



GEORGIA

DEPARTMENT OF NATURAL RESOURCES

STEPHEN C. FOSTER STATE PARK

International Dark Sky Park Designation (Gold Tier)



Photo by Rena Johnson

A proposal to:

The International Dark-Sky Association

Compiled By: Michael Ellis

Interpretive Ranger

Contents

Letter of Nomination.....	3
Letter of Support from the Park Manager.....	4
Letters from the Park Community.....	5
Park Information	11
Park History	12
Stephen C. Fosters Dedication to Reducing Light Pollution	15
Stephen C. Foster Mentioned on the Radio	16
Location of Stephen C. Foster State Park	18
Map of Area to be Designated	19
Map of the 402,000 acre wildlife refuge	20
Light Pollution Map of Georgia	21
Light Pollution Map Of The Okefenokee Swamp	22
Night Light Map of Georgia	23
Night Light Map of the Okefenokee Swamp	24
Sky Quality Data	25
Programs Offered at Stephen C. Foster	27
Passive Interpretation	31
Telescopes.....	32
Photos from park guest.....	33
Community Projects	37
Park Management documents regarding Night Sky.....	38
Inventory and Classification of Programs and Services.....	38
Nighttime Public Access Policy.....	45
Light Management Plan	46
After Designation Responsibility	49
Lighting Inventory	52
Appendix 1	56
Appendix 2	58

Letter of Nomination



INTERNATIONAL DARK-SKY ASSOCIATION FLORIDA CHAPTER

... defending Florida's natural night sky environment

May 8, 2016

IDA's Dark Sky Places Committee
c/o Scott Feierabend
International Dark-Sky Association (IDA)
3223 N. First Avenue
Tucson, Arizona 85719

SUBJ: Nomination for Stephen C. Foster State Park as an International Dark Sky Park

As Chair of the IDA Florida Chapter, it my privilege to nominate Stephen C. Foster State Park for an International Dark Sky Park designation. The park is located within the largest region of Georgia with natural night skies, which is in southern Georgia and about 30 miles from the Florida border. This designation will boost the region's ecotourism in both states, as well as enhance protections for wildlife within the Okefenokee National Wildlife Refuge, along the Suwannee River and adjacent protected areas, including public forests in northern Florida.

This designation has been well-earned, as evidenced by their application. The park's exemplary efforts include:

- improvements to the park's outdoor lighting, such as removing unnecessary street lights from service and using motion-sensors on their building outdoor lights
- measurable improvement to the overall night sky quality after lighting retrofits, as shown by their most recent Sky Quality Meter (SQM) readings
- educational programs that teach park visitors about astronomy and light pollution

I am delighted about Stephen C. Foster State Park's commitment to protect and educate on the importance of natural night skies. They are setting an example not just for Georgia but for Florida too. My hope is that this designation will help start and/or boost efforts across the region to significantly improve outdoor lighting policies, particularly in Jacksonville, FL which is the largest source of light pollution that threatens Southern Georgia and Northeast Florida.

Sincerely,

Diana Umpierre, AICP, GISP
International Dark-Sky Association
IDA Florida Chapter, Chair
Pembroke Pines, FL
NightSkyConservancy@gmail.com
<https://www.facebook.com/NightSkyConservancy>
(954) 829-7632

cc: Michael Ellis, Stephen C. Foster State Park

Letter of Support from the Park Manager



STEPHEN C. FOSTER STATE PARK

MARK WILLIAMS
COMMISSIONER

BECKY KELLEY
DIRECTOR

March 25, 2016

International Dark Sky Association
3223 North First Avenue
Tucson, AZ 85719

To Whom This May Concern:

I am writing to endorse and support the efforts of the staff of Stephen C. Foster State Park in obtaining the Dark Sky Place Designation through the International Dark Sky Association.

