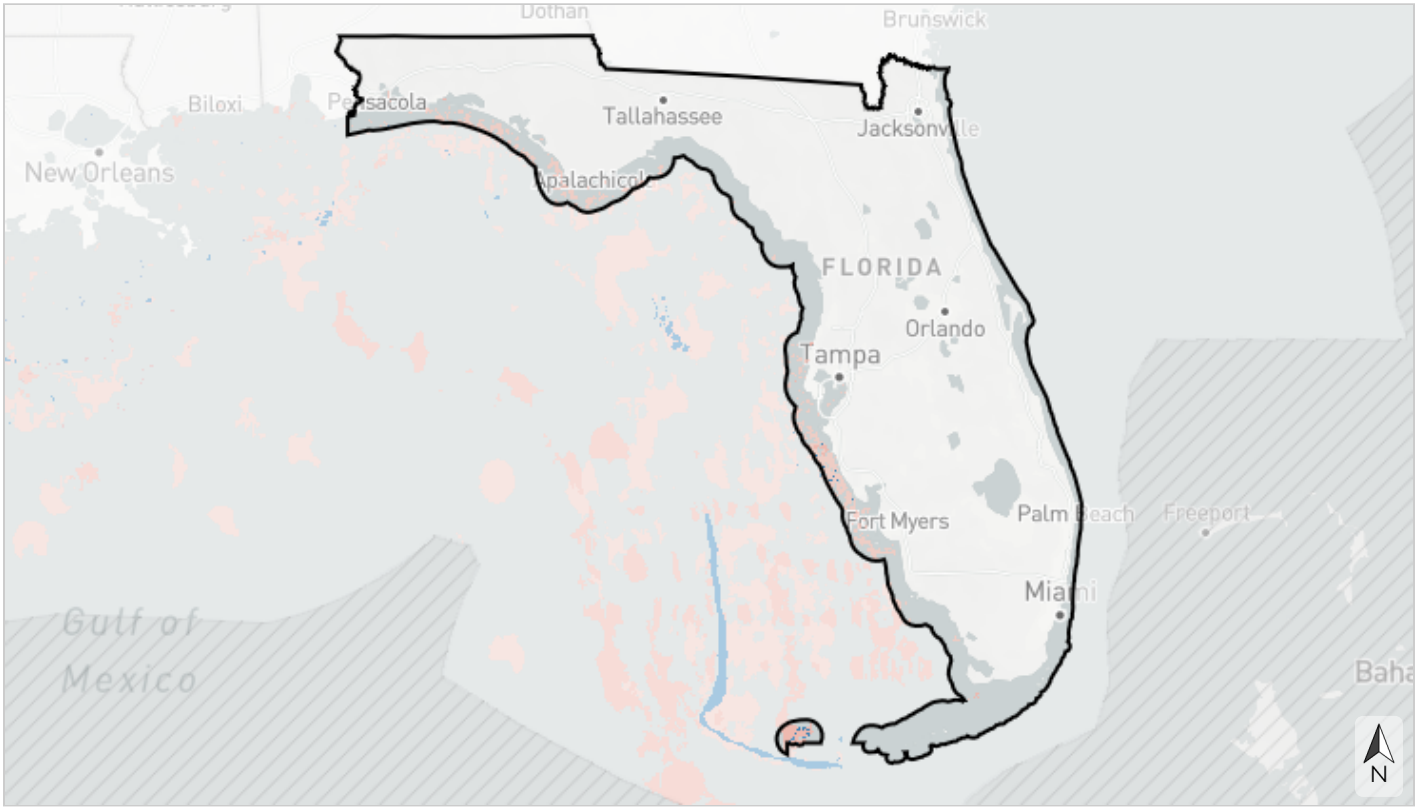
	Indicator Values	Acres	Percent of Area	
↑ High	Good	818,226	1.8%	
	Fair to good	1,211,496	2.7%	↑ In good condition
	Fair	3,851,904	8.4%	↓ Not in good condition
	Poor to fair	69,338	0.2%	
	Poor	7,377	<0.1%	
↓ Low	Shallow estuary not assessed for condition	898,101	2.0%	
	Area not evaluated for this indicator	*38,841,720*	*85.0%*	
	Total area	**45,698,163**	**100%**	

To learn more and explore the GIS data, view this indicator in the SECAS Atlas.

Coastal & marine

Gulf coral & hardbottom

This indicator predicts the presence of coral and hardbottom in the Gulf of Mexico based on direct observations, acoustic surveys, and known locations of artificial reefs and shipwrecks. Hardbottom provides an anchor for important seafloor habitats such as deep-sea corals, plants, and sponges, providing valuable structure that supports a wide range of invertebrate and fish species. Hardbottom is also sometimes associated with diverse chemosynthetic communities supported by micro-organisms that feed off of hydrocarbon seeps. This indicator combines data from multiple sources, including Bureau of Ocean Energy Management seismic water bottom anomalies, usSEABED sediment data, several National Oceanic and Atmospheric Administration datasets, various state layers, and more.



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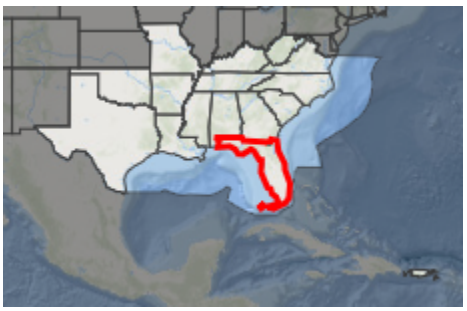


- Confirmed hardbottom-associated species (e.g., corals, sponges, patch reef, chemosynthetic communities)
- Confirmed natural hardbottom
- Artificial reefs
- Shipwrecks
- Probable natural hardbottom (fine resolution)
- Rock (coarse resolution)
- Gravel (coarse resolution)
- Not identified as hardbottom

Table 31: Indicator values for Gulf coral & hardbottom within Florida. A good condition threshold is not yet defined for this indicator.

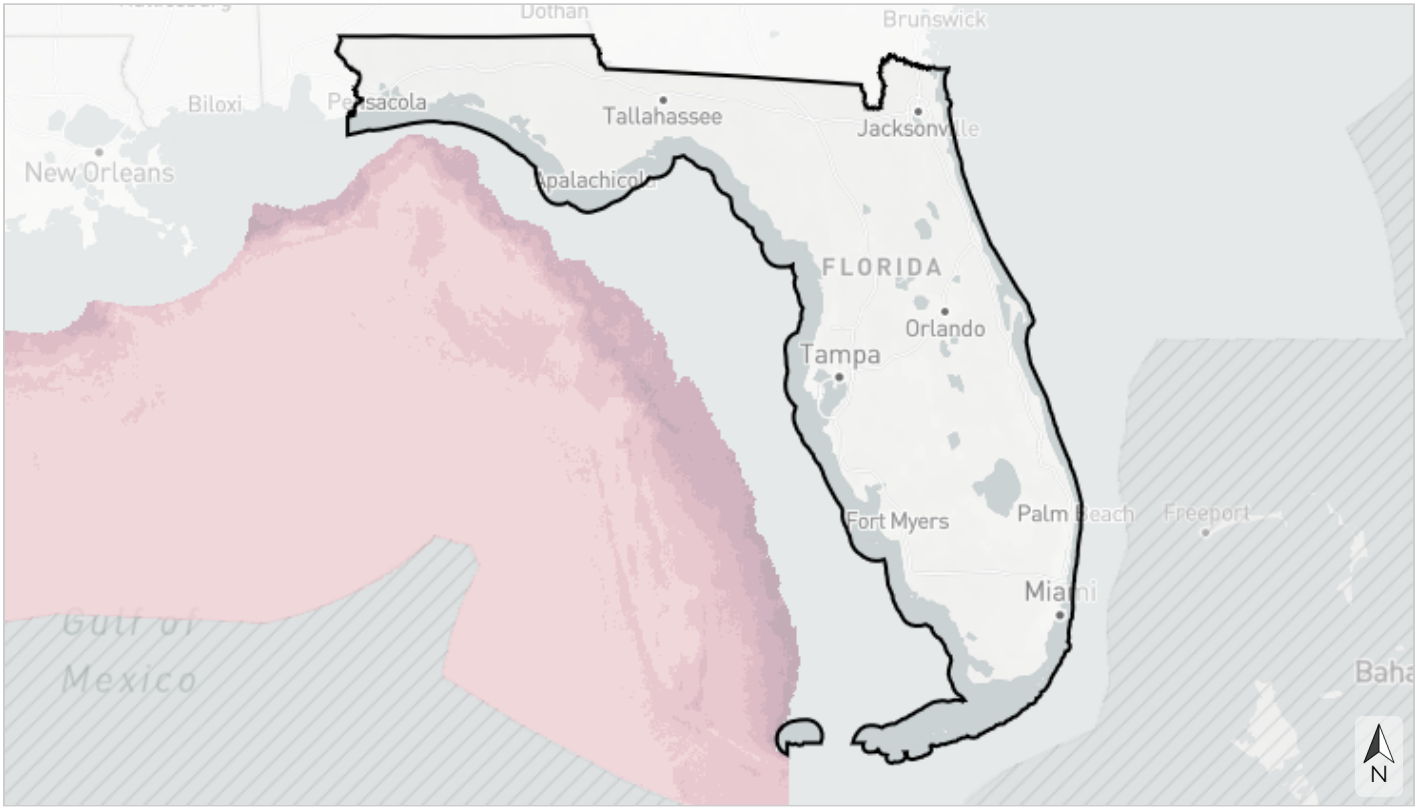
	Indicator Values	Acres	Percent of Area
↑ High	Confirmed hardbottom-associated species (e.g., corals, sponges, patch reef, chemosynthetic communities)	29,782	<0.1%
	Confirmed natural hardbottom	7,005	<0.1%
	Artificial reefs	15,561	<0.1%
	Shipwrecks	4,449	<0.1%
	Probable natural hardbottom (fine resolution)	0	0%
	Rock (coarse resolution)	131,919	0.3%
	Gravel (coarse resolution)	788,373	1.7%
↓ Low	Not identified as hardbottom	7,214,509	15.8%
	Area not evaluated for this indicator	*37,506,566*	*82.1%*
	Total area	**45,698,163**	**100%**

To learn more and explore the GIS data, view this indicator in the SECAS Atlas.

Coastal & marine

Gulf deep-sea coral richness

This indicator measures the number of different deep-sea coral genera predicted to occur in the Gulf of Mexico at depths of 50 m or below. It is based on coral observations and a suite of environmental predictors including measures of depth, seafloor topography and substrate, oceanography, and geography. This indicator combines probability models for 28 deep-sea coral genera to predict overall richness. Deep-sea corals provide valuable habitat structure that supports a wide range of invertebrate and fish species, and higher coral diversity typically creates more complex habitats occupied by more species. This indicator originates from a National Oceanic and Atmospheric Administration project characterizing the spatial distributions of deep-sea corals and chemosynthetic communities in the U.S. Gulf of Mexico.



