

Grassy Waters Preserve Visitor Guide



Welcome

Grassy Waters Preserve is a pristine Everglades habitat spanning 15,000 acres, an area roughly the size of Manhattan. Not only is the Preserve a refuge for unique plants and animals, it also serves as the freshwater supply for the residents of West Palm Beach, Palm Beach, and South Palm Beach.

Unlike most of Florida's wetland ecosystems, the Grassy Waters region has been minimally impacted by human activities and development thanks to its role as a regional water supply. Henry Flagler purchased the sprawling wetland area in 1904 to bolster the drinking water supply for his Palm Beach resorts and the growing community of West Palm Beach.

Today, the Department of Public Utilities Watershed Management Division ensures the continued beauty of the Preserve's wetlands by preventing the spread of invasive exotic species and ensuring best management practices in water quality and conservation.



The Grassy Waters wetland ecosystem is a mosaic of freshwater marshes, cypress swamps, and forested hammocks. Commonly sighted species include alligators, white ibis, great blue herons, and endangered Everglades snail kites. You might even catch a glimpse of a river otter, bobcat, wild hog, roseate spoonbill, or white-tailed deer!

The Preserve can be explored along 25 miles of trails for hiking and biking, kid-friendly walkways, and ADA accessible paths. Grassy Waters is dedicated to environmental education, providing K-12 students a living classroom to learn about the Everglades and the importance of wetlands. Grassy Waters education staff also offer guided hiking, biking, and paddling excursions to the public.

We invite you to explore our diverse habitats and their varied highlights throughout the year. During your visit to Grassy Waters Preserve, we hope to share a love and appreciation for the one-of-a-kind place we call the Everglades. We need your help, too! To protect and preserve the wildlife, natural areas, and the quality of our water supply, please follow the Preserve's rules and advisories found on page 2.

Choose Your Grassy Waters Adventure Today



Hiking

There are 6 different trails across Grassy Waters Preserve that showcase a variety of habitats. Popular sightings include wading birds and alligators.



Biking

Four of our trails, including our longest, Owahee, can be biked. Hop on your bike and enjoy the scenery, but make sure to bring your reusable water bottle along for the ride.



Paddling

Head to Gator Lake for the Preserve's only self-launch location for canoes, kayaks, or non-gas powered watercraft.



Bird Watching

The Preserve is home and holiday for many bird species throughout the year. Our specialties include herons, egrets, Everglades snail kites, bald eagles, and warblers.



Native Plant Butterfly Garden

Our native garden in the parking lot of the Cypress Boardwalk goes beyond just butterflies; it also provides habitat for other pollinators like bees and dragonflies, as well as small animals like marsh rabbits and skinks.



Fishing

Off of the Eagle Loop is our ADA accessible fishing pier that overlooks Gator Lake. This location is the only place within the preserve permitted for catch and release fishing with FWC licensing.



School & Summer Camp Programs

Annually, Grassy Waters reaches over 2,800 local students through our school and summer camp groups. By bringing students out to the Preserve, we introduce them to the Everglades and encourage a lifetime of stewardship.



Kid's Area

At our Nature Center we feature a tactile play area that encourages education and fun for kids with different abilities and learning styles. If your child has ever wanted to touch a river otter's fur or hold an apple snail shell, come see us to give it a try!



Guided Public Programs

Have a free weekend? Join us on one of our public programs! We lead guided group activities like kayaking, canoeing, biking, hiking, crafting, and more. Sign up by stopping in or calling the Nature Center to reserve your family's spot in our programs.



Picnicking

In the mood for a picnic? Bring your lunch to our Hog Hammock or Apoxee Trails. Our Cypress Boardwalk features ADA accessible tables. Remember to properly dispose of waste in our trash and recycling bins.



Volunteering Opportunities

Grassy Waters Preserve is always in need of volunteers who are interested in learning more about our watershed, restoration, and educational opportunities on our 15,000 acres. The Preserve also provides high school and college internships throughout the year.



Exhibits

Inside our Nature Center we feature rotating exhibits on the history of the Everglades from private collections and museums. Previous exhibitions have included the indigenous people of Florida and the ancient mammals of the state.



Inside

- 2 Wetlands: More Than Just Wet Land
- 3 Journey of Our Water
- 4 Invaders of the Everglades
- 5 Kids Corner
- 6 Map: Trails at a Glance
- 7 V.I.P. Status: Native Plants
- 8 Top 10 Ways to Help the Glades

Where to Find Us

facebook.com/GrassyWatersPreserve

wpb.org/GrassyWaters

8264 Northlake Blvd.
West Palm Beach, FL 33412

(561)-804-4985

Main Entrance Hours

Monday - Saturday 8:00 a.m. - 4:30 p.m.

Sunday 8:30 a.m. - 5:00 p.m.

Closed all government holidays

Rules & Recommendations



If inclement weather occurs, seek shelter immediately. Remember, when thunder roars, go indoors.



Drink water to stay hydrated. Make sure you bring your reusable water bottles; we have water fountains and bottle refill stations at the Cypress Boardwalk.



Protect your skin. We recommend using sun protection like sun block, sunglasses, and hats while exploring Grassy Waters.



Protect yourself and your preserve! Place trash and recycling into proper bins. Grassy Waters Preserve supplies the drinking water for West Palm Beach and surrounding communities. Help us keep our water clean!



No pets allowed. Bringing pets is not permitted at Grassy Waters Preserve as it puts you and your pet in danger. Keep your furry friends safe by keeping them at home.



No hunting is permitted at Grassy Waters. Catch and release fishing is only permitted at Gator Lake with FWC licensing.