As the Park Manager of Stephen C. Foster I see nothing but great things coming from being designated as a Dark Sky Park. We have already seen some benefits from our efforts. From a Management standpoint there is a financial advantage to what we are doing. Not only does the energy efficient lighting cut on power cost, but the better astronomy viewing attract more visitors and revenue for the park.

Alternatively, Dark Sky is not all about economics, we also consider light pollutions effects on astronomy education, wildlife, plant, and our own human health. Through much research and understanding we know that all life plant animal and even humans work on a circadian rhythm. At Stephen C. Foster we take it as our personal responsibility to protect all wildlife and their way of living.

It has been a long journey to see this park get designated as a Dark Sky Place and I am happy to say it has all been worth it. We started by thinking Dark Sky was all about astronomy but through the process have found out that it much more than that. I believe that Stephen Foster and the International Dark Sky Association can enter into a long lasting partnership that will benefit all parties involved the IDA, the park, and wildlife alike.

Sincerely,

Bryan Gray
Park Manager
Stephen C. Foster State Park
17515 Hwy 177
Fargo Ga. 31631

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912.637.5274 | FAX 912.637.5387 | GEORGIASTATEPARKS.ORG/STEPHENCFOSTER

Letters from the Park Community



MARK WILLIAMS
COMMISSIONER

DECKY KELLEY
DIRECTOR

International Dark Sky Association
3223 North First Avenue
Tucson, AZ 85719

March 26, 2016

To Whom This May Concern:

I would like to express my opinion and support for Stephen C. Foster State Park's effort to become a Dark Sky designation.

I am the Assistant Park Manager at Stephen C. Foster State Park and have been in a unique position to watch as our park has gone from great to even better during the preparation and application process to obtain the Dark Sky certification. Our park is an intended vacation destination for people from all over the world. The unique environment at the park offers something different for all types of guests. One of the biggest and most popular programs offered at Stephen C. Foster State Park is Astronomy. We have invested a lot into this program as it continues to grow in popularity among our guests. For some of our guests, the opportunity to experience an area lacking in light pollution to observe the beautiful night sky is the main reason for their visit. Since the early beginnings of starting the application process to become a Dark Sky destination, we have eliminated the "old ways" of providing light and have learned and implemented the newer energy efficient and less pollutant lighting. Some of this was even done with the help of our local power company and some of their latest lighting technology. I, along with the rest of our staff and guests are very excited about the opportunity and long lasting effects that obtaining the Dark Sky certification will provide for everyone involved. I appreciate your time and sincerely hope that you will consider Stephen C. Foster State Park for the Dark Sky certification.

Namon Samuel Cox
Assistant Park Manager
Stephen C. Foster State Park
17515 Hwy 177
Fargo, GA 31631
(912) 637-5274

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STATE PARKS & HISTORIC SITES

MARK WILLIAMS
COMMISSIONER

BECKY KELLEY
DIRECTOR

Date: June 27, 2014

To: IDA Board of Directors
International Dark-Sky Association
3225 N. First Avenue
Tucson, AZ 85719

From: Cindy Reitinger, Chief Naturalist
Georgia State Parks and Historic Sites Headquarters
2600 Highway 155 SW, Suite C
Stockbridge, Georgia 30281

Dear IDA Board of Directors,

I strongly support the nomination of Stephen C. Foster State Park for Dark Sky Park designation. As a naturalist I have a deep appreciation for the wonders of the night sky and as a resident of a large urban area (Atlanta) I am well aware of the effects of light pollution. Stephen C. Foster State Park by virtue of its' remote location within the Okefenokee Swamp National Wildlife Refuge is deserving of gold tier Dark Sky Park designation.

The 438,000-acre Okefenokee Swamp is located in an isolated part of the state; of the three public access points to the swamp Stephen C. Foster State Park is the most remote. Situated six miles inside the secluded western border of the wildlife refuge, Stephen C. Foster State Park is located at the end of a secluded stretch of state highway 18 miles from the nearest crossroads. At just 80-acres the park consists of a small museum, park office, boat docks, 64 camp sites and 10 cabins.