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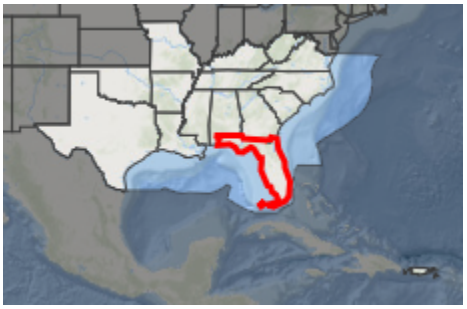


Level of predicted average genus richness

- Highest genus richness (>7)
- High genus richness (>5-7)
- Medium genus richness (>3-5)
- Low genus richness (>1-3)
- Lowest genus richness (0-1)

Table 32: Indicator values for Gulf deep-sea coral richness within Florida. A good condition threshold is not yet defined for this indicator.

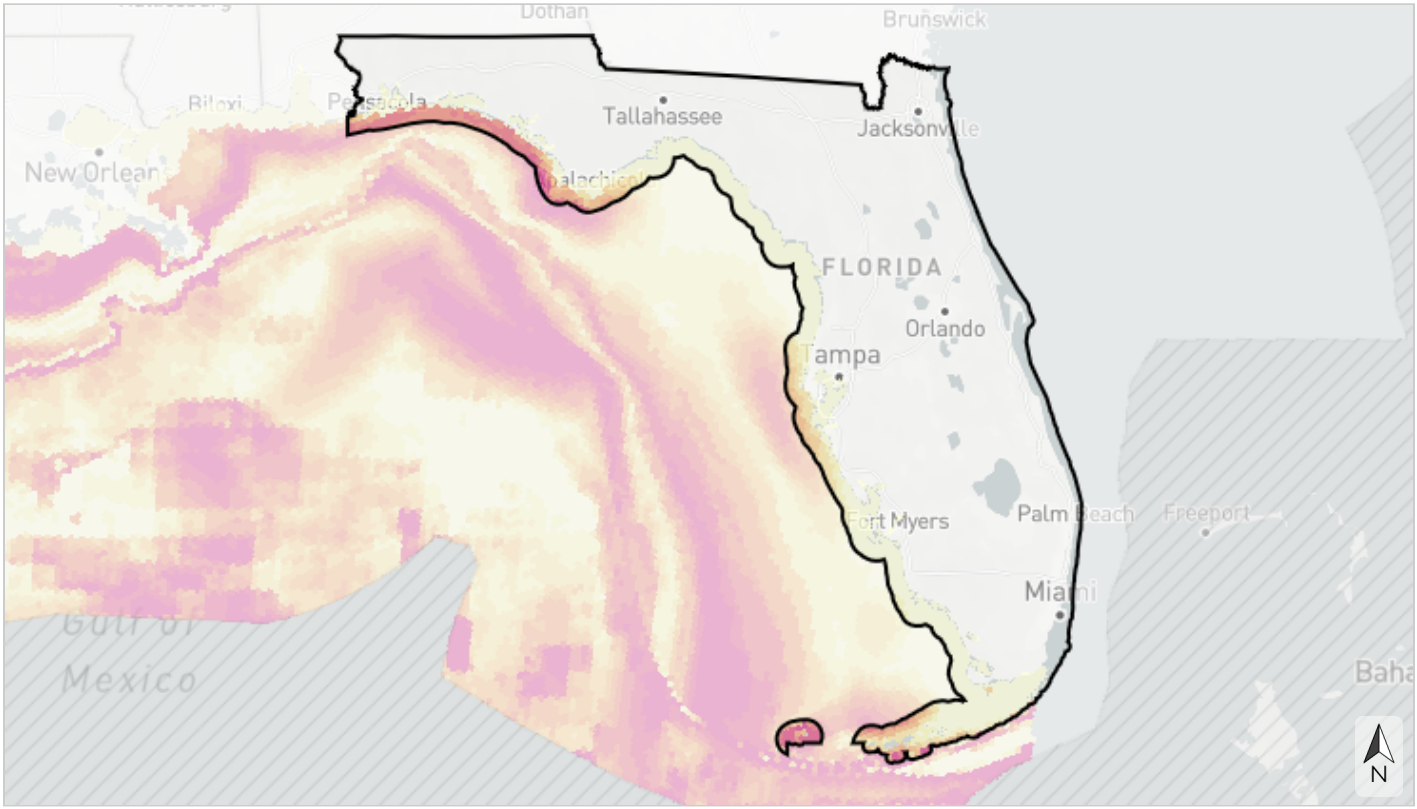
	Indicator Values: Level of predicted average genus richness	Acres	Percent of Area
↑ High	Highest genus richness (>7)	3,151	<0.1%
	High genus richness (>5-7)	0	0%
	Medium genus richness (>3-5)	0	0%
	Low genus richness (>1-3)	0	0%
↓ Low	Lowest genus richness (0-1)	0	0%
	Area not evaluated for this indicator	*45,695,012*	*100.0%*
	Total area	**45,698,163**	**100%**

To learn more and explore the GIS data, view this indicator in the SECAS Atlas.

Coastal & marine

Gulf marine mammals

This indicator identifies important areas in the Gulf of Mexico for dolphins and whales. It incorporates monthly density predictions for 13 marine mammal species or species groups (Atlantic spotted dolphin, beaked whales, blackfish [which includes killer whale, melon-headed whale, false killer whale, pygmy killer whale], bottlenose dolphin, Bryde's whale, clymene dolphin, pantropical spotted dolphin, pilot whales, pygmy/dwarf sperm whales, Rice's whale, Risso's dolphin, sperm whale, spinner dolphin) based on sightings from boat-based and aerial surveys and data on oceanographic conditions. It uses marine mammal models developed by the National Oceanic and Atmospheric Administration as part of the Gulf of Mexico Marine Assessment Program for Protected Species (GoMMAPPS).



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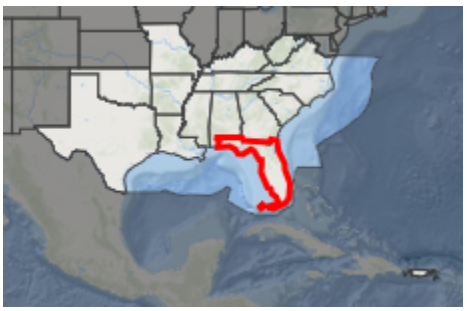


Percentile of importance for marine mammal index species (across larger analysis area)

- >90th percentile
- >80th-90th percentile
- >70th-80th percentile
- >60th-70th percentile
- >50th-60th percentile
- >40th-50th percentile
- >30th-40th percentile
- >20th-30th percentile
- >10th-20th percentile
- ≤10th percentile
- Land

Table 33: Indicator values for Gulf marine mammals within Florida. A good condition threshold is not yet defined for this indicator.

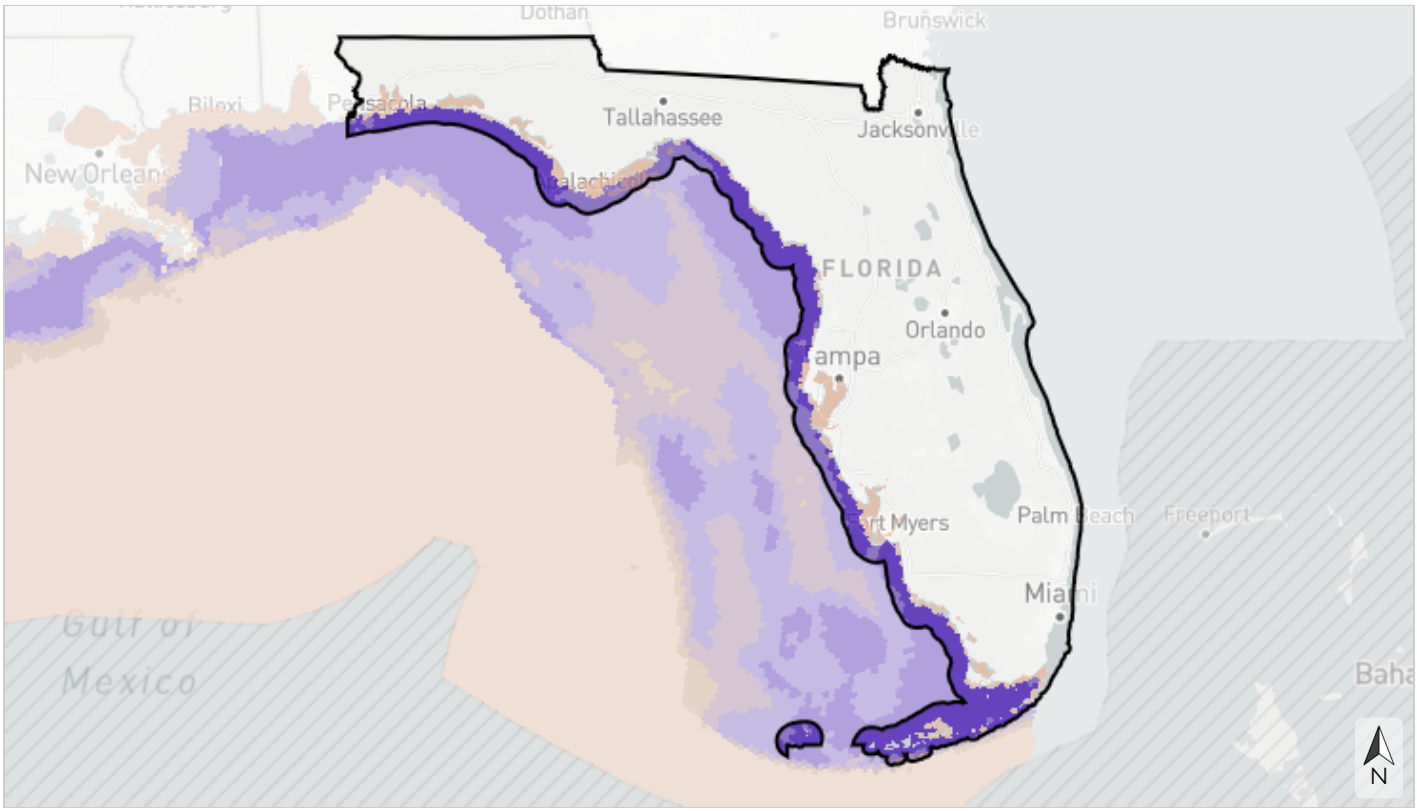
	Indicator Values: Percentile of importance for marine mammal index species (across larger analysis area)	Acres	Percent of Area
↑ High	>90th percentile	74,963	0.2%
	>80th-90th percentile	279,951	0.6%
	>70th-80th percentile	457,612	1.0%
	>60th-70th percentile	435,027	1.0%
	>50th-60th percentile	258,226	0.6%
	>40th-50th percentile	447,157	1.0%
	>30th-40th percentile	302,118	0.7%
	>20th-30th percentile	565,389	1.2%
	>10th-20th percentile	409,003	0.9%
	≤10th percentile	4,508,002	9.9%
↓ Low	Land	135,680	0.3%
	Area not evaluated for this indicator	*37,825,033*	*82.8%*
	Total area	**45,698,163**	**100%**

To learn more and explore the GIS data, view this indicator in the SECAS Atlas.

