BIG CYPRESS
Regional Introduction

- Big Cypress Region
- State Parks - Big Cypress Region
- Other State Parks
- National Park Service
- U.S. Fish & Wildlife Service
- Tribal Lands
- Florida Forest Service
- Other Conservation Lands
- Agricultural Lands
- Aquatic Preserves
- County Boundaries

BIG CYPRESS REGION

FLORIDA PARK SERVICE - SOUTHWEST DISTRICT

0 5 10 Miles

N W E S

Charlotte Harbor
Bokeelia
Gator Slough Canal
Matlacha Pass
PINE ISLAND
Pine Island Sound
Matlacha
Cape Coral
Caloosahatchee River
CHARLOTTE
North Fort Myers
Tice
CALOOSAHATCHEE NATIONAL WILDLIFE REFUGE
Fort Myers Shores
Alva
Fort Myers
Gateway
Six-Mile Cypress Slough Preserve (Lee Co.)
Lehigh Acres
Orange River
Villas
LEE
Estero Bay Preserve State Park
Hendry Creek
Estero Bay
St. James City
MATLACHA PASS N.W.R.
SANIBEL ISLAND
Sanibel
Fort Myers Beach
San Carlos Park
Koreshan Historic State Park
Estero
Imperial Marsh (Lee Co.)
Corkscrew
L. Kiker Preserve (Lee Co.)
Corkscrew Swamp Sanctuary (Private)
Corkscrew Regional Ecosystem Watershed
Mound Key Archaeological State Park
Lovers Key State Park
Estero Bay Aquatic Preserve
Bonita Shores
Bonita Springs
Delnor-Wiggins Pass
Delnor-Wiggins Pass State Park
Naples Park
Vanderbilt Beach
Pelican Bay
Gulf of America
Golden Gate
Naples
East Naples
Gordon Pass
Naples Bay
Naples Manor
Picayune Strand State Forest
Collier-Seminole State Park
Fakahatchee Strand Preserve State Park
Big Marco Pass
Marco Island
MARCO ISLAND
Goodland
TEN THOUSAND ISLANDS N.W.R.
Rookery Bay Aquatic Preserve
Cape Romano
Cape Romano-Ten Thousand Islands Aquatic Preserve
TEN THOUSAND ISLANDS
EVERGLADES NATIONAL PARK
Caloosahatchee Canal
LaBelle
Port La Belle
GLADES
Lake Hicpochee
Caloosahatchee Storage Basin Reservoirs (SWFWMD)
FLORIDA PANTHER CONSERVATION BANK II C.E.
Townsend Canal
Spirit of the Wild W.M.A. (FWC)
Okaloacoochee State Forest
Okaloacoochee Slough W.M.A (FWC)
Felda
HENDRY
Lake Trafford
Immokalee
IMMOKALEE RESERVATION
Orangetree
FLORIDA PANTHER NATIONAL WILDLIFE REFUGE
COLLIER
Jerome
Copeland
BIG CYPRESS NATIONAL PRESERVE
TEN THOUSAND ISLANDS N.W.R.
Everglades City
Chokoloskee Bay
Turner River
Chokoloskee
EVERGLADES NATIONAL PARK
Chevalier Bay
Wetlands Reserve Program Easements (USDA)
Shawnee
Clewiston
Lake Okeechobee
Harlem
Lake Okeechobee Marsh (FWC)
Lake Harbor
South Bay
Belle Glade
Runyon
West Palm Beach Canal
Bolles Canal
Hillsboro Canal
ARTHUR R. MARSHALL LOXAHATCHEE NATIONAL WILDLIFE REFUGE
PALM BEACH
N. New River Canal
Everglades Conservation Area (SW Florida Water Mgmt. Dist.)
Stormwater Treatment Areas (SWFWMD)
Rotenberger W.M.A. (FWC)
Holey Land Wildlife Mgmt. Area (FL Fish & Wildlife Comm.)
River of Grass (SWFWMD)
SEMINOLE TRIBE (Big Cypress)
MICCOSUKEE TRIBE (Alligator Alley)
Miami Canal
BROWARD
MIAMI-DADE
SOUTHEAST DISTRICT
Francis S. Taylor Wildlife Mgmt. Area (FL Fish & Wildlife Comm.)
Kendall West