Do not remove anything. Our native plants sprout fruits and flowers that feed our wildlife. To ensure they have all the resources they need to survive, please do not pick any of our plants.

Wildlife Etiquette & Safety



Give animals space

Most of our wildlife is shy and will leave when approached.

Do not feed wildlife

This includes squirrels, alligators, river otters, white-tailed deer, bobcats, and more.

Animals that are fed lose their fear of people, making them nuisance animals that approach the public. When this happens, the animals become a danger to humans and then must be removed and often killed.

Alligator Advisories

During alligator mating and nesting seasons, use extra caution as they are more territorial. It is illegal under Florida law to feed or harass alligators, as they become particularly dangerous to humans. Remember, a fed gator is a dead gator.

Wetlands: More Than Just Wet Land

As a part of the Everglades, Grassy Waters Preserve protects 23 square miles of wetland ecosystems. While being wet most of the year may sound soggy, wetlands have many important functions.

Here at Grassy Waters, the wetlands perform services for animals, people, and the greater environment. Wetlands provide critical habitat, and are often called nurseries for their role as breeding, nesting, and rearing grounds for all kinds of wildlife. These ecosystems are typically high in biodiversity when it comes to wildlife because they have many types of resources to support a wide variety of species.

When it comes to people, wetlands act as critical flood-control during storms by absorbing runoff, or

excess water, until it can naturally drain. Wetlands can also hold water like a sponge when other water bodies have dried up, continuing to provide access to water for animals and people alike.

Across the state of Florida, wetlands are important recharge zones for underground aquifers that provide many residents with the water they depend on. Locally, Grassy Waters Preserve is a wetland that directly supplies the drinking water for West Palm Beach and surrounding communities.

Within the Preserve are two unique wetland habitats: the cypress swamp and the marsh. As types of wetlands these two habitats share a lot in common, but they also shine in several of their own, respective ways.

Cypress Swamp



The cypress swamp is abundant with resources that help plants and animals survive. Many types of vertebrates, which are animals with backbones, can be found in the swamp. These include types of mammals, reptiles, amphibians, and birds.

Animals often found in this habitat are North American river otters, green anoles, banded water snakes, and various species of woodpeckers.

The biodiversity within the Preserve's swamps however, goes beyond just types of animals. A wide variety of plants can be found throughout them, all adapted in unique ways to survive in wetland ecosystems.



What are those?

Those are cypress knees! Cypress knees are the roots of cypress trees. Since these trees love to live in water, scientists have found that their younger knees help their roots access air like a snorkel.

One of the common plants in the Grassy Waters swamp also distinguishes the type of swamp we showcase: cypress trees. The trees have special buttress trunks that help with stability in the soft peat soil of the swamp. Additionally, cypress trees secrete an oil that coats their bark. The trees developed this adaptation over millions of year to protect their bark from rotting while submerged under water. When looking off of the Preserve's trails, the oil appears as an iridescent film on top of the water.

Due to their high diversity, many swamp habitats have been found to support plants with medicinal properties, and the Preserve's swamp is no exception.

Lemon bacopa, an aquatic plant, is found throughout the Preserve, and was historically used by indigenous people in the area, including Seminole tribes. The plant's leaves, when brewed into a tea, can ease sore throats, coughs, and colds, similar to how we use cough drops today.

Swamps also provide ecosystem services to humans in addition to providing food, habitat, and space for plants and animals. Trees and plants found within these habitats act as carbon sinks, meaning they naturally store large amounts of carbon. They also continue to sequester, or absorb, more carbon every day, which helps clean the air around us while also doing its part to mitigate climate change.

vs

Marsh



The freshwater marsh habitats found at Grassy Waters Preserve host their fair share of wetland species, both big and small.

Marshes serve a key role in providing resources for migratory and resident birds. Food, shelter, and space are abundant for birds at the Preserve, and because of this they are popular resting places for migratory species. Marsh habitats are also ideal nesting conditions for many wading birds like herons and egrets, and niche species like bald eagles and endangered snail kites.

In addition to wading birds, other common wildlife that make marshes a home are muskrats, turtles, frogs, and alligators, all of which are found at Grassy Waters.

Similar to specialized swamp species, the marsh has well adapted plant species, too. Since Grassy Waters maintains pristine water, species adapted to living in low nutrient environments are common.

Sawgrass does best where the water is already clean, so when sawgrass begins to be replaced by other species of grasses like cattails (which thrive in high nutrient waters), it can indicate a change in water quality.

But, this isn't always a bad thing. In pockets throughout Grassy Waters there are areas with cattails and no sawgrass. Since it is only a pocket, we can infer that the high nutrients are localized to one spot.

For example, near rookeries, which are spaces where birds flock together to nest and sleep, there are more cattails because the water there has high nutrients from all of the bird droppings. If the entire Preserve were replaced by cattails, that would indicate changes to water quality on a larger scale.

Sawgrass and other wetland plants in the Preserve's marshes serve crucial roles beyond providing habitat. The plants filter and store water within the wetland providing a reliable water supply for residents of West Palm Beach and surrounding areas.



What are those?

Those are clusters of apple snail eggs! You can tell the difference between the native and invasive species of apple snails by the color and size of the eggs. The native snail eggs are white and pearl-like, whereas the invasive exotic eggs are smaller and pink.

Journey of Our Water

When you turn on your sink, shower, or flush your toilet, do you ever wonder where the water comes from? In the City of West Palm Beach, Palm Beach, and South Palm Beach, your water's journey begins as rain falling into Grassy Waters Preserve.

Following gravity, the water then flows along the M-canal 16 miles downtown to Lake Mangonia and Clear Lake. Once there, your water is finally pumped into the water treatment plant to be cleaned and sanitized before

Freshwater enters Grassy Waters exclusively through rainfall. Through rainfall the Preserve can provide approximately 25 billion gallons per year.