Coastal & marine

Gulf sea turtles

This indicator identifies important areas in the Gulf of Mexico for sea turtles. It incorporates monthly density predictions for four species (green, Kemp's ridley, leatherback, and loggerhead sea turtles) based on sightings from boat-based and aerial surveys and data on oceanographic conditions. It uses sea turtle models developed by the National Oceanic and Atmospheric Administration as part of the Gulf of Mexico Marine Assessment Program for Protected Species (GoMMAPPS).



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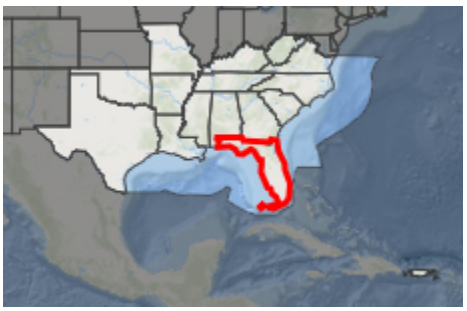


Percentile of importance for sea turtle index species (across larger analysis area)

- >90th percentile
- >80th-90th percentile
- >70th-80th percentile
- >65th-70th percentile
- ≤65th percentile
- Land

Table 34: Indicator values for Gulf sea turtles within Florida. A good condition threshold is not yet defined for this indicator.

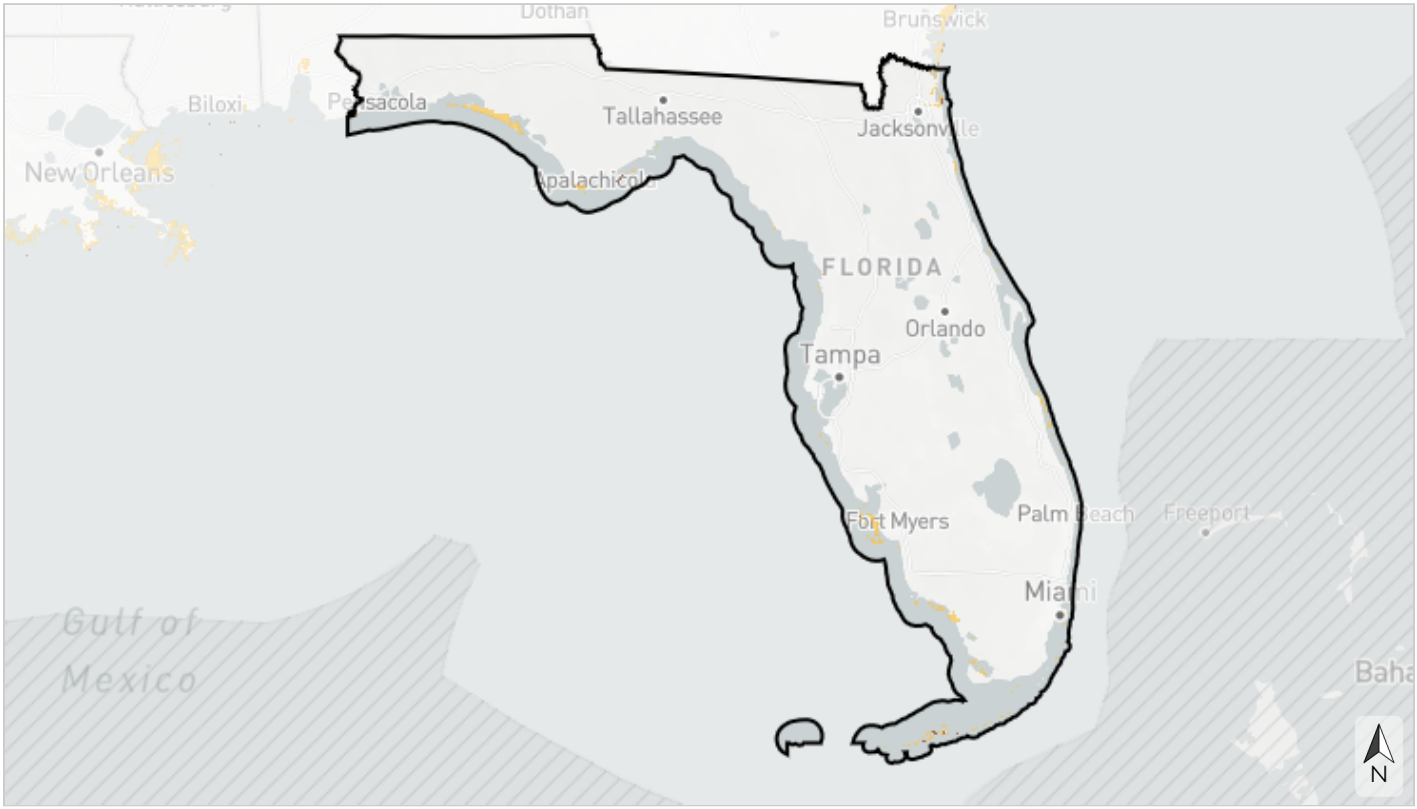
	Indicator Values: Percentile of importance for sea turtle index species (across larger analysis area)	Acres	Percent of Area
↑ High	>90th percentile	4,947,181	10.8%
	>80th-90th percentile	1,334,687	2.9%
	>70th-80th percentile	171,595	0.4%
	>65th-70th percentile	7,978	<0.1%
	≤65th percentile	1,556,231	3.4%
↓ Low	Land	2,305,459	5.0%
	Area not evaluated for this indicator	*35,375,032*	*77.4%*
	Total area	**45,698,163**	**100%**

To learn more and explore the GIS data, view this indicator in the SECAS Atlas.

Coastal & marine

Island habitat

This indicator represents important habitat for coastal island-dependent species across the Southeast. Because the isolation of islands can make them ecologically unique and protect them from disturbance and mainland predators, they often serve as important habitat for many species of mammals, plants, and insects, as well as breeding coastal birds and sea turtles. The highest scores go to island critical habitat for six threatened and endangered animal and plant species: piping plover, loggerhead sea turtle, Cape Sable thoroughwort, Florida semaphore cactus, silver rice rat, and Bartram's hairstreak butterfly. This indicator uses U.S. Fish and Wildlife Service critical habitat data and island boundaries from the U.S. Geological Survey and Esri.



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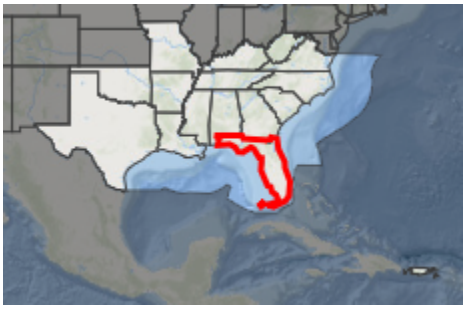


- Island critical habitat for any of six threatened and endangered species (piping plover, loggerhead sea turtle, Cape Sable thoroughwort, Florida semaphore cactus, silver rice rat, or Bartram's hairstreak butterfly)
- Other island area
- Not a coastal island

Table 35: Indicator values for island habitat within Florida. A good condition threshold is not yet defined for this indicator.

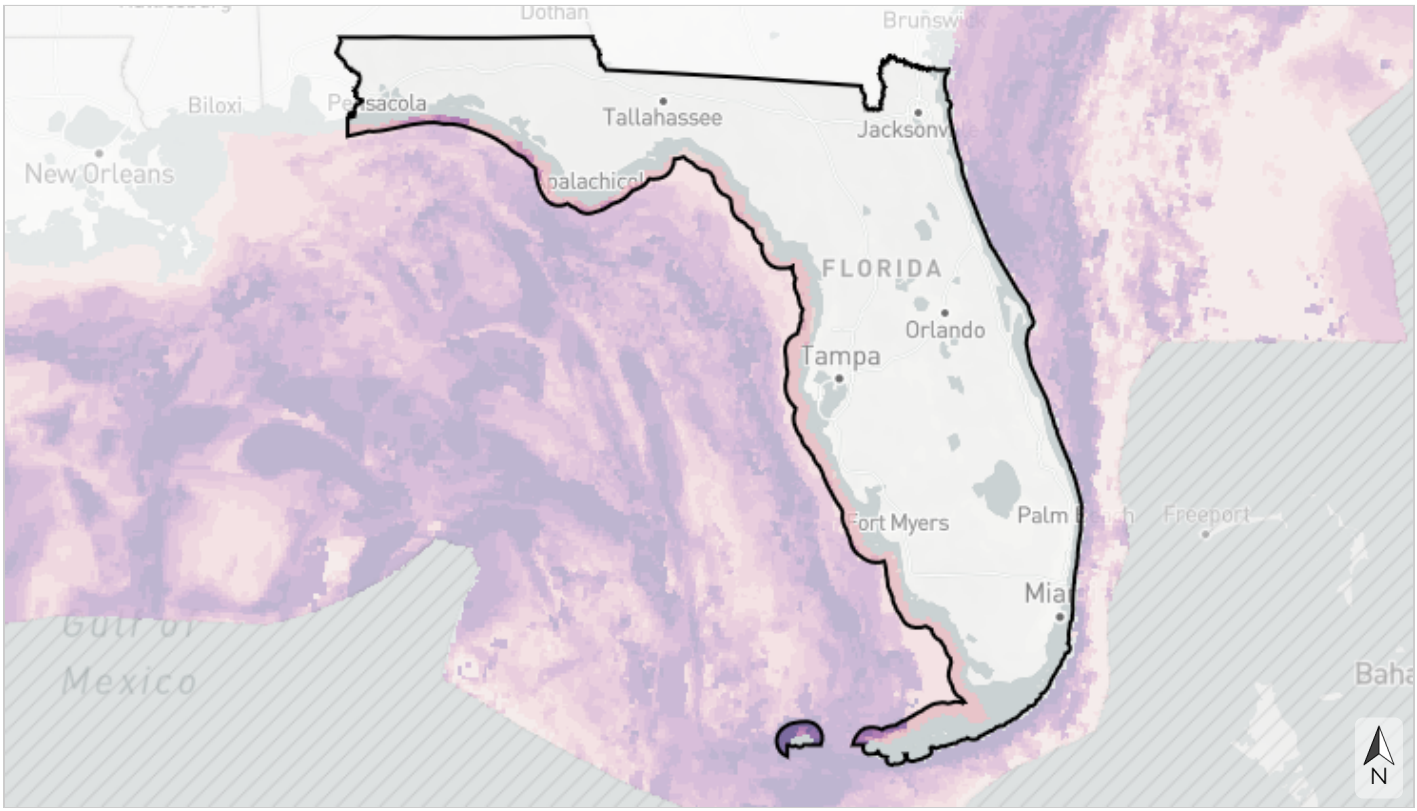
	Indicator Values	Acres	Percent of Area
↑ High	Island critical habitat for any of six threatened and endangered species (piping plover, loggerhead sea turtle, Cape Sable thoroughwort, Florida semaphore cactus, silver rice rat, or Bartram's hairstreak butterfly)	23,647	<0.1%
	Other island area	413,836	0.9%
↓ Low	Not a coastal island	29,998,712	65.6%
	Area not evaluated for this indicator	*15,261,968*	*33.4%*
	Total area	**45,698,163**	**100%**

To learn more and explore the GIS data, view this indicator in the SECAS Atlas.