BIG CYPRESS REGION

REGIONAL GEOGRAPHY

Located largely within the Everglades West Coast Watershed, the Big Cypress Region of the Division of Recreation and Parks (DRP) Southwest District extends north to the Caloosahatchee River and south to the Ten Thousand Islands, encompassing all or portions of Collier, Lee and Hendry counties. This flat, low-lying landscape is a wetland mosaic of prairies, pine flatwoods and strand swamps, historically referred to as the "Big Cypress." The coastline from the mouth of the Caloosahatchee River south to Marco Island consists of linear barrier islands and various ephemeral and hardened inlets. South of Marco Island, the coastline is comprised of thousands of irregularly shaped and oriented mangrove islands.

Big Cypress Region State Parks:

- Fakahatchee Strand Preserve State Park
- Collier-Seminole State Park
- Delnor-Wiggins Pass State Park
- Lovers Key State Park
- Mound Key Archaeological State Park
- Koreshan Historic State Park
- Estero Bay Preserve State Park

These DRP units protect and preserve examples of natural domain and significant cultural resources along the far southwestern coastline and the interior of the Everglades West Coast Watershed. While these units are all identified as state parks, they are internally classified as either park, recreation area, preserve or special feature site based on the inherent content and scale of their natural and cultural resources. These agency classifications determine how the individual units are managed in terms of program area focus.

REGIONAL GEOLOGY, GEOMORPHOLOGY, TOPOGRAPHY, SOILS, MINERALS

Geology

The Tamiami Limestone Formation, exposed along the Tamiami Trail, underlies nearly all of Collier County and is approximately 6 million years old. The formation is capped by hard rocks under which are found sand, silts, clays, shell marls and shell-free greenish clay. This formation is also found in the southern and eastern parts of the county and is exposed at the surface.

Geologically, the region around the Big Cypress Swamp is known as a "karst," a term describing a land type based on carbonate rocks, chiefly limestone that occurs at or near the ground surface. The drainage sloughs, given prominence by the strand swamps rising from them, are karst features, which develop when limestone, formed as a sedimentary rock below mean sea level, is exposed in a region of high precipitation. Water containing carbon dioxide (and carbonic acid) seeps into openings in the soluble rock and dissolves some of the limestone. The strand swamps occupy these linear solution features in the surface rock. In general, the strands are functioning as shallow valleys in the flat, limestone substrate of the Big Cypress Swamp and the deeper sloughs function much like seasonally flowing streams within the valleys.

Other karst features include sinkholes such as Deep Lake in Big Cypress National Preserve near Copeland, which is 97 feet in depth. Deep sinkholes are relics of an ancient geologic period when sea levels were much lower. They signify possible infiltration to a sub-surface cavern system – essentially windows into local aquifer systems.

Work done by researchers from Utrecht University in the Netherlands has documented a peat layer overlying limestone six feet deep that has been dated to 5,200 years B.P. The core was extracted in the vicinity of the Big Cypress Bend Boardwalk where old-growth bald cypress occurs (Donders et al. 2005).

Geomorphology, Topography, and Soils

The Big Cypress Geomorphological Province captures all or portions of several state parks within the Big Cypress District. Erosion of the near surface Pliocene age Tamiami limestone is responsible for the formation of the shallow sloughs (locally known as strands). The gradual deposition of fine sands from seasonal floodwaters and the addition of organic sediments from early successional vegetation eventually support dense, closed-canopy forests of bald cypress, tropical hardwoods and royal palms. Fakahatchee Strand Preserve State Park contains some of the best and largest examples of these strand swamps.

Elevations in the Big Cypress Province range from sea level to 25 feet above mean sea level, with a median elevation of approximately 13 feet. The highest elevations occur in the north, gradually decreasing towards the coast. In general, the province is characterized as a flat karst plain with no significant topographical relief.