1 Freshwater enters Grassy Waters exclusively through rainfall. Through rainfall the Preserve can provide approximately 25 billion gallons per year.

2 The marshes and swamps of Grassy Waters Preserve catch and store the water. While at the Preserve, the water is essential for our unique Everglades habitats for threatened and endangered wetland animals and plants.

Water stored on a wetland like Grassy Waters has the added benefit of being filtered by the plants. Additionally, it allows water to slowly trickle through our limestone and recharge aquifers, or underground lakes, which in turn provides water for nearby communities pumping up through well-based water systems.

The water makes its from the Preserve into the M-Canal, which flows east toward the twin lakes, Lake Mangonia and Clear Lake. Since Grassy Waters Preserve is at a higher elevation than the canal, the water flows into the canal by gravity.



3 As the water continues down the M-Canal, it passes through Control Structure 4, which can have the gates open or closed depending on the water levels of the lakes.

When the gates are closed the control structure works like a dam, and when the gates are open, water moves by gravity allowing 25-35 million gallons a day to pass through. The control structure is usually open to replenish the lakes since they lose 1/3 inch per day due to evaporation and seepage.

Once the water passes through Control Structure 4, the M-canal carries it to Lake Mangonia, which then flows into Clear Lake by a man-made waterway constructed in 1925. At approximately 1000 acres and an average depth of 12 feet, this twin lake system serves as a water storage reservoir, like Grassy Waters Preserve.



4 Water is pumped out of Clear Lake into the water treatment plant. In 1894, Henry Flagler originally pumped water from this site to provide water for his hotel the Royal Poinciana on the island of Palm Beach. Updated over the years, the plant now produces 28-36 million gallons of treated water per day.

The water treatment process begins as water passes through a screen to remove large debris. Next, chemicals are used to settle out small impurities, while remaining solids are filtered out through giant carbon and sand based filters. The water then is disinfected through brand new UV technology and other methods resulting in filtered tap water. Throughout this treatment stage and the entire water's journey, the water is tested over 2,500 times per month on a wide variety of parameters to ensure that clean, safe drinking water is sent to your tap.

making its way to your tap.

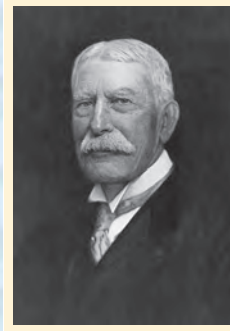
This surficial water system is unique as only ten percent of all Florida cities get their water this way.

West Palm Beach's water system was initially purchased and designed by Henry Flagler in the early 1900s. The city purchased the water treatment plant, lakes, and Grassy Waters Preserve from his company in the 1950s.

Today, the Department of Public Utilities continues to maintain and improve the original water system to serve over 130,000 citizens with clean, reliable, and economical drinking water.



Henry Flagler (1830 - 1913)



First earning his fortune alongside John D. Rockefeller in oil, Henry Flagler later invested in the development of Florida with the Florida East Coast Railway. The railway and his luxury hotels grew the West Palm Beach area in the early 1900s.

The History of WPB Water Supply

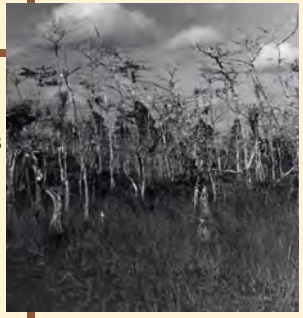
1892 Henry Flagler began construction of his railroad to connect Daytona Beach to South Florida



1894 The City of West Palm Beach was established, and Flagler's water company completes the first water treatment plant by getting water from Clear Lake

1893 Flagler purchased land, including Clear Lake and nearby wetlands to provide water for the growing community

1904 Flagler's company purchased approximately 17,300 acres of the Loxahatchee Slough, most of which becomes Grassy Waters Preserve



1925 - 1950 Construction completed to connect Clear Lake and Lake Mangonia. M-canal dredged to link Grassy Waters Preserve to the lakes, providing more water to growing West Palm Beach



1955 The City of West Palm Beach purchased the water system from Flagler's company



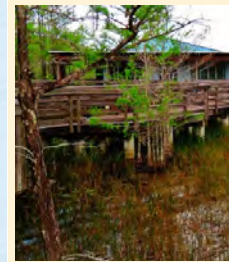
1964 Florida state legislature designated Grassy Waters as a protected Water Catchment Area for drinking water

1960 M-canal extended to Lake Okeechobee to serve as a backup water supply

1981 Grassy Waters closed to the public due to damage from recreational uses



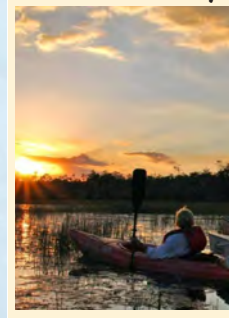
1995 Grassy Waters Preserve reopened to the public for environmental education purposes with the Nature Center built along the Cypress Boardwalk Trail



2005 Restoration began on 165 acres of the Kowchobe Restoration Area



Present Day Grassy Waters now serves 130,000+ people in West Palm Beach and nearby areas with water. It also provides 25 miles of trails. Hiking, biking and paddling programs are available for the public and school groups



Wanted: Invaders of the Everglades

Animals, plants, and other species originally from faraway islands and other continents have invaded Florida. Exotic species are released into the wild by pet owners, escaped from captivity, hitchhiked on cargo ships, and distributed as seeds from gardens, wind, and even wildlife.