Coastal & marine

Marine highly migratory fish

This indicator identifies important foraging and spawning areas for highly migratory fish in the Atlantic Ocean and Gulf of Mexico. It uses physical capture and satellite tag observations, remote sensing of environmental variables, and physical oceanographic data to analyze the habitat preferences of three species (skipjack tuna, bluefin tuna, and blue shark) at various life stages. It originates from European Commission Joint Research Centre global fish models.



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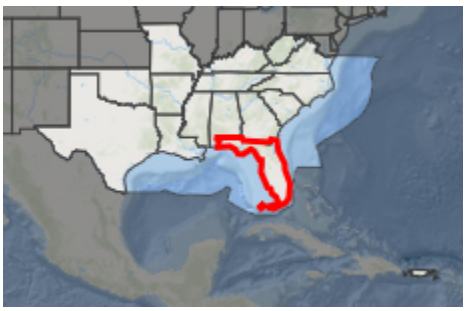


Percentile of importance for bluefin and skipjack tuna or blue shark

- >90th percentile
- >80th-90th percentile
- >70th-80th percentile
- >60th-70th percentile
- >50th-60th percentile
- >40th-50th percentile
- >30th-40th percentile
- ≤30th percentile

Table 36: Indicator values for marine highly migratory fish within Florida. A good condition threshold is not yet defined for this indicator.

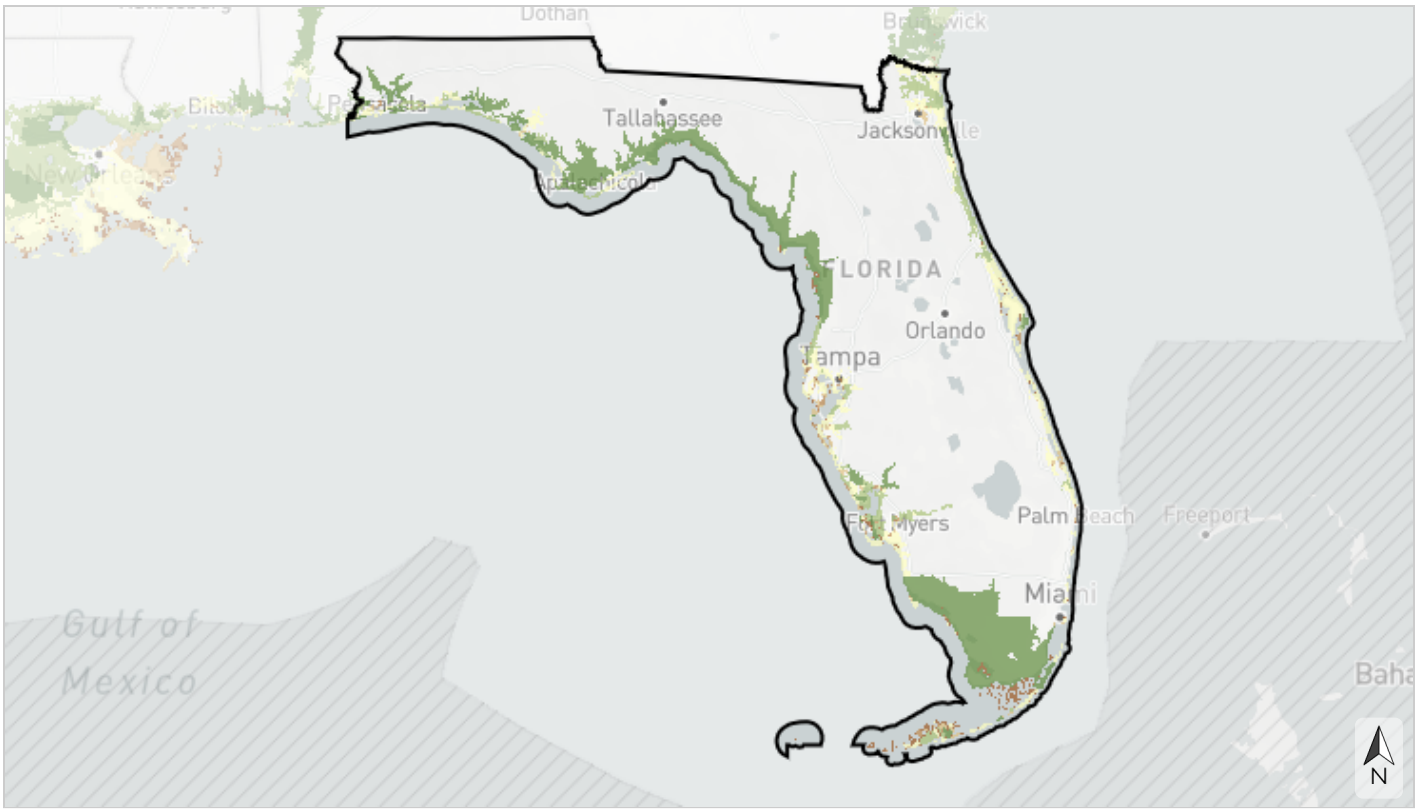
	Indicator Values: Percentile of importance for bluefin and skipjack tuna or blue shark	Acres	Percent of Area
↑ High	>90th percentile	158,302	0.3%
	>80th-90th percentile	115,950	0.3%
	>70th-80th percentile	108,496	0.2%
	>60th-70th percentile	146,752	0.3%
	>50th-60th percentile	108,488	0.2%
	>40th-50th percentile	270,822	0.6%
	>30th-40th percentile	2,328,641	5.1%
↓ Low	≤30th percentile	110,962	0.2%
	Area not evaluated for this indicator	*42,349,750*	*92.7%*
	Total area	**45,698,163**	**100%**

To learn more and explore the GIS data, view this indicator in the SECAS Atlas.

Coastal & marine

Resilient coastal sites

This indicator depicts the capacity of coastal habitats to migrate to adjacent lowlands in order to sustain biodiversity and natural services under increasing inundation from sea-level rise. It is based on the physical and condition characteristics of current tidal complexes, their predicted migration space, and surrounding buffer areas. These characteristics include marsh complex size, shared edge with migration space, sediment balance, water quality, natural landcover, landform diversity, and more. This indicator originates from The Nature Conservancy's Resilient Coastal Sites project.



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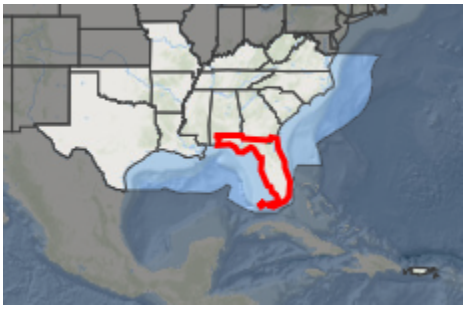


- Most resilient
- More resilient
- Slightly more resilient
- Average/median resilience
- Slightly less resilient
- Less resilient
- Least resilient

Table 37: Indicator values for resilient coastal sites within Florida. A good condition threshold is not yet defined for this indicator.

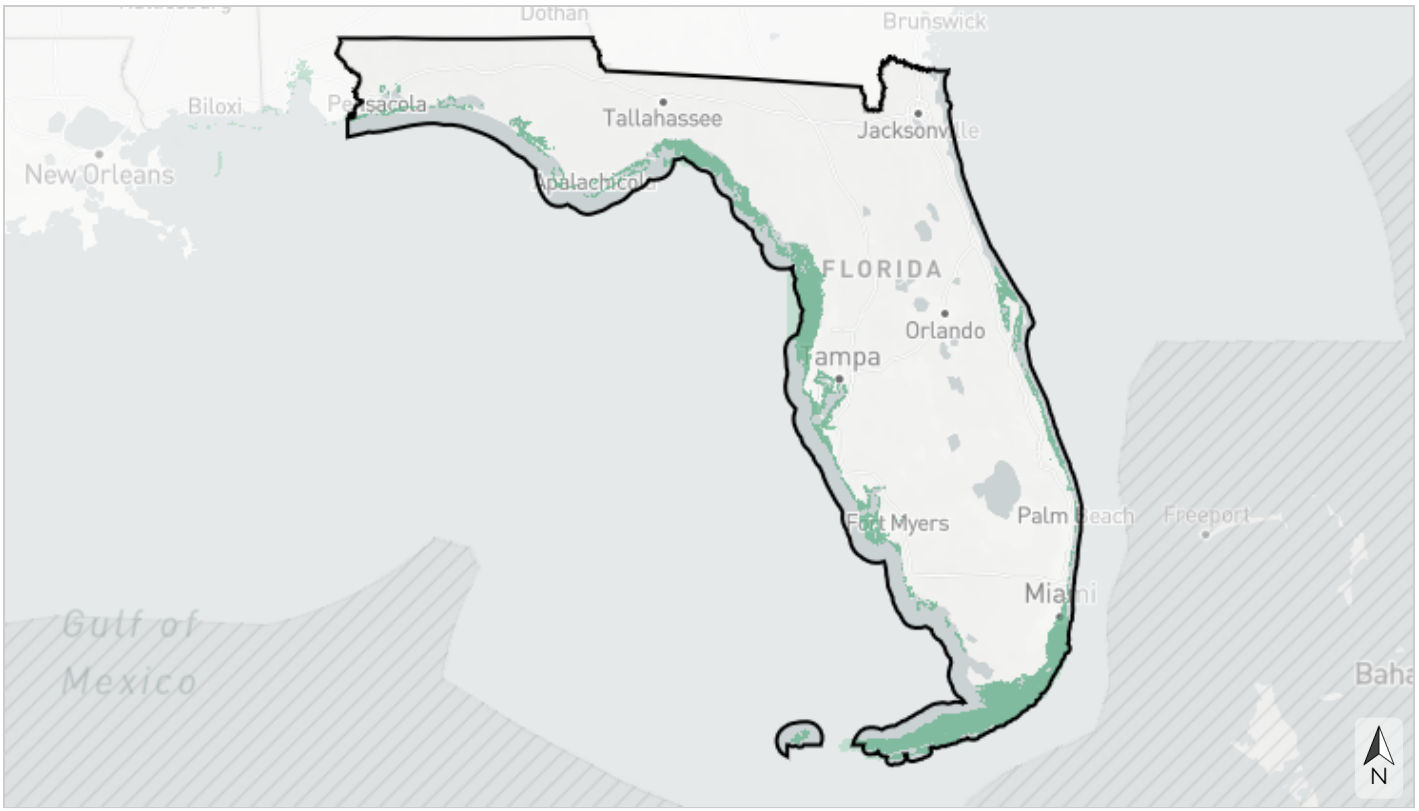
	Indicator Values	Acres	Percent of Area
↑ High	Most resilient	0	0%
	More resilient	2,768,618	6.1%
	Slightly more resilient	258,699	0.6%
	Average/median resilience	349,437	0.8%
	Slightly less resilient	19,317	<0.1%
	Less resilient	7,934	<0.1%
↓ Low	Least resilient	21,751	<0.1%
	Area not evaluated for this indicator	*42,272,405*	*92.5%*
	Total area	**45,698,163**	**100%**

To learn more and explore the GIS data, view this indicator in the SECAS Atlas.