The province reaches the Gulf between Naples and the mouth of the Caloosahatchee River. Here the underlying limestone is covered by geologically recent Holocene sediments. These sediments include shelly sands that are a mixture of fine quartz and ground shell. These sands form low dunes like those historically found at Delnor-Wiggins Pass State Park that support typical beach dune vegetation. The sand ridge just landward of the beach dunes supports tropical versions of coastal strand and maritime hammock characterized by species such as sea grape and gumbo limbo. Deep, well-drained, siliclastic, sands also occur farther inland at Koreshan Historic State Park. Peat accumulations just inland from the linear Gulf front beaches support dense mangrove swamps. These mucky peat soils are widespread, extending far inland from the coast, evidenced by the nearly contiguous swath of mangrove swamp from the Ten Thousand Islands to Collier-Seminole and Fakahatchee Strand Preserve state parks.

Minerals

Mineral resources of economic value in this region of southern Florida include limestone, high silica sand, clay, phosphate rock, peat, oil and gas. Limestone was historically mined within Fakahatchee Strand Preserve State Park near Copeland by the Harmon Brothers Rock Company. The U.S. Army Corps of Engineers permit ended in 2003, requiring a sloping gradient along the northern lake to create a littoral zone for emergent vegetation as well as habitat for insects, small fish and amphibians. The 200 acres of property owned by the Harmon Brothers was acquired in 2004 as an addition to the state park.

REGIONAL HYDROLOGY

Hydrology within the heart of the Big Cypress Region is characterized by slow-moving sheet flow drainage. Large portions of this low, flat landscape are flooded during the rainy season which occurs July through September. Water slowly moves southwest and south through the strand swamps and interior

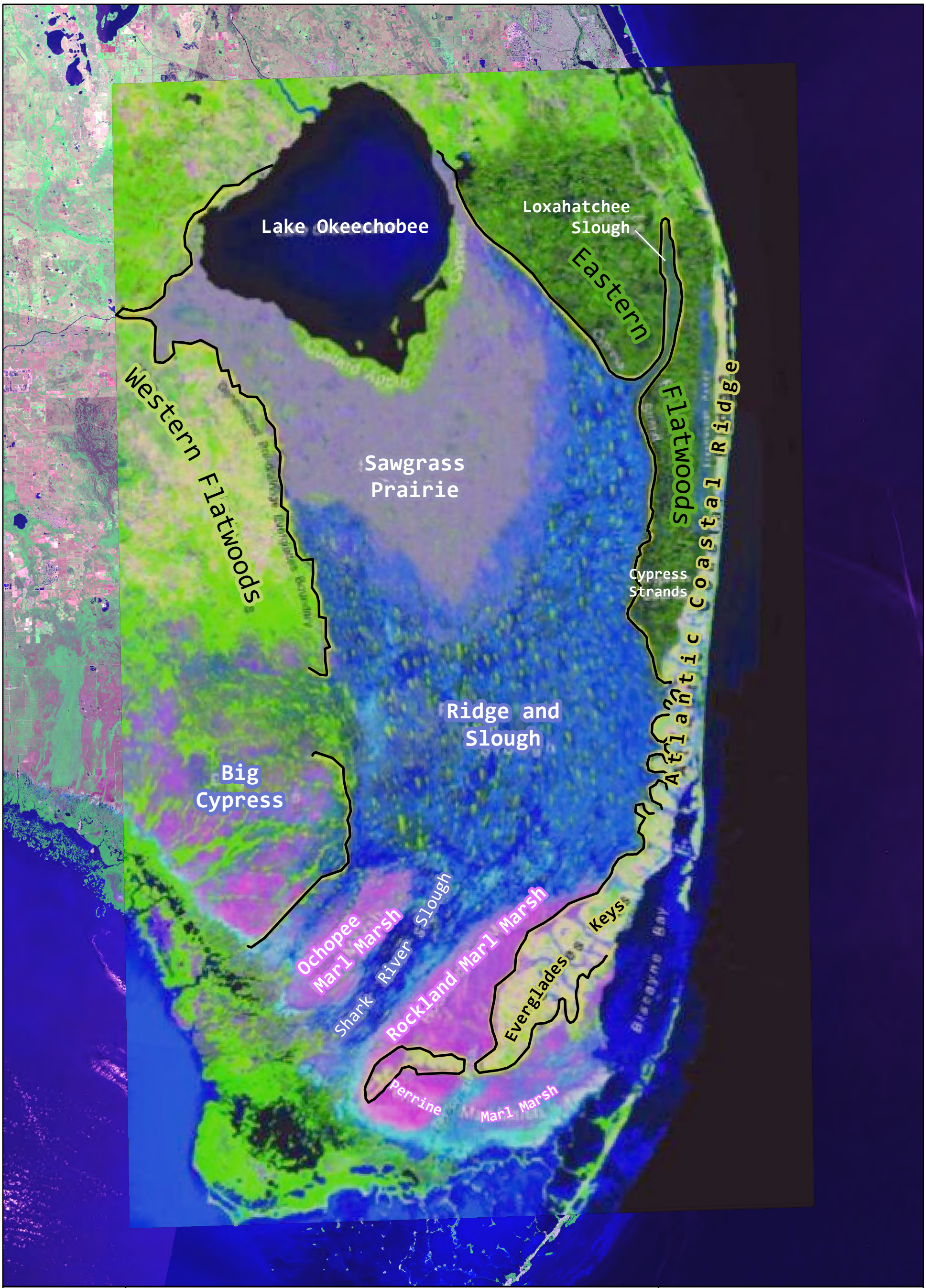
sloughs and across the flooded marl prairies. South of Marco Island, the ecosystem of the Ten Thousand Islands and Florida Bay has been shaped by this broad influx of freshwater.