However, not all exotic animals and plants become a problem in natural areas. It is when they have the ability to alter the natural habitat that they are labeled as invasive.

Animals and plants that are fast at reproducing and eat a generalist diet have a higher potential to become invasive. Once they become established,

they can disrupt an entire ecosystem or food web.

Invasive plants, like Brazilian pepper, grow so tightly together that they eliminate any resources and space for native plants, while changing the habitat in a way that is no longer suitable for native animals. Invasive animals, like pythons, outcompete with native animals for food, shelter, or nesting space, and often prey upon them.

South Florida struggles with invasives more than some other states because of its ideal climate: warm and wet. With these perfect conditions, there are more than 83 different species of plant invaders and 120 animal invaders.

Due to the ecological damage invasives cause, parks, preserves, and other green spaces have to manage invasive populations, which is expensive and time consuming. The United States spends approximately \$137 billion annually on management.

The invasives at Grassy Waters Preserve are controlled by the Watershed Management Division. Some of our most damaging animals and plants include, but are not limited to: Eurasian milfoil, melaleuca, hydrilla, tilapia, Cuban tree frogs, island apple snails and the ones listed below.

You can report invasive exotic sightings to FWC: call 888-IVE-GOT1 or download the IveGot1 app.



Basiliscus vittatus

Alias: Brown Basilisk, Jesus Lizard

Identifying Characteristics: Brown with yellow to green stripes along sides. Males have crest on top of head. Average 2ft long. Ability to rise up on back legs to run quickly, even across water.

Crimes Committed: Predation of bird eggs, destruction of garden plants and flowers, theft of food and habitat from native species.

Escape Route: Released by pet owners

Known Hideouts: Along canal banks and bordering lakes and wetlands.



Sus scrofa

Alias: Wild hog, Wild Boar, Feral Pig

Identifying Characteristics: Average 200+ lbs, 5ft long, 3ft tall. Abundant wiry hair, visible tusks

Crimes Committed: Destruction of native vegetation while rooting for food. Transmission of diseases to livestock and wildlife

Escape Route: Released by Spanish explorers in the 1500s.

Known Hideouts: Throughout Florida. Prefer dense brush with water easily available.



Lygodium microphyllum

Alias: Old World Climbing Fern

Identifying Characteristics: Fern that grows like a climbing vine. Reproduces by spores, but can sprout from every leaf.

Crimes Committed: Killing trees by covering them and depriving them of sunlight. Being a highly flammable "fire ladder" allowing wildfire to climb into the canopy. Entangling wildlife.

Escape Route: Jailbreak from plant nurseries.

Known Hideouts: Will take over any tropical forest habitat.

What's Going On This Season?

Rainy Season (May - October)

Seventy percent of South Florida's rainfall occurs during the rainy season from May to October. During this time, water levels throughout the Preserve will be higher, and because of this the plants are growing and appear more green. Cypress trees throughout the swamp will have their leaves (needles) while other plant species will begin to flower and grow fruits.



May

The Florida butterfly orchid & blue flag iris will begin to bloom this month through August. Look for them off of the Cypress Boardwalk trail at our main entrance.

June

Freshwater turtles, like the yellow-bellied slider, will begin digging nests on land. Use extra caution while driving to avoid collisions with turtles crossing roads.



July

Native pond apples, cocoplums, and muscadine grapes are flowering and seeding during this time period. These plants are favorites for several animals found at Grassy Waters Preserve including raccoons, squirrels, and birds.

August

Alligators hatchlings will emerge and begin to appear within the Preserve.



September

Do you consider yourself a fellow bird nerd? This month kicks off the warbler migration where you can spot many species starting now through April.

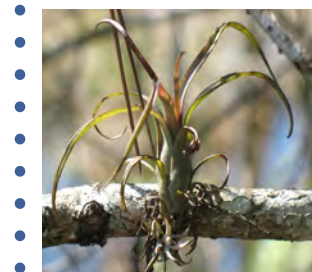
October

Bald eagle nesting season begins. Stop by our Nature Center to ask staff for information on the location and monitoring updates on the national bird.



Dry Season (November - April)

As the season shifts from rainy to dry, we will receive less rain and see lower water levels as a result. Our cypress trees will lose their needles and show off their bare branches. During this time our year-round bird residents will be nesting, and our migratory species will be stopping through.



November

Now is the time to look for air plants, squirrel dreys (nests), and other wildlife normally hidden by cypress tree needles. Song birds begin migrating to Florida to stay warm during the winter months. Sunset and moonlight canoe programs are offered now through March due to shorter days.

December

Many wading birds, like herons and egrets, begin nesting. Some will continue to nest through the end of the summer.



January

Alligators bask out of the water during the cold, sunny days. Visit during the winter months for a better chance of seeing alligators.

February

Birding galore! The endangered snail kites begin nesting now through June. This is the best time to see the kites since they aggregate together to nest and you can often hear the mates talking to one another. Swallow-tailed kites also migrate to Florida to nest now through the month of September.



March

Baby river otters begin leaving the den. Practice extra caution while driving to avoid collisions with otters crossing roads. Apple snail egg laying begins, going through October. Look for the white eggs (native) and pink eggs (exotic) along the marsh grasses and the bases of cypress trees.

April

Alligator breeding season begins, with courtship occurring in April. Breeding will last through June. Exercise extra caution around alligators now as males are especially territorial during this time period.





Due to habitat loss, Everglades snail kites are an endangered species. This means there are not very many snail kites left.

Banded water snakes are nonvenomous and use expert camouflage to blend into their surroundings.

River otters are adapted to be great swimmers. Their first swimming lesson is at two months old.

Apple snails have both a lung and gill to breathe on land or under water.