Stephen C. Foster State Park provides visitors from around the world with the rare opportunity to experience one of this country's most famous wetland wilderness areas in the comfort of a state park setting. Here visitors experience first-hand the natural wonders of the Okefenokee - towering moss-draped cypress trees, the reflective black waters of the swamp, an amazing diversity of plant and animal life and last but not least, a truly dark night sky, a rare experience in our culture today.

Sincerely,

Cindy Reitinger

DIVISION HEADQUARTERS | 2600 HWY 155 SW, SUITE C | STOCKBRIDGE, GEORGIA 30281
404.656.2770 | FAX 770.389.7402 | GEORGIASTATEPARKS.ORG

To Whom It May Concern,

I fully support the idea of reducing light pollution at Stephen C. Foster State Park in Georgia by implementing practices recommended by the International Dark-Sky Association (<http://darsky.org>). Based upon scientific evidence, I firmly believe the plants and animals at the park will benefit greatly from the reduction of light pollution. This is especially important for this state park located within a National Wildlife Refuge, which is supposed to be an area set aside to conserve and protect the plants and wildlife within it.

Another benefit of reducing light pollution within the park is that it will also reduce the overall costs associated with running/operating/managing the park (e.g. less cost is associated with a reduced amount of artificial lighting at night). I also believe that it may even increase the number visitors to the park by making it an even more attractive place to view wildlife/plants (better natural conditions allow wildlife and plants to thrive better) and for viewing stars at night. I am sure there are other benefits of reducing light pollution that I have not mentioned here.

At the end of the day, I would like to see Stephen C. Foster continue to take steps towards making/maintaining itself as close as possible to its natural state. Reducing the use of artificial lighting in the park is just one way to help make this happen. As a frequent visitor to the park and wildlife enthusiast, I hope to see a reduction in the use of night time artificial lighting over time. Thank you very much for your consideration.

Sincerely,

Justin Oguni, BS/DVM

February 24, 2016

International Dark Sky Association

3223 North First Avenue

Tucson, AZ 85719Nomination

Mr. John Barentine:

I am writing to endorse Stephen C. Foster (SCF) State Park's efforts to obtain the designation of a Dark Sky Park. SCF State Park is located near Fargo Georgia.

I have been associated with SCF State Park as a volunteer since early 2012 when I began helping the Interpretative Ranger Michael Ellis prepare and present astronomy programming to park visitors both camping and day-use visiting for the program. I myself have been an amateur astronomer most of my life and began doing public telescopic viewing programs in the mid-1990s. I am a member of ALPO as well as the Astronomical League through my local club the Northeast Florida Astronomical Society.

During my time with the park, SCF staff have been exceptionally committed to offering regular astronomy programming including daytime activities in their nature center as well as night time telescopic viewing of both the Moon and the dark sky, constellation tours and general question and answer sessions. Often youth groups come into the park especially for these astronomy programs. I have seen the number of attendees vary from a dozen on a particularly hot summer night to between 100 and 200 when the weather has been nice and the promise of a view through the telescope seems assured. A unique astronomy experience offered by SCF is a evening boat trip out on the lakes comprising the swamp which ends after twilight and then a brief laser guided tour of the night sky in absolute blackness, unless one counts the light pollution from Jupiter or Venus?

SCF is relatively remote, being some 17 miles from the nearest small community of Fargo Georgia. This state park is located within the larger Federal Refuge for the Okefenokee Swamp, limiting future growth and light pollution. Open areas in the park offer excellent vistas of the night sky. There is a light dome I think from Waycross GA to the NW of the main paved viewing area. It is more pronounced in the months of higher humidity and of course much less so in dryer months. I believe outside of the SCF State Park's control is the blinking light on the Federal Communications Tower to the SW of the paved viewing area. SCF State Park's efforts at light shielding should make night sky evidence of artificial light from the state park non-existent!