Contextualization of hydrological conditions within the Big Cypress Region requires an understanding of the greater Everglades hydrology – past, present and future. Prior to the early 1900s, surface waters slowly drained south across the lower Florida peninsula through a wide and contiguous band of wetlands beginning with the Kissimmee River basin and extending south through Lake Okeechobee and the sawgrass prairies and sloughs of the Everglades. This massive conduit of wetlands historically influenced and largely included the marl prairies and strand swamps of the Big Cypress Region.

By the mid-twentieth century, nearly all the sawgrass prairie immediately south of Lake Okeechobee had been drained and converted to agricultural lands. A levee constructed along the southern shore of the lake held back much of the water that once continued south into the Everglades, instead diverting it west to the Gulf via a straightened and dredged Caloosahatchee River and east to the Atlantic Ocean via a dredged extension of the St. Lucie River.

An essential component of current Everglades restoration work includes restoring, to the extent feasible, the flow of freshwater south from Lake Okeechobee. Central to this endeavor is the means to move clean water through the 700,000-acre Everglades Agricultural Area immediately south of Lake Okeechobee that comprises 27 percent of the historic Everglades. The “Planned Everglades Flow” depicted in the map series below, considers water conveyance and water quality priorities identified in the Comprehensive Everglades Restoration Plan, such as the modification of existing canals and creation of the Everglades Agricultural Area Reservoir to mitigate agricultural nutrients and petrochemicals before sending water south to the Everglades and Florida Bay.

The following map series depicts the past, present and future hydrological conditions of greater south Florida, the latter representing restored hydrology projections based on current and future Everglades restoration work.



Everglades Extent Historic

N

Sources: Florida Department of Environmental Protection
This graphical representation is provided for informational purposes and should not be considered authoritative for navigational, engineering, legal, and other use.

Current Everglades Extent

Pre-1850 Everglades (estimated)