Did you know?
You can stop by the Nature Center and borrow a pair of binoculars before your hike! We have pairs for all ages and they can help you spot the animals that call Grassy Waters home!

You Can Be A Scientist!

You can be a scientist at Grassy Waters! When hiking make sure you are calm and quiet to see more animals. Write down or draw what you observed and learned in the boxes below. When your hike is over, share and compare what you saw with family, friends, and your fellow scientists!

My favorite plant I saw was...

My favorite animal I saw was...

Let your imagination go wild!

Everglades Animal Word Search

F	E	W	M	O	S	Q	U	I	T	O	F	I	S	H
V	W	J	Q	Q	N	F	T	D	X	G	X	B	J	F
E	C	R	A	Y	F	I	S	H	I	C	T	I	H	I
Z	R	G	L	Y	C	S	Y	Z	W	W	T	R	P	Z
D	R	W	X	L	G	H	A	Z	O	H	G	D	I	A
U	A	D	S	I	M	U	S	K	R	A	T	K	M	M
I	N	V	E	R	T	E	B	R	A	T	E	B	A	P
B	G	J	O	W	N	V	G	E	W	J	X	T	M	H
P	S	V	E	E	D	A	L	U	J	F	P	G	M	I
Q	X	N	J	P	X	I	U	H	F	M	G	S	A	B
E	B	D	Q	K	T	A	F	J	H	A	R	B	L	I
L	A	E	B	P	A	L	L	I	G	A	T	O	R	A
F	S	G	E	U	Z	N	R	N	Z	A	Y	U	V	N
S	Y	R	L	U	S	I	G	M	S	Q	J	O	V	B
I	X	P	O	E	C	O	K	I	H	V	P	F	J	Y

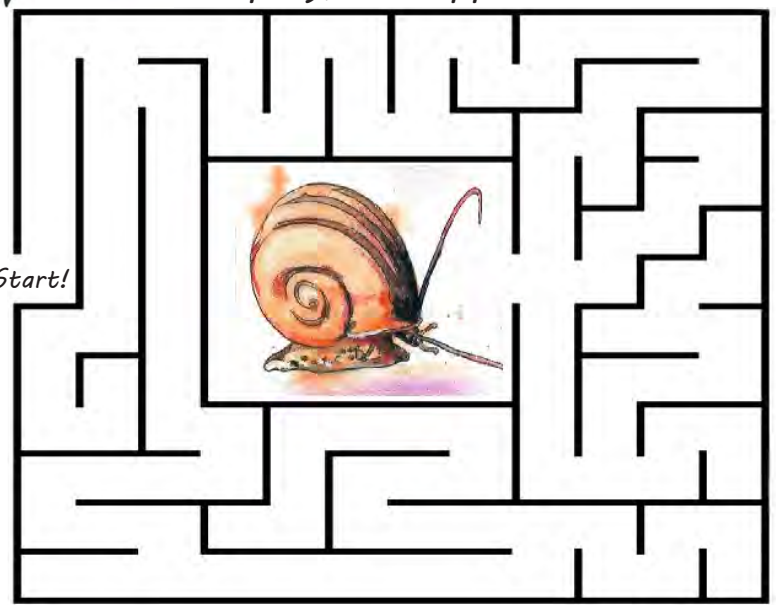
- MAMMAL
- BIRD
- REPTILE
- AMPHIBIAN
- FISH
- INVERTEBRATE
- ALLIGATOR
- CRAYFISH
- MUSKRAT
- MOSQUITOFISH
- NEWT
- EAGLE



Snail kites have red eyes that act as sunglasses to spot the apple snails.

They only eat apple snails for breakfast, lunch, and dinner!

Help the snail kite find its prey, the apple snail.



Grassy Waters Preserve at a Glance

Hog Hammock Trail (4.23 mi)

Eagle Trail (0.5 mi)

Cypress Boardwalk (1.0 mi)

Owahee Trail (16.6 mi)

SWA Trails (3.95 mi)

Apoxee Trail (2.5 mi)

Parking 

Info Kiosk 

Restroom 

Shelter 

Get to Know Our Trails

Pedestrian Only

Cypress Boardwalk

Mon-Sat
8:00a.m. - 4:30p.m.
Sun
8:30a.m. - 5:00p.m.

As the main entrance for the Preserve, the Cypress Boardwalk is named after the cypress trees that shade most of its path. This trail also features Grassy Waters Preserve's Nature Center.

Eagle Trail:

7:00a.m. - 5:30p.m.

The Eagle Trail gets its name from the Eagle Scout groups that began the trail and have helped to make our catch-and-release fishing pier ADA accessible.

Hike or Bike

Hog Hammock:

7:00a.m. - 5:30p.m.

The trail explores the Preserve's drier hammock habitat that is home to wildlife like bobcats and invasive wild hogs. Evidence of the hogs is seen with their uprooting of native plants that they enjoy munching on.

Owahee Trail:

Dawn - Dusk

The longest trail, the Owahee Trail is recommended for biking where wading birds and large alligators are common sights.