SCF State Park's location within a gated federal refuge situation contributes greatly to my sense of personal security while enjoying the night sky. There simply isn't a way for casual intruders to happen upon one observing in the dark! Something that is missing here in Jacksonville Florida. Nearby rest facilities makes it possible for all ages and genders to stay to their contentment and not have to leave to use rest facilities.

I've not done darkness measurements at the park, nor recorded my impression of seeing. I would note that the large amount of wetlands surrounding the developed part of the park seem to contribute to particularly stable seeing conditions. Remoteness from traffic and industry with its associated dust and emissions seems to help with transparency as well. The Milky Way is particularly visible, inspiring many to put a camera on a tripod and obtain really nice wide field images often with under 30 seconds exposures. One group thought something was wrong when they were obtaining irregular red blotches in the region of Scorpius and Sagittarius. I reassured them that those red spots were actually present and not an artifact of their photography! I don't possess particularly keen vision at night, having night myopia. I do however regularly see Ptolemy's and the Butterfly clusters in that region of the sky.

If I may be of further assistance in this effort one need only let me know what to do. SCF State Park has been particularly dedicated to offering astronomy programming and night sky views to the public, obtaining grants to purchase equipment and learning how to use it! I certainly recommend the park to my observing friends.

Sincerely,

Ted L. Treiber

CC: Stephen C. Foster State Park; Attn: Michael Ellis Interpretative Ranger



STATE PARKS & HISTORIC SITES

MARK WILLIAMS
COMMISSIONER

BECKY KELLEY
DIRECTOR

March 25, 2016

IDA Board of Directors
International Dark-Sky Association
3225 N. First Avenue
Tucson, AZ 85719

Dear IDA Board of Directors,

I am pleased to be sending a letter of support on behalf of Stephen C. Foster State Park regarding their nomination for Dark Sky Park designation. The park is located within the Okefenokee National Wildlife Refuge, a 402,000-acre wilderness and ecological wonder that provides a myriad of educational programs, events and activities focusing on showcasing the special ecosystem in South Georgia. Stephen C. Foster is the western gateway to one of the state's most recognized sites, attracting more than 100,000 visitors annually, and the ecological efforts of the staff and volunteers provide ample reason for the Dark Sky Park designation.

Every year the staff of Stephen C. Foster offers programs to educate visitors on the local ecosystem and the Dark Sky designation will help protect this special place, and ensure it stays relatively free of light interference, but also expand the offerings available to educate visitors about nighttime in the Okefenokee Swamp.

I feel the Dark Sky designation will bring Stephen C. Foster State Park even more recognition as a special place unlike any other in the United States. This designation will further the reputation of the park as one of the very few places left in Georgia where people can truly experience natural darkness and its effect on animal life and the opportunity for a more authentic view of a starlit sky. For these reasons, I strongly support Stephen C. Foster in Fargo, Georgia, for the international "Dark Sky" designation.

Thank you for your consideration of Stephen C. Foster State Park. Please feel free to contact me if I may be of assistance as you consider this designation.

Sincerely,

Becky Kelley

Becky Kelley
Director

DIVISION HEADQUARTERS | 2600 HWY 155 SW, SUITE C | STOCKBRIDGE, GEORGIA 30281
404.656.2770 | FAX 770.389.7402 | GEORGIASTATEPARKS.ORG



STATE PARKS & HISTORIC SITES

MARK WILLIAMS
COMMISSIONER

BECKY KELLEY
DIRECTOR

IDA Board of Directors
International Dark-Sky Association
3225 N. First Avenue
Tucson, AZ 85719

March 25, 2016

Dear IDA Board of Directors,

As the Region Manager for the State Parks in Southeast Georgia I am very excited about the possibility of Stephen C. Foster State Park earning the Dark Sky designation. When I first read an article about this designation I immediately thought that this State Park was the ideal location for this effort. I have been the Region Manager over Stephen C. Foster for over eight years and have spent many nights at the park. I have enjoyed getting out at night at this site to experience the darkness that this location offers. The