Spring_2023_Land

RGB

Red: Band_1

Green: Band_2

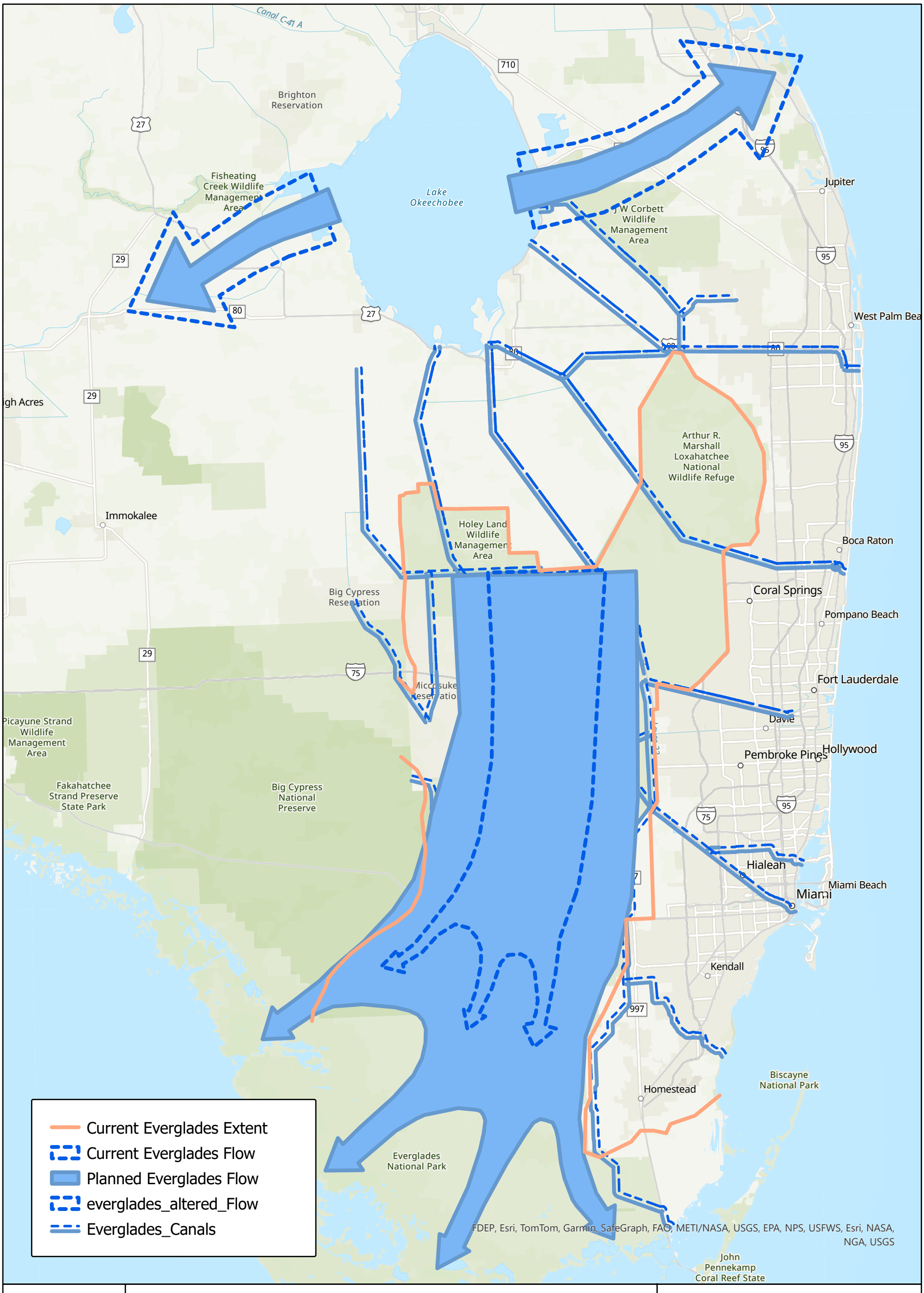
Blue: Band_3

Everglades Extent Historic and Current

N

Sources: Florida Department of Environmental Protection
This graphical representation is provided for informational purposes and should not be considered authoritative for navigational, engineering, legal, and other use.

Planned Everglades Flow



Sources: Florida Department of Environmental Protection
This graphical representation is provided for informational purposes and should not be considered authoritative for navigational, engineering, legal, and other use.

Alterations to this watery landscape began with the completion of the Tamiami Trail in 1928. Although a boon to the economic growth of the region, the road proved disastrous to the greater Everglades ecosystem as it effectively blocked the southward sheet flow of water towards the Gulf. Hydrology was further impacted in the mid-twentieth century by the construction of trams associated with the extraction of bald cypress and by the construction of canals, roads and ditches intended to improve lands for agriculture and residential development. Water that once slowly flowed across the entire landscape to all points along the coast was shunted to the Gulf via artificial surface channels. Starved of sheetflow from the north, much of the Ten Thousand Islands coastline has experienced an increase in salinity levels, leading to the reduction or loss of seagrass beds, which in turn impacts many estuarine species. Increased salinity combined with nutrient spikes from agricultural runoff have also triggered harmful algal blooms, reducing oxygen levels in the water and further impacting aquatic life.