SWA Trails:

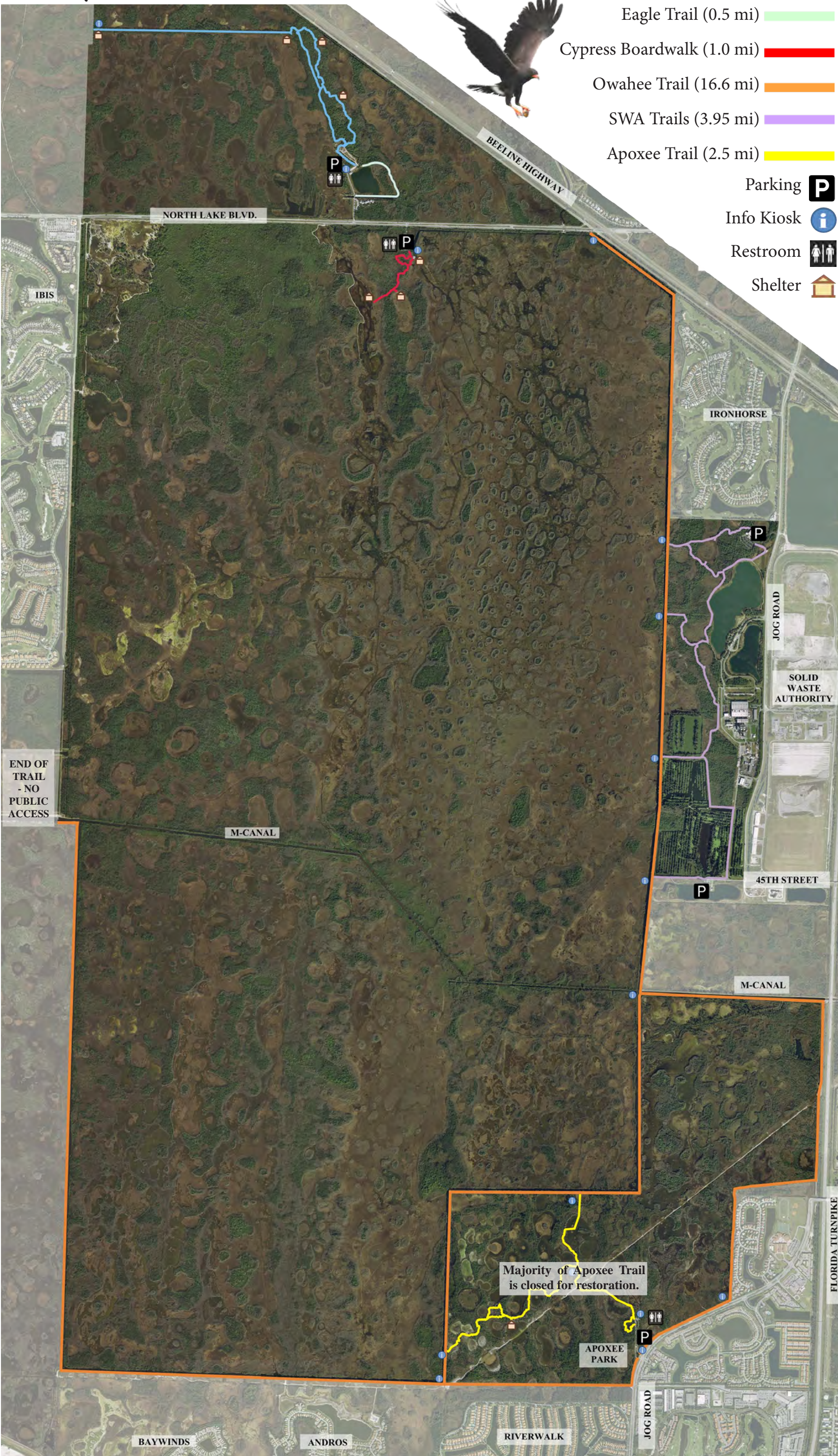
Dawn - Dusk

Although not a part of Grassy Waters Preserve, the Solid Waste Authority (SWA) Trails connect to our Owahee Trail at four locations. Because of this, we feature them on our maps to help people navigate and choose where to park.

Apoxee Trail:

7:00a.m. - 6:00p.m.

Grassy Waters Preserve's Apoxee Trail was inspired by the phrase "beyond tomorrow" in the Seminole language. The phrase is symbolic for providing reliable drinking water for today's and tomorrow's generations.



Grassy Waters Conservancy: Fostering and Funding the Preserve's Mission

The Grassy Waters Conservancy is a nonprofit, volunteer organization that since 2014 has sought to bolster environmental education programming, conservation, research, and outdoor activities at Grassy Waters Preserve. The Conservancy raises funds through memberships, donations, grants, and partnership initiatives.

Throughout the year, Grassy Waters Conservancy offers photo walks and photography classes. In February, the Conservancy showcases Grassy Waters Preserve's beauty through its annual photography contest, which in 2019 was in partnership with the Armory Arts Center.

The photography contest raises funds,

promotes visitation, and introduces new audiences to the charm of Grassy Waters by exhibiting the winning photos in various West Palm Beach venues.

During the school year, the Conservancy frequently provides bus funding to West Palm Beach schools. By bringing local students to Grassy Waters to experience the Everglades, they also learn about their watershed and natural history through participation in the field trips.

In the summer season, Grassy Waters Conservancy further fosters their mission to augment education. They provide program supplies like water bottle or life vests for students. With a grant awarded by the

Kate Svitek Foundation, they also fund environmental education internship positions. Under the mentorship of the Preserve's staff, these college interns offer educational outreach programs and field experiences to West Palm Beach community centers.

Program interns also take on projects that create educational materials to be used by the camps and schools visiting Grassy Waters year round. Past projects have included self-guided activities for all grades, creating a Grassy Waters dichotomous key, and this Visitor Guide!

To learn more about the Grassy Waters Conservancy or to make a donation, please visit grassywaters.org



Grassy Waters: Accessible For All

We take pride in making the beauty of Grassy Waters Preserve available to everyone and are always working to improve our accessibility.

We have two all terrain wheelchairs on site for guests, that are available for use free of charge. They are located at our Nature Center along the Cypress Boardwalk Trail. The chairs may be used on other trails within the Preserve.