Coastal & marine

Seagrass

This indicator represents the presence of seagrass in the Atlantic Ocean and Gulf of Mexico. Seagrasses provide food and habitat for a range of marine and estuarine wildlife, including fish, sea turtles, shrimp, crabs, oysters, and more. They also produce oxygen, filter water, control erosion, and buffer storms. Seagrasses serve as an important indicator of the overall health of coastal ecosystems because they are sensitive to water quality and require sufficiently clear water for sunlight to penetrate. This indicator originates from the National Oceanic and Atmospheric Administration's Marine Cadastre.



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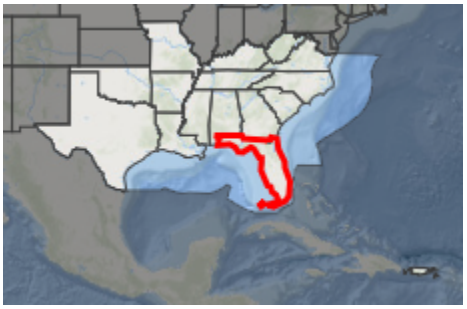


Seagrass present

Table 38: Indicator values for seagrass within Florida. A good condition threshold is not yet defined for this indicator.

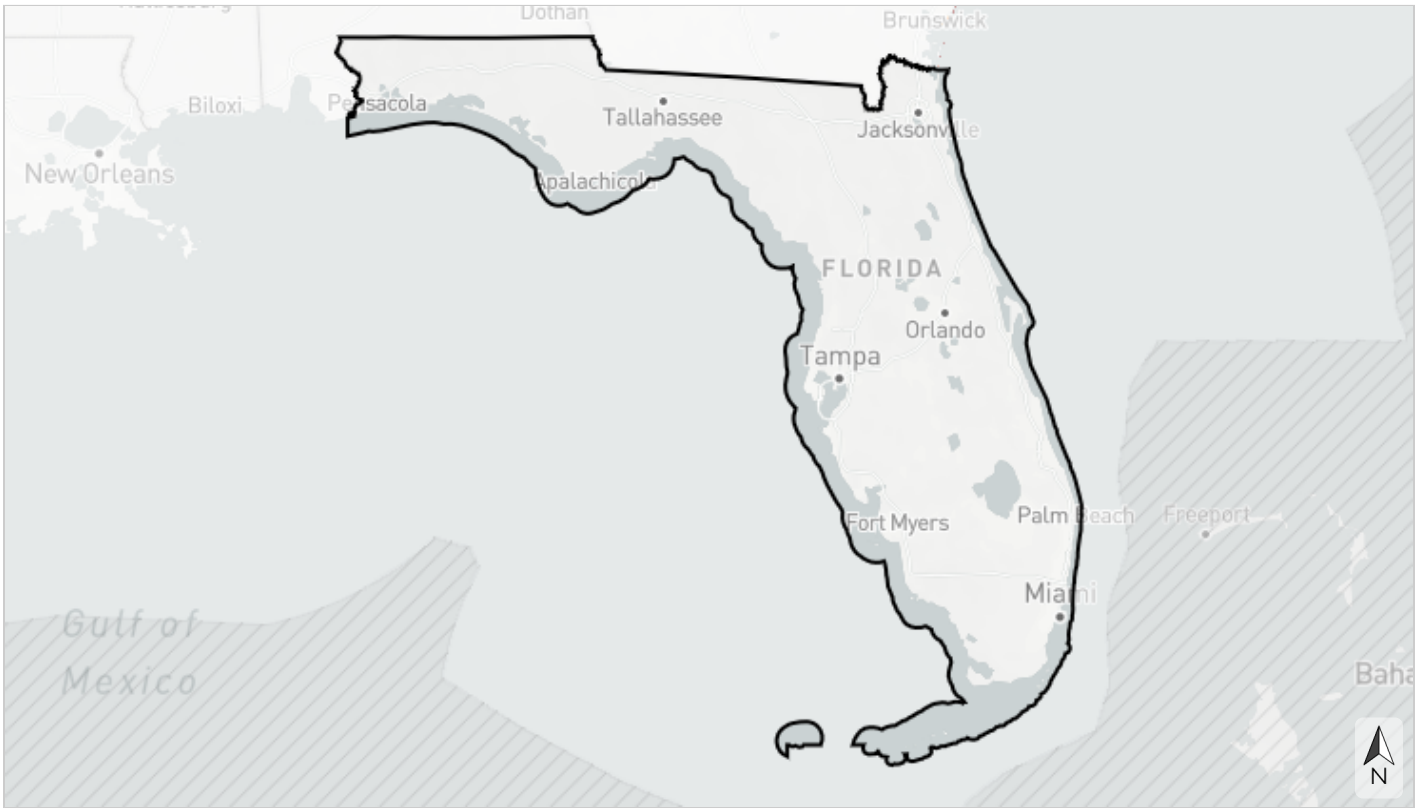
	Indicator Values	Acres	Percent of Area
↑ High	Seagrass present	2,289,118	5.0%
	Area not evaluated for this indicator	*43,409,045*	*95.0%*
	Total area	**45,698,163**	**100%**

To learn more and explore the GIS data, view this indicator in the SECAS Atlas.

Coastal & marine

South Atlantic beach birds

This indicator is an index of habitat suitability for four shorebird species (American oystercatcher, Wilson's plover, least tern, piping plover) in the South Atlantic, based on observed abundance. It assesses beaches and nearby onshore habitats. Shorebirds' relative use of beaches and neighboring habitats for nesting, foraging, and breeding is an indicator of ecosystem health and quality. This indicator combines bird data from the U.S. Geological Survey and state waterbird biologists in FL, GA, SC, and NC.



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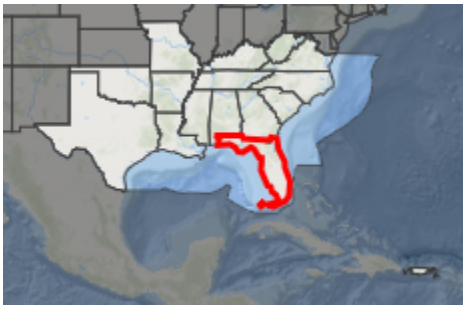


Percentile of importance for beach bird index species

- >80th percentile
- >60th-80th percentile
- >40th-60th percentile
- >20th-40th percentile
- ≤20th percentile
- Open water or not identified as a priority

Table 39: Indicator values for South Atlantic beach birds within Florida. A good condition threshold is not yet defined for this indicator.

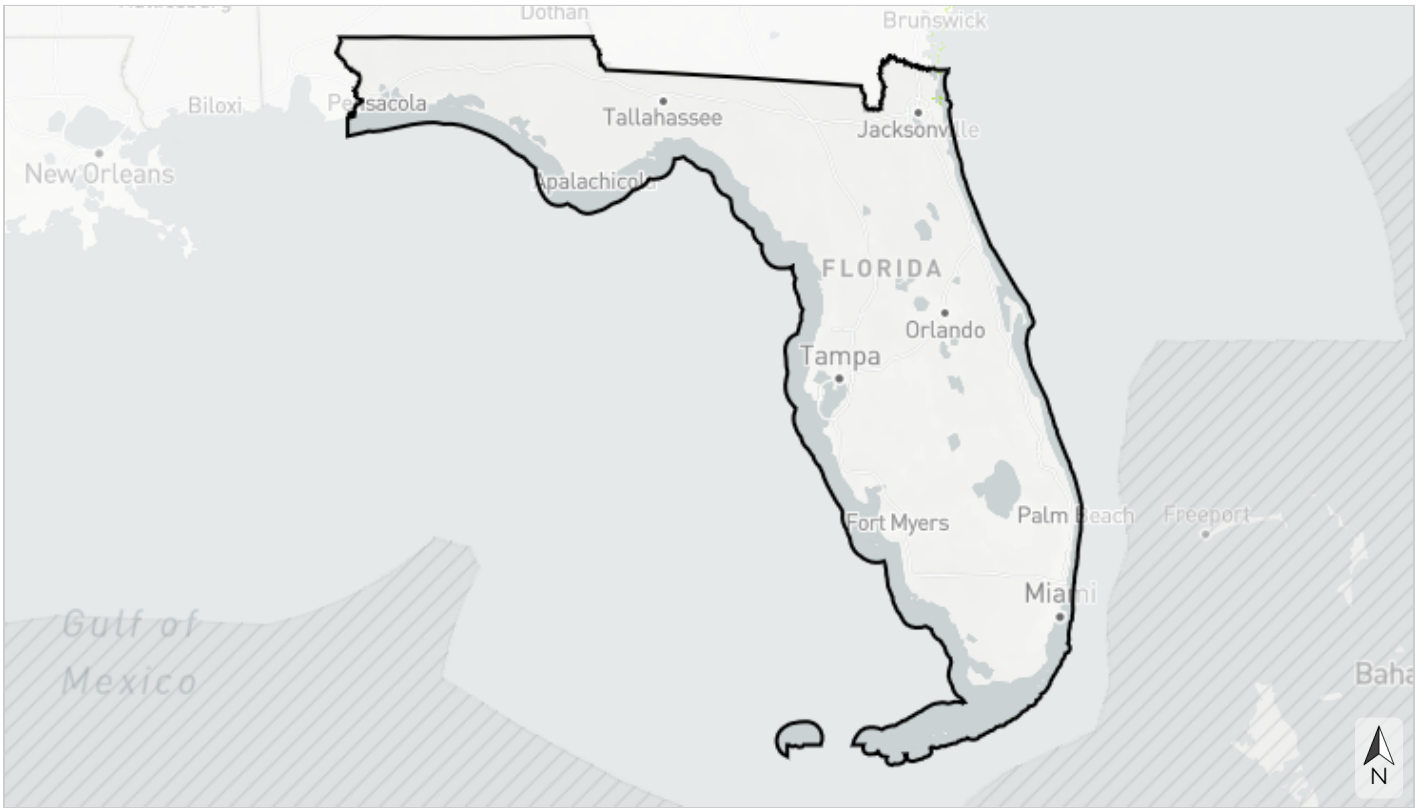
	Indicator Values: Percentile of importance for beach bird index species	Acres	Percent of Area
↑ High	>80th percentile	969	<0.1%
	>60th-80th percentile	701	<0.1%
	>40th-60th percentile	0	0%
	>20th-40th percentile	0	0%
	≤20th percentile	161	<0.1%
↓ Low	Open water or not identified as a priority	246,784	0.5%
	Area not evaluated for this indicator	*45,449,548*	*99.5%*
	Total area	**45,698,163**	**100%**

To learn more and explore the GIS data, view this indicator in the SECAS Atlas.

Coastal & marine

South Atlantic maritime forest

This indicator depicts the maritime forest currently present in the South Atlantic. Since maritime forest has been substantially reduced from its historic extent, protecting the remaining acreage is particularly important. This ecosystem supports a unique suite of plants that tolerate wind, salt, and flooding, as well as many species of birds, mammals, and reptiles. It also helps buffer the coastline from storms. This indicator originates from LANDFIRE landcover.



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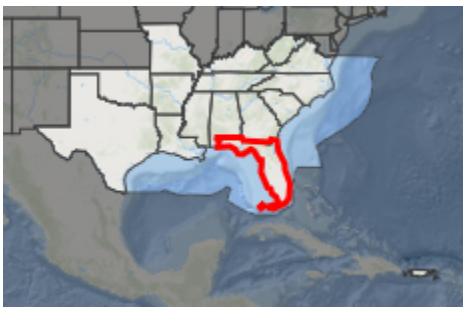


Maritime forest

Not identified as maritime forest

Table 40: Indicator values for South Atlantic maritime forest within Florida. A good condition threshold is not yet defined for this indicator.

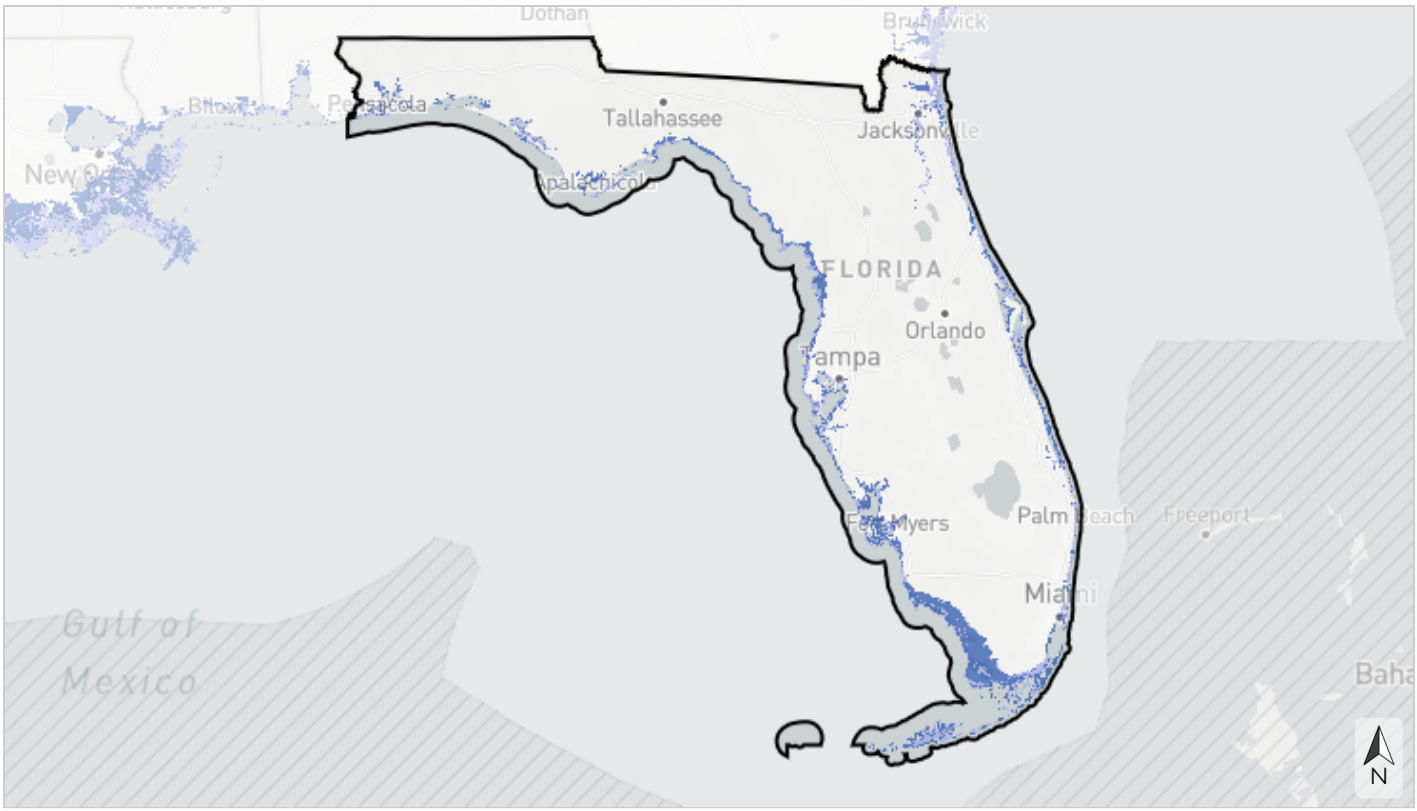
	Indicator Values	Acres	Percent of Area
↑ High	Maritime forest	10,148	<0.1%
↓ Low	Not identified as maritime forest	3,076,392	6.7%
	Area not evaluated for this indicator	*42,611,623*	*93.2%*
	Total area	**45,698,163**	**100%**

To learn more and explore the GIS data, view this indicator in the SECAS Atlas.

Coastal & marine

Stable coastal wetlands

This indicator uses remote sensing to calculate the unvegetated-vegetated ratio of tidal wetlands, which compares how much of a wetland is not covered by plants (e.g., sediment, rocks, open water) to how much is covered by plants. Marshes that maintain a higher proportion of vegetation tend to be more stable and resilient to threats like sea-level rise, erosion, and coastal development. This ratio, and how it changes over time, is a good surrogate for salt marsh degradation processes like sediment loss and conversion to open water. This indicator originates from a U.S. Geological Survey project on an unvegetated to vegetated ratio for coastal wetlands.



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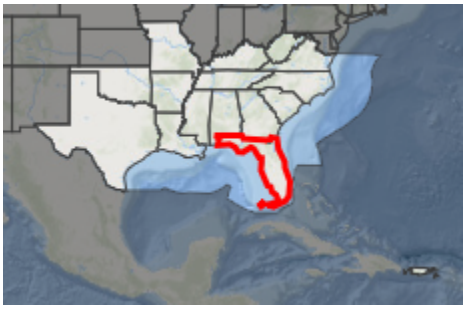


- Stable coastal wetlands
- Other coastal wetlands
- Not identified as coastal wetlands

Table 41: Indicator values for stable coastal wetlands within Florida. Good condition thresholds reflect the range of indicator values that occur in healthy, functioning ecosystems.

	Indicator Values	Acres	Percent of Area	
↑ High	Stable coastal wetlands	1,108,435	2.4%	
	Other coastal wetlands	279,743	0.6%	↑ In good condition
↓ Low	Not identified as coastal wetlands	10,622,311	23.2%	↓ Not in good condition
	Area not evaluated for this indicator	*33,687,673*	*73.7%*	
	Total area	**45,698,163**	**100%**	

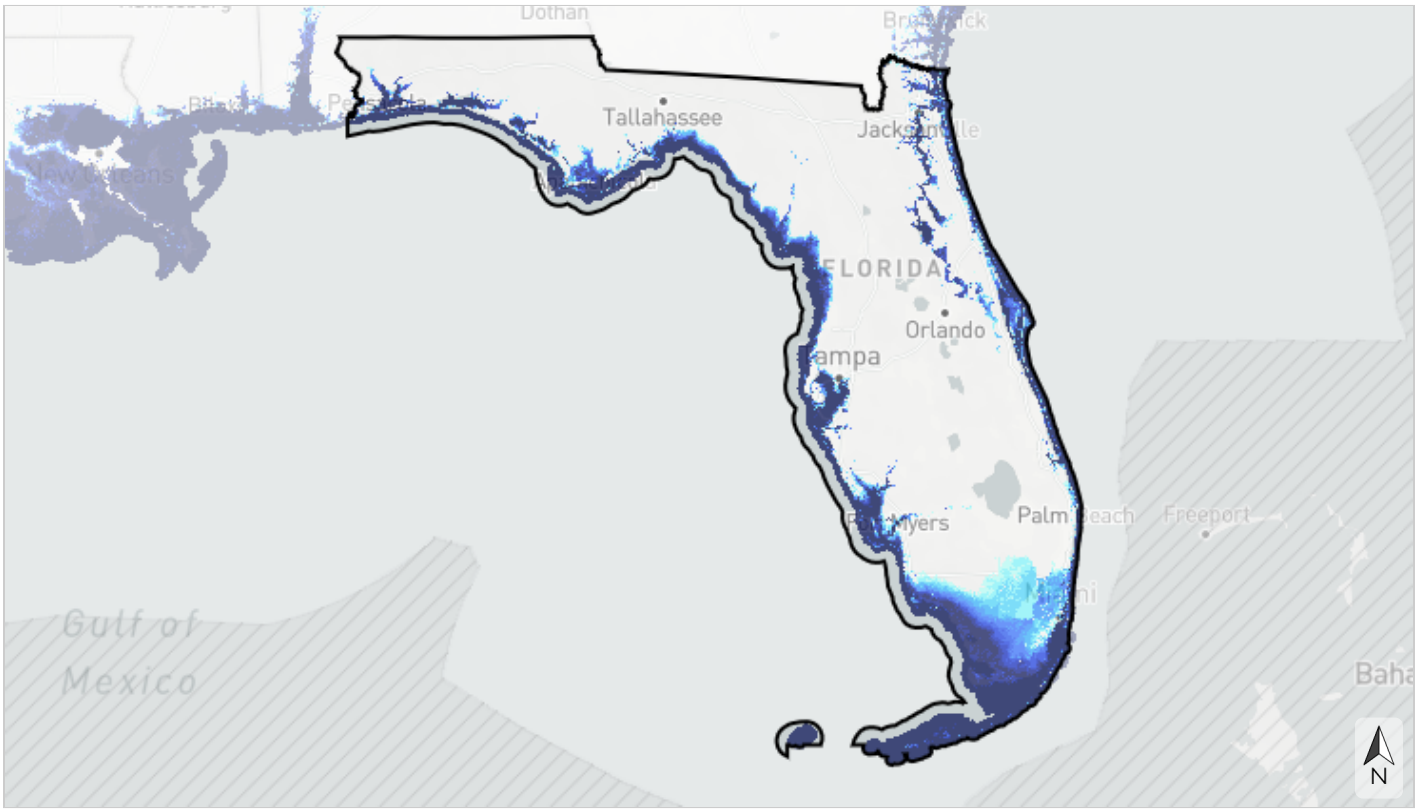
To learn more and explore the GIS data, view this indicator in the SECAS Atlas.

Threats

Sea-level rise

NOAA's sea-level rise (SLR) inundation models represent areas likely to experience flooding at high tide based on each foot of SLR above current levels. Darker blue areas will experience flooding first, and at greater depth, compared to lighter blue areas. These models are not linked to a future timeframe; see the projections below. NOAA calculates the inundation footprint at "mean higher high water", or the average highest daily tide. The area covered in each SLR scenario includes areas projected to be inundated at lower levels. For example, the area inundated by 4 ft of SLR also includes areas inundated by 3 ft, 2 ft, 1 ft, and 0 ft of SLR (where 0 ft represents current levels).

To explore additional SLR information, please see NOAA's Sea Level Rise Viewer.



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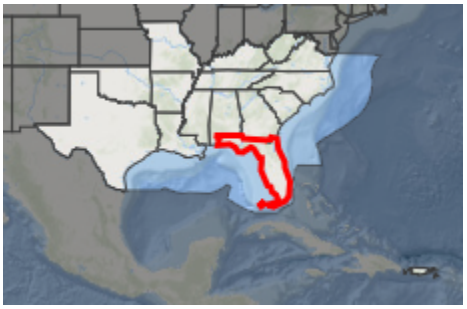


Flooding extent by projected sea-level rise (ft)

0 1 2 3 4 5 6 7 8 9 10

Table 42: Extent of flooding by projected average highest daily tide due to sea level rise within Florida. Values from the NOAA sea-level rise inundation data.

Feet of sea-level rise	Acres	Percent of Area
0 feet	6,792,251	14.9%
1 foot	7,575,392	16.6%
2 feet	8,053,294	17.6%
3 feet	8,422,260	18.4%
4 feet	8,764,845	19.2%
5 feet	9,222,145	20.2%
6 feet	9,708,184	21.2%
7 feet	10,216,613	22.4%
8 feet	10,847,358	23.7%
9 feet	11,464,988	25.1%
10 feet	11,913,006	26.1%
Not projected to be inundated by up to 10 feet	*16,659,224*	*36.5%*
Sea-level rise unlikely to be a threat (inland counties)	*13,551,898*	*29.7%*
Sea-level rise data unavailable	*3,574,034*	*7.8%*
Total area	**45,698,163**	**100%**

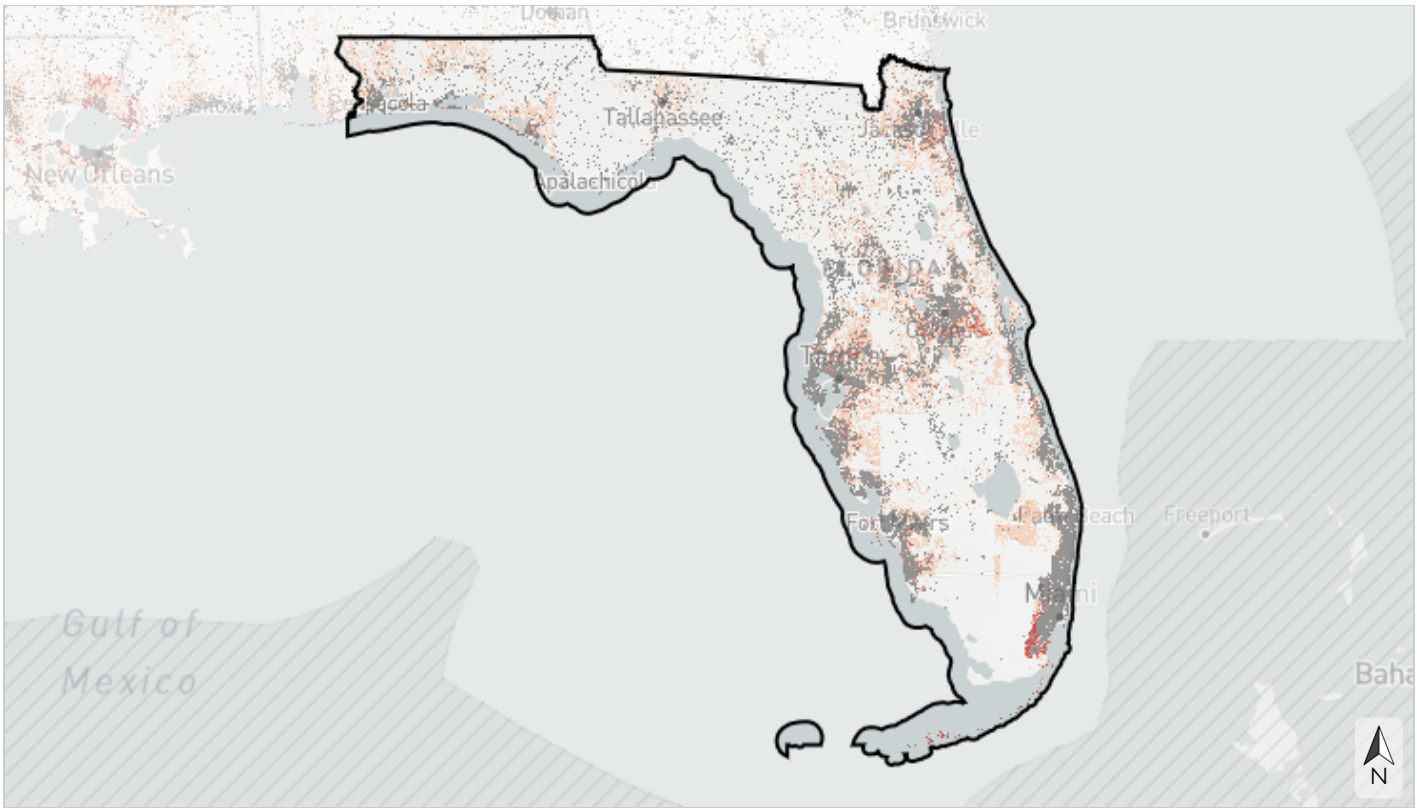
Table 43: Projected sea level rise by decade within Florida. Values are based on area-weighted averages of decadal projections for 1-degree grid cells that overlap this area based on NOAA's 2022 Sea Level Rise Report. 2060 corresponds to the SECAS goal: a 10% or greater improvement in the health, function, and connectivity of Southeastern ecosystems by 2060.

SLR Scenario	2020 (ft)	2030 (ft)	2040 (ft)	2050 (ft)	2060 (ft)	2070 (ft)	2080 (ft)	2090 (ft)	2100 (ft)
Low	0.31	0.48	0.66	0.82	0.97	1.1	1.2	1.3	1.4
Intermediate-low	0.34	0.54	0.75	0.96	1.2	1.4	1.6	1.8	2
Intermediate	0.35	0.56	0.81	1.1	1.4	1.8	2.3	2.9	3.6
Intermediate-high	0.35	0.59	0.9	1.3	1.8	2.5	3.3	4.2	5.1
High	0.35	0.62	0.98	1.5	2.2	3.2	4.3	5.5	6.8

Urban growth

The FUTURES urban growth model predicts the likelihood that an area will urbanize at every decade from 2020 to 2100. Developed areas from the 2021 National Landcover Database serve as the baseline for current urban areas. The model simulates landscape change based on trends in population growth, local development suitability factors, and an urban patch-growing algorithm. It considers environmental drivers like distance to floodplain, slope, and available infrastructure, and even socio-economic status. The probability of urbanization for each area reflects how many times it urbanized out of 50 model runs.

To explore maps for additional time periods, click here.



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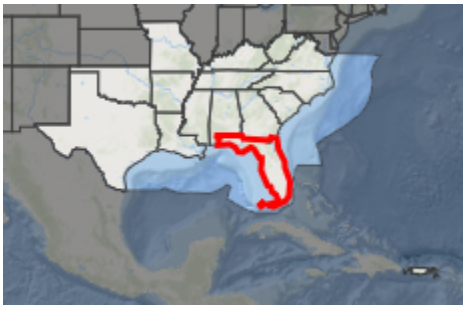
333 miles
83
166



Probability of urbanization by 2060

- Urban in 2021
- Very high likelihood of urbanization (>50% probability)
- High likelihood of urbanization (25 - 50% probability)
- Moderate likelihood of urbanization (2 - 25% probability)
- Not likely to urbanize

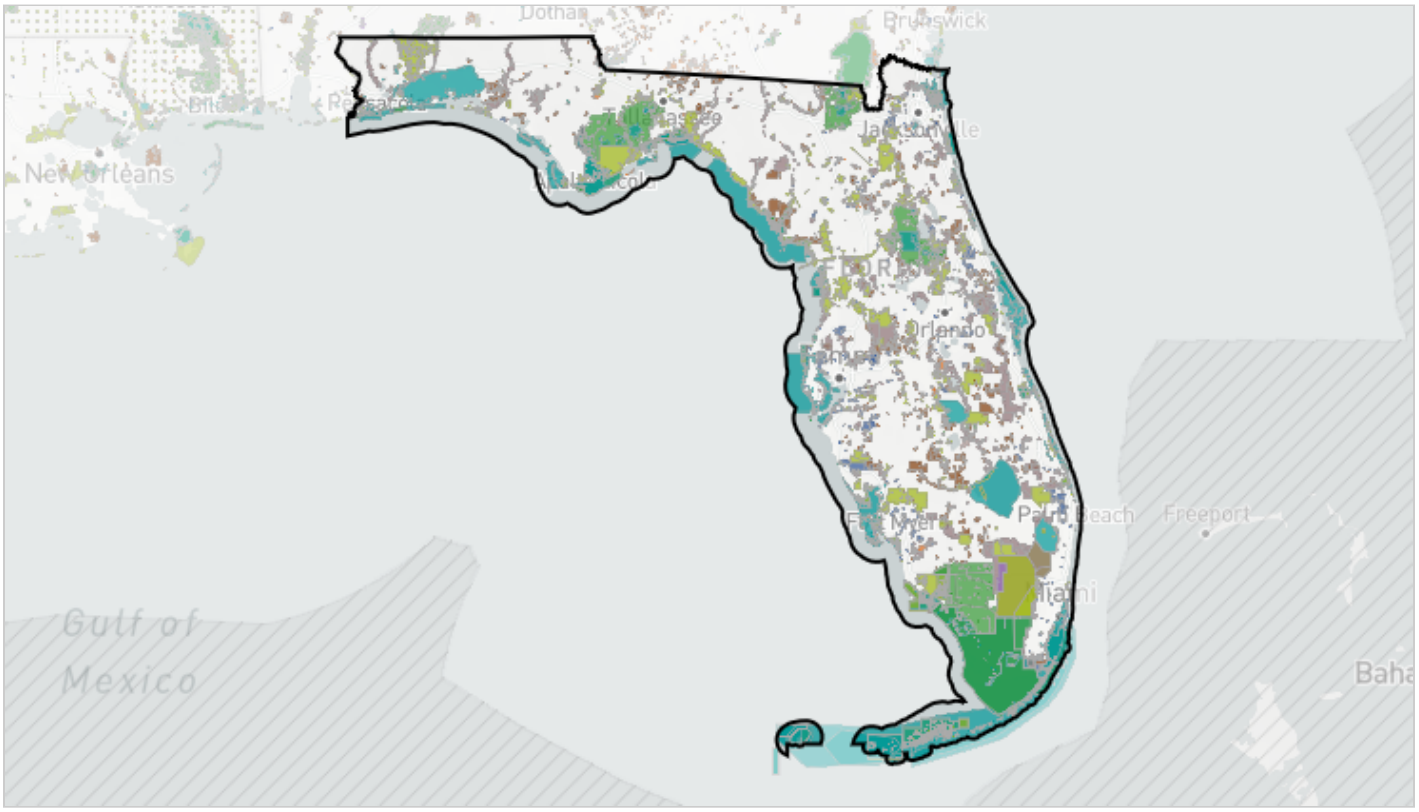
12.6% of this area is already urban in 2021, and an additional 12.3% has at least a moderate probability of urbanizing by 2060.

Table 44: Extent of projected urbanization by decade within Florida. Values from FUTURES model projections for the contiguous United States developed by the Center for Geospatial Analytics, NC State University. 2060 corresponds to the SECAS goal: a 10% or greater improvement in the health, function, and connectivity of Southeastern ecosystems by 2060.

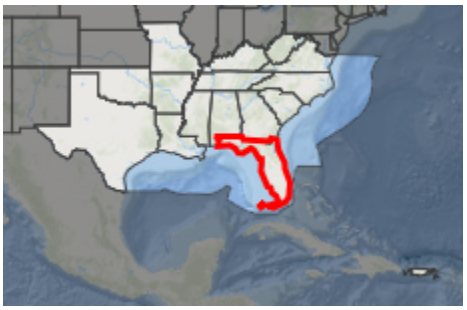
Decade	Acres	Percent of Area
Urban in 2021	5,764,045	12.6%
2030 projected extent	5,965,613	13.1%
2040 projected extent	6,107,901	13.4%
2050 projected extent	6,219,537	13.6%
2060 projected extent	6,315,061	13.8%
2070 projected extent	6,396,501	14.0%
2080 projected extent	6,453,162	14.1%
2090 projected extent	6,486,677	14.2%
2100 projected extent	6,502,683	14.2%
Not projected to urbanize by 2100	*29,938,055*	*65.5%*
Total area	**45,698,163**	**100%**

Ownership and Partners

Conserved lands ownership



83 166 333 miles

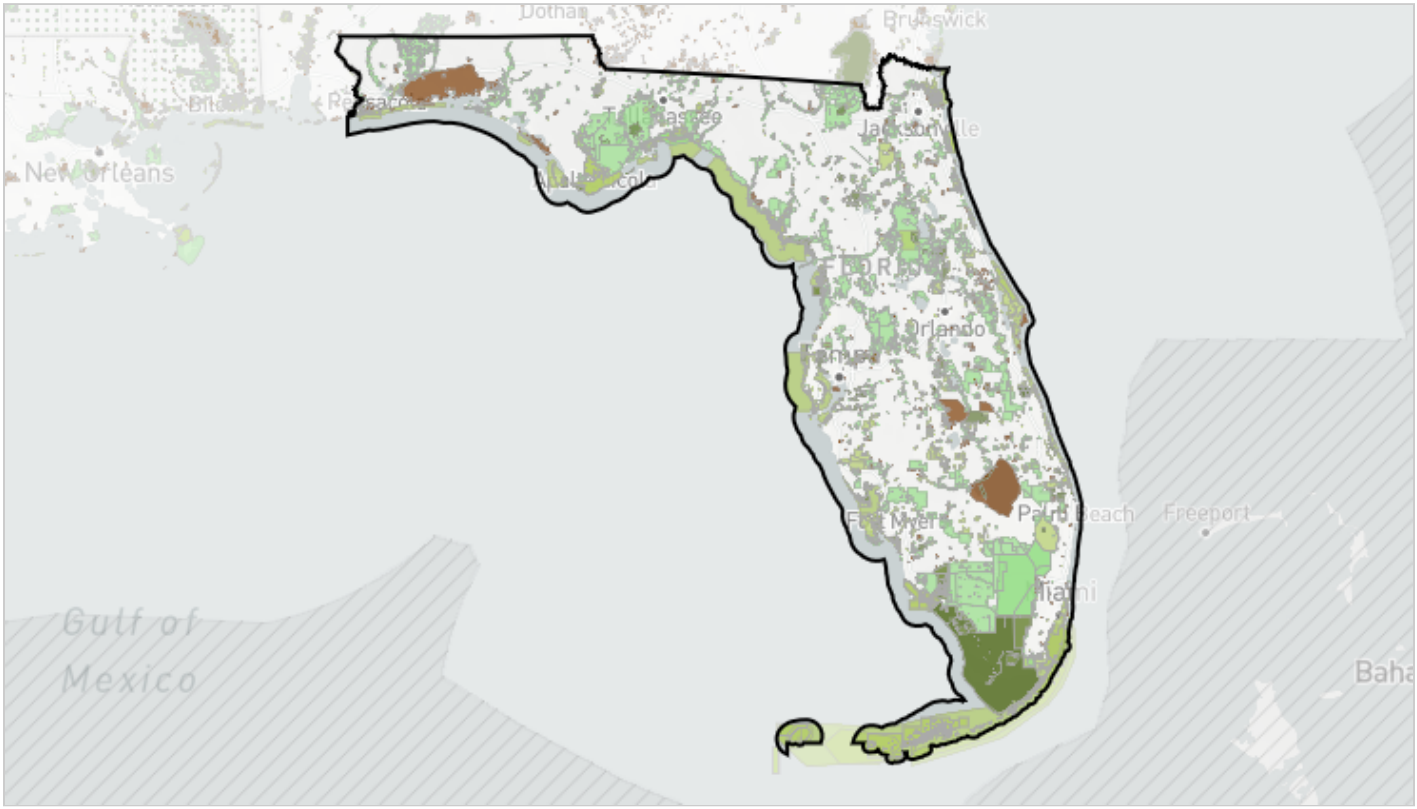


- Federal
- State/province
- Territorial
- Regional
- Local
- Joint
- Private non-profit conserved lands
- Private conservation land
- Tribal
- Designation
- Ownership unknown

Table 45: Extent of ownership class within Florida. Protected areas are derived from the Protected Areas Database of the United States (PAD-US v4.0 and v3.0) and include Fee, Designation, Easement, Marine, and Proclamation (Dept. of Defense lands only) boundaries. Note: areas are based on the polygon boundary of this area compared to protected area polygons, rather than pixel-level analyses used elsewhere in this report. Also note: PAD-US includes protected areas that may overlap within a given area; this may cause the area within and between the following categories to be greater than the actual ground area.

Ownership	Acres	Percent of Area
Federal	4,362,290	9.5%
State/province	4,176,452	9.1%
Regional	2,358,542	5.2%
Local	573,428	1.3%
Joint	393	<0.1%
Private non-profit conserved lands	81,948	0.2%
Private conservation land	1,296,449	2.8%
Tribal	46,199	0.1%
Designation	11,117,377	24.3%
Ownership unknown	60,158	0.1%

Land protection status



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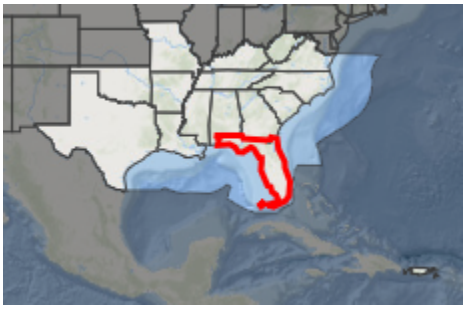

- Managed for biodiversity (disturbance events proceed or are mimicked)
- Managed for biodiversity (disturbance events suppressed)
- Managed for multiple uses (subject to extractive uses such as mining or logging, or OHV use)
- No known mandate for biodiversity protection

Table 46: Extent of land protection status within Florida. Protected areas are derived from the Protected Areas Database of the United States (PAD-US v4.0 and v3.0) and include Fee, Designation, Easement, Marine, and Proclamation (Dept. of Defense lands only) boundaries. Note: areas are based on the polygon boundary of this area compared to protected area polygons, rather than pixel-level analyses used elsewhere in this report. Also note: PAD-US includes protected areas that may overlap within a given area; this may cause the area within and between the following categories to be greater than the actual ground area.

Land Protection Status	Acres	Percent of Area
Managed for biodiversity (disturbance events proceed or are mimicked)	3,919,806	8.6%
Managed for biodiversity (disturbance events suppressed)	10,572,110	23.1%
Managed for multiple uses (subject to extractive uses such as mining or logging, or OHV use)	7,920,900	17.3%
No known mandate for biodiversity protection	1,660,420	3.6%

Protected Areas

- Everglades National Park (Unknown; 1,538,630 acres)
- EVER (NPS; 1,532,380 acres)
- Florida Keys National Marine Sanctuary (Unknown; 1,403,774 acres)
- Marjory Stoneman Douglas Wilderness (Unknown owner; 1,338,506 acres)
- National Forests in Florida (USDA FOREST SERVICE; 1,210,284 acres)
- BICY (NPS; 683,677 acres)
- Big Bend Seagrasses Aquatic Preserve (Unknown; 680,739 acres)
- Everglades and Francis S. Taylor Wildlife Management Area (Trustees of the Internal Improvement Trust Fund; 669,448 acres)
- Water ConservationArea 3A (SOUTH FLORIDA WATER MANAGEMENT DISTRICT; 528,969 acres)
- Eglin Air Force Base (Unknown owner; 450,012 acres)
- Lake Okeechobee (Unknown owner; 440,465 acres)
- Florida Keys Areas to be Avoided (Unknown; 390,961 acres)
- Pinellas County Aquatic Preserve (Unknown; 351,938 acres)
- Apalachicola National Estuarine Research Reserve (Unknown; 235,675 acres)
- Blackwater River State Forest (Trustees of the Internal Improvement Trust Fund; 206,191 acres)
- Tate's Hell State Forest (Trustees of the Internal Improvement Trust Fund; 204,575 acres)
- Great White Heron National Wildlife Refuge (Trustees of the Internal Improvement Trust Fund; 203,810 acres)
- Key West National Wildlife Refuge (Trustees of the Internal Improvement Trust Fund; 188,974 acres)
- Key West National Wildlife Refuge (Unknown; 187,836 acres)
- Key West National Wildlife Refuge (A; 185,196 acres)
- Withlacoochee State Forest (Trustees of the Internal Improvement Trust Fund; 165,562 acres)
- Biscayne National Park (Unknown; 157,164 acres)
- BISC (NPS; 155,762 acres)
- Arthur R. Marshall Loxahatchee National Wildlife Refuge (A; 141,434 acres)
- Secretary Of Interior Closing Order Boundary Parcel 1 (Unknown owner; 139,243 acres)

Credits

This report was generated by the Southeast Conservation Blueprint Explorer, which was developed by Astute Spruce, LLC in partnership with the U.S. Fish and Wildlife Service under the Southeast Conservation Adaptation Strategy.

Data credits

Land ownership and conservation status is derived from the Protected Areas Database of the United States (PAD-US v4.0 and v3.0).

Future urban growth estimates derived from FUTURES model projections for the contiguous United States developed by the Center for Geospatial Analytics, NC State University.

Sea level rise data are derived from the National Oceanic and Atmospheric Administration's Sea Level Rise Inundation Depth Data and the 2022 Sea Level Rise Technical Report.

Names and descriptions of public Priority Amphibian and Reptile Areas provided by the Amphibian and Reptile Conservancy on August 30, 2024 and edited slightly for clarity and consistency.