Farther north, local drainage to the Gulf along the span of coastline from Marco Island to the mouth of the Caloosahatchee River is influenced by alterations to the natural landscape related to high-density development, including the creation of canals, ditches, artificial ponds and impervious surfaces.

REGIONAL SEA LEVEL RISE PROJECTIONS

Sea level rise scenario maps are in the process of being developed to predict the changes in coastal natural communities within the parks of the Big Cypress planning region.

REGIONAL RESOURCE-BASED RECREATIONAL THEMES

The Big Cypress Region state parks provide sensitive access into some of the most species-rich habitats in Florida. Janes Scenic Drive and extensive trail systems along the relict logging trams immerse visitors in the swamps and interior sloughs of Fakahatchee Strand. Whether hiking or biking, a program area focus on interpretation encourages visitors to recognize and appreciate the unique elements of the preserve's strand swamps and other wetland natural communities, as well as the area's human story. The terminus of the Florida National Scenic Trail is approximately 25 miles east of Fakahatchee Strand Preserve State Park in Big Cypress National Preserve.

The region's mangrove swamps and marshes are home to many estuarine species as well as large numbers of wading birds. Paddling trails along the Blackwater River at Collier-Seminole State Park and along the East River at Fakahatchee Strand Preserve State Park provide access into the mangroves, allowing visitors to experience the wildlife and vast presence of this coastal wilderness.

Moving north along the coastline, Delnor-Wiggins Pass and Lovers Key state parks provide access to the white sand beaches of the Gulf for swimming, snorkeling, paddling and surf fishing. Fishing is particularly popular along Wiggins Pass, a narrow inlet that connects the waters of the Gulf to the Cocohatchee River and its various embayments. Popular fishing spots at Lovers Key State Park include the Gulf beach and the backwater lagoons, particularly points along the Black Island Trail. The park also provides boating and paddling access to the estuarine waters of Estero Bay.

Estero Bay Preserve State Park and Mound Key Archaeological State Park are located nearby. The preserve serves to buffer and protect the rich estuarine waters of the Estero Bay Aquatic Preserve and offers access points for nature appreciation and fishing. Mound Key Archaeological is best accessed via

paddlecraft, offering visitors the opportunity to experience an impressive shell midden complex, believed to have been the ceremonial center for the Calusa people.

The Florida Circumnavigational Saltwater Paddling Trail, or the CT, spans 1,515 miles along Florida's coast from Pensacola to Fort Clinch (see map on following page). It is the longest designated national recreation trail in the country. The CT connects either directly or indirectly via hydrological conduits to all of the units of the Big Cypress Region. Estero Bay Preserve State Park, Mound Key Archaeological State Park, Lovers Key State Park, Delnor-Wiggins State Park and Koreshan Historic State Park all connect via the Estero Bay and River Paddling Trail. Delnor-Wiggins Pass, Lovers Key and Koreshan Historic also provide boat ramps for water-based recreational access. While Collier-Seminole State Park is technically not located along the CT, paddlers can access the park by meandering along the connected Blackwater River Paddling Trail through many acres of Florida wilderness. Navigating along the Faka Union River and West Pass Bay allows paddlers to access Fakahatchee Strand Preserve State Park.

Koreshan Historic State Park near the Village of Estero invites visitors to learn about this intriguing nineteenth century religious settlement founded by Dr. Cyrus R. Teed based on a commitment to communal living and a belief that the universe existed on the inside of the Earth.