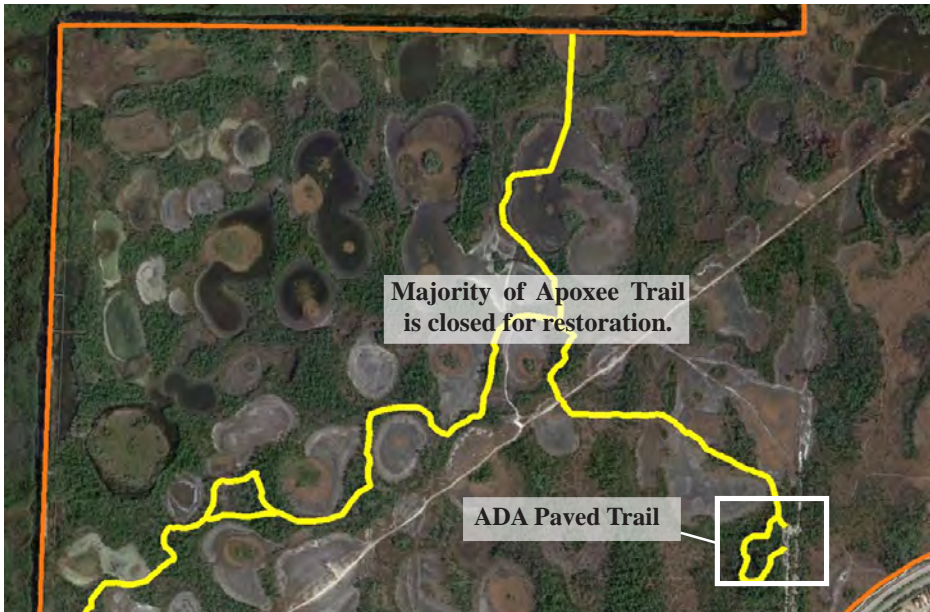
Showcasing our cypress swamp and freshwater marsh habitats, the Cypress Boardwalk is also wheelchair and stroller friendly. The Apoxee Trail offers a 0.5 mile paved ADA trail that branches off

into a natural substrate trail consisting of sand and boardwalks. Our Eagle Trail sits adjacent to Gator Lake and hosts our ADA accessible fishing pier 225 feet from the trailhead.

Our public programs are aimed at providing fun and educational experiences for visitors of all abilities.

Those interested in organizing group events are encouraged to contact our staff to facilitate programs that meet the needs of your group.

You must fill out an online request form at wpb.org/grassywaters/private_programs-php



Apoxee Trail:

In 2019, the Apoxee Park area was permitted for water storage. Currently, only the ADA accessible paved portion of the trail is open, while the remaining trailways are closed for restoration of the wetland and to raise the trail system. It can store 1.6 billion gallons of water; the equivalent of providing 53 days of water to the community.



Eagle Trail:

Eagle Trail loops around Gator Lake on the north side of Grassy Waters Preserve. Our shaded, ADA accessible fishing pier is located 225 feet off of the trailhead.

Keeping Up With Very Important Plants: Coontie

Everything you need to know about the V.I.P. status of this native plant species

The success story of the atala butterfly and its host plant, the coontie, demonstrates that you can make a big difference by planting native plants in your backyard.

The story begins many millennia ago when the first coontie began growing in the age of the dinosaurs, giving it the reputation as a "living fossil" today.

During the 16th century, Florida Native Americans developed a processing method to turn the coontie's starchy roots into flour. The process was essential to the survival of the indigenous Florida people. This included the Seminoles, especially during the Seminole Indian Wars in the 1800s.

Unfortunately, this practice was industrialized by settlers for use in animal crackers and gourmet flour in the early 1900s. The coontie plant quickly went from abundant to near extinction.

When the coontie declined from being overharvested, so did the butterfly. The coontie is the sole host plant for the atala butterfly, meaning the caterpillars need the coontie to eat in order to survive and grow. By the 1930s the atala butterfly was assumed to be extinct, but in 1959 a local naturalist found a living colony in the Biscayne Bay area.

Working together, local conservationists sparked the atala's comeback. By rearing larvae from the newfound popu-

lation on cultivated coontie, while also encouraging citizens to plant it in their yards, they were able to expand urban and natural area populations of the atalas.

While still considered endangered by the state of Florida, the efforts of gardeners has caused their population to continue to increase. Starting from one tiny population in Biscayne Bay, the atalas are now distributed throughout the southeastern Florida region.

By planting native plant species, like the coontie, you can create a habitat fit for butterflies, bees, nesting birds, and beyond in your own backyard.

When providing a space for these types of


critters, they can help you manage pests like mosquitos, keep aphids from eating your vegetable garden, and pollinate your flower beds.

In addition to providing habitat, native plants require less water. Since they have adapted to survive in the local environment, you can save water and money when it comes to your water bill.


Native flora are also equipped for the local climate, doing well in natural soil and fighting off predators and pests in the area. Therefore, they need little to no fertilizer, pesticide, or herbicide application. This means planting natives in your garden keeps your maintenance costs lower and your watershed pristine.



Host vs. Nectar Plants



Host plants provide food and shelter for caterpillars.




Nectar plants provide food for adult butterflies.

When looking to build your own habitat garden, look for plants that can feed butterflies throughout their entire life cycle.

Support the butterflies and small businesses in your community by checking out these native plant nurseries:

Local:	More Online:
- Indian Trails Native Nursery	- Plantrealfloirida.org
- Meadow Beauty	- Afnn.org
- Native Choice	- Flawildflowers.org

Did you see some neat butterflies?
Submit your butterfly and moth sightings to:
www.butterfliesandmoths.org/get-involved



Participating helps track pollinator populations near you!