The Bonita Estero Rail Trail (BERT) is an approximately 15-mile planned greenway spanning from northern Estero to Bonita Springs, a component of the broader 420-mile planned regional Florida Gulf Coast Trail. The northern extent of BERT will begin in Fort Myers near the John Yarborough Linear Park Trail, and travel south through Estero and Bonita Springs where it will join the Railhead Scrub Preserve in north Naples, potentially even connecting further south to the Paradise Coast Trail. Once developed, this segment of the Florida Gulf Coast Trail is planned to provide direct access to Koreshan Historic State Park. The Florida Gulf Coast Trail will also extend to Lovers Key State Park and Collier-Seminole State Park once the Lee County and Collier County segments are developed. Furthermore, as part of Estero Village's Open Space Master Plan, The Trust for Public Land, the Friends of BERT and the Village of Estero are planning for distinct trail hubs along the rail trail. Koreshan Historic State Park will be a site along BERT in the Eco-Historical hub and connect to other hubs, trail towns and parks nearby.

REGIONAL INTERPRETIVE THEMES

The region's interpretive themes are connected to the vast southwest Florida wetland landscape that supports a diverse suite of plants and animals, many of which are endemic. Alligators and Everglades mink swim through dark water sloughs, panthers prowl strand swamps and white sand beaches invite visitors to clear Gulf waters. Listed below is the central park theme for each regional park, highlighting its most significant natural or cultural features:

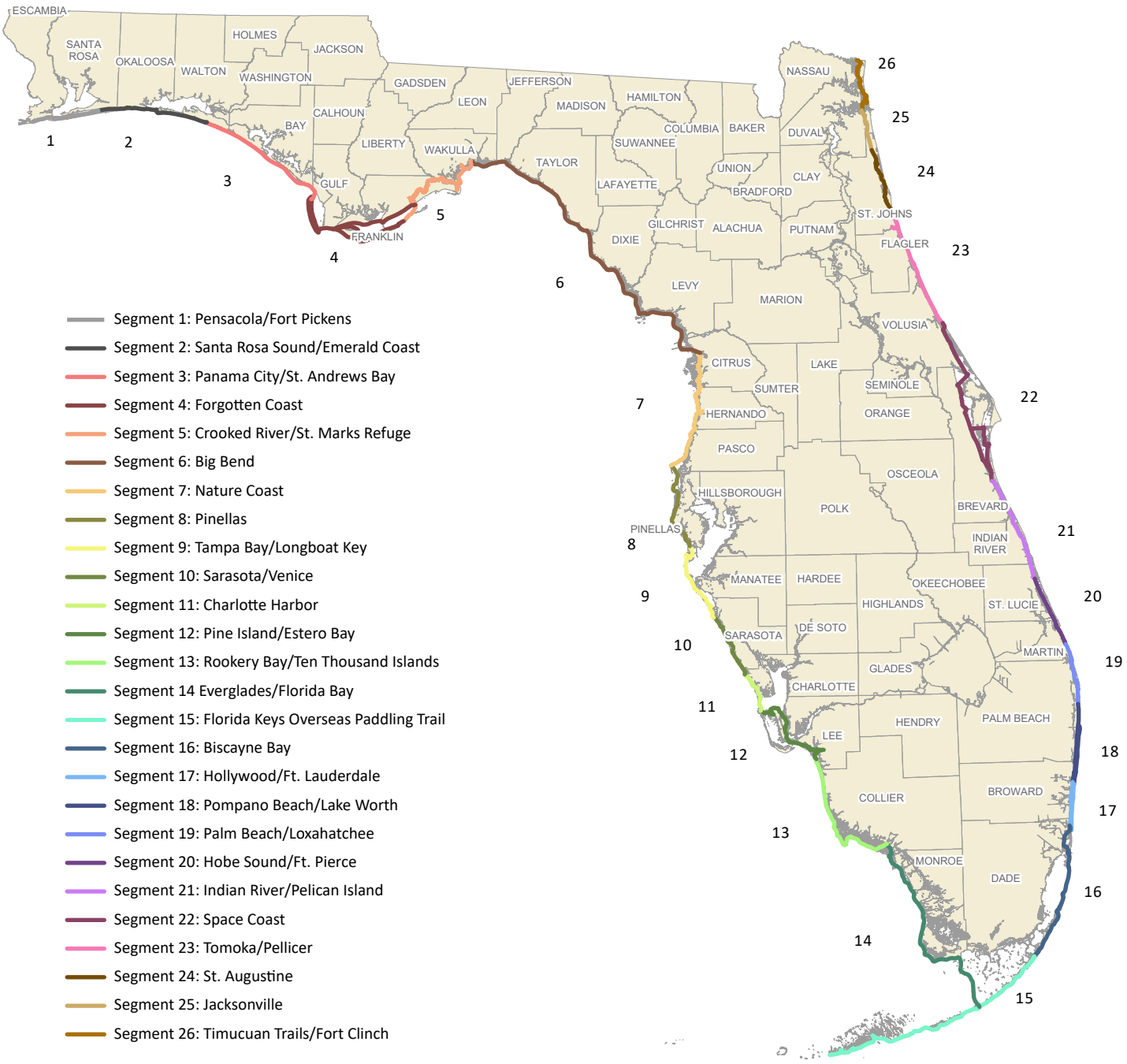
Collier-Seminole State Park

Nestled within one of the largest mangrove swamps in the world, Collier-Seminole State Park shares stories of preservation and progress within a highly biodiverse landscape.

Delnor-Wiggins Pass State Park

Where the Cocohatchee River empties into Wiggins Pass, Delnor-Wiggins State Park stretches across a mile of relatively undeveloped white sand beach and coastal habitats, providing one of the few protected sanctuaries for wildlife and seashore activities in the region.

Florida Circumnavigational Saltwater Paddling Trail



- Segment 1: Pensacola/Fort Pickens
- Segment 2: Santa Rosa Sound/Emerald Coast
- Segment 3: Panama City/St. Andrews Bay
- Segment 4: Forgotten Coast
- Segment 5: Crooked River/St. Marks Refuge
- Segment 6: Big Bend
- Segment 7: Nature Coast
- Segment 8: Pinellas
- Segment 9: Tampa Bay/Longboat Key
- Segment 10: Sarasota/Venice
- Segment 11: Charlotte Harbor
- Segment 12: Pine Island/Estero Bay
- Segment 13: Rookery Bay/Ten Thousand Islands
- Segment 14 Everglades/Florida Bay
- Segment 15: Florida Keys Overseas Paddling Trail
- Segment 16: Biscayne Bay
- Segment 17: Hollywood/Ft. Lauderdale
- Segment 18: Pompano Beach/Lake Worth
- Segment 19: Palm Beach/Loxahatchee
- Segment 20: Hobe Sound/Ft. Pierce
- Segment 21: Indian River/Pelican Island
- Segment 22: Space Coast
- Segment 23: Tomoka/Pellicer
- Segment 24: St. Augustine
- Segment 25: Jacksonville
- Segment 26: Timucuan Trails/Fort Clinch

- Drinking Water
- Camping
- Kayak Launch
- Shower Facility
- Restroom
- Restaurant
- Grocery Store
- Point of Interest
- Hotel/Motel

N W E S

Disclaimer: This guide is intended as an aid to navigation only. A Global Positioning System (GPS) unit is required and persons are encouraged to supplement these maps with NOAA charts or other maps.
Updated: 11/2022

Estero Bay Preserve State Park

Home to wetlands and wildlands, the serene coastal waters and onshore habitats of Estero Bay Preserve State Park hug the edges of Florida's first aquatic preserve, creating a conjoined refuge amidst the rapid development of southwest Florida.

Fakahatchee Strand Preserve State Park

Known as the “Amazon of North America,” Fakahatchee Strand Preserve State Park is the largest subtropical strand swamp in the world, protecting a lush wilderness critical to the survival of rare and endangered plants and animals.

Koreshan Historic State Park

Cradled by majestic oaks along the banks of the Estero River, the historic buildings and gardens of Koreshan Historic State Park are a testament to the industrious lives and unique belief systems of early twentieth century pioneers of South Florida.

Lovers Key State Park

Where warm canals embrace sugar sand beaches, wildlife thrive in the meandering waterways and beautiful shoreline of Lovers Key State Park.

Mound Key Archaeological State Park

Framed in forests of mangrove trees, the shell mounds and ridges of Mound Key Archaeological State Park rise more than 30 feet above the waters of Estero Bay – an enduring sign of the people who inhabited this coastal landscape long before modern settlement.