Top 10 Tips to Protect the Everglades

1 Conserve Water

The water in the Preserve is a shared resource; look for ways to conserve to help the plants and animals of the Preserve and your water bill. Some actions include taking shorter showers, turning off water while you brush your teeth, installing shut off nozzles on outside hoses, fixing leaky faucets, and shutting off your sprinklers on rainy or windy days.



2 Plant Native

Native plants provide habitat for butterflies, bees, and other wildlife. They are also less expensive to maintain once established as they require little watering, and reduced pesticide, herbicide, or fertilizer use.

Stop by the Nature Center to pick up some free native seeds to add to your garden. Check out page 7 for more information on the value and importance of native plants, and where to purchase them.

3 Participate in Citizen Science Projects



Help scientists gather data by reporting what you see on hikes at the Preserve and other natural areas. One of our favorites is ebird.org, where you can record bird sightings to contribute to bird migration, nesting, and hotspot information.

Come into the Nature Center to record what you saw in our e-Bird kiosk or join one of our bird watching programs to learn more about the project. Ask Nature Center staff how to get involved in ongoing citizen science projects.

4 Don't Litter

Whether you're at home, work, or on a hike make sure to dispose of garbage and recycling properly. Litter can harm wildlife or get into our watershed and affect our drinking water.



5 Use Less Pesticides & Herbicides

Only use the amount that your plants need, or stick to plants that don't need any, to avoid run-off and polluting nearby waterways. To also protect our watershed, don't apply on days forecasted for rain. Consider making your own less harmful alternatives with a base of vinegar or salt.

6 Be a Responsible Pet Owner

Many of the invasive exotic animals damaging the Everglades are released pets. Make sure to properly care for and contain your exotic pets. If you can no longer care for them, look for FWC pet amnesty days at FWC.com to find them a new home for free.



7 Volunteer

Grassy Waters Preserve is always looking for enthusiastic volunteers to engage and educate visitors both inside the building through our exhibits and outside through our educational programs.

People interested in clean-ups and plantings within the Everglades are also needed in other natural areas throughout the county: pbcgov.org/erm/



8 Donate

There are many nonprofit organizations doing great work in Everglades conservation and restoration. One option is the Grassy Waters Conservancy whose mission is to protect Grassy Waters by sponsoring environmental education, research, and nature-based experiences.

Consider making a donation to the Conservancy or one of the sixty Everglades based organizations listed here: evergladescoalition.org/membership.

9 Avoid Single-Use Plastics

Single-use plastic that is used once and thrown away not only contributes high amounts of water and air pollution in the manufacturing process, but also often ends up in our waterways and wetlands. That includes rivers, the ocean, and even Grassy Waters Preserve. One way to help is bringing a reusable water bottle and use our convenient refill stations or water fountains.

10 Visit & Share

Participate in an educational tour at Grassy Waters Preserve or hike in one of the many natural areas throughout the state. Share the knowledge that you learn with family or friends. These areas preserve Everglades habitats, animals, and plants; visit them and share them with others to promote their protection for future generations.

In addition to Grassy Waters, hike a Palm Beach County natural area (pbcgov.org/erm) or a state park (floridastateparks.org).



Volunteer Highlights

Grassy Waters Preserve offers many volunteer opportunities both inside and outside the Nature Center. Volunteers assist with program support including boardwalk, dipnet, swamp tromp, bike tours, and canoe and kayak programs.

Our greatest need begins with weekday mornings assisting with our numerous school field trips. Other volunteer needs include nature center stewards, butterfly gardening, unique restoration projects, and maintenance. Volunteers help provide program support while keeping the outings fun, informative, and safe. When giving your time to us, you can choose to specialize in one area, or partake in a bit of everything!

Still deciding on which way to get involved is best for you? Check out these quotes from some of our volunteers about why they enjoy sharing their time and serving the Grassy Waters community:

"Personally, I benefit from my time at Grassy Waters by broadening my own understanding of environmental issues, sharing my expertise as a retired educator, and learning from the outstanding staff. My volunteer work at Grassy Waters has been the most valuable time spent during my retirement. I am grateful to have the opportunity to contribute to the outstanding work being done

at Grassy Waters and look forward to every hour spent here." --Donna Van Horn

"The reasons I volunteer have changed since I started. An early experience in volunteering at Grassy Waters was during a swamp tromp. I was bringing up the rear in what was a large 5th grade group. Because we were at the back and really could only vaguely hear what was going on in front, I asked the two girls closest what they



thought about our wading through the swamp. 'This is the best day of my life,' came from the closest girl. I was stunned. What I have come to understand since that day is that a significant number of adults and their children have never experienced 'wild nature.'

I personally cherish hiking, wading, and canoeing through wild environments and I am glad to

participate in passing on that love by introducing these activities in our spectacular Everglades to those who would never have had the opportunity otherwise." --Bob Bierley

"I enjoy connecting with nature that has not been disturbed by development and seeing the excitement on school children's faces as they discover the joys of being in 'real Florida.'" --Joanie Pozza

"Being out there, whether it be planting trees, collecting invasive species, or educating future wildlife conservationists, is truly a one of a kind experience that lets you appreciate what the Everglades were like before human intervention. It gives us a unique perspective into the importance of conserving these environments and rehabilitating ones that have been destroyed or damaged." --Lucho Gomez

Become a Volunteer Today!

If you love nature, enjoy the great outdoors, and want to give back to the community, fill out a volunteer information request form online at www.wpb.org/grassywaters/volunteer-php.

Volunteers must be a minimum age of 16 years or older, and are required to complete our volunteer application and a background check. For more information, you can email cabush@wpb.org or call the Nature Center at 561-804-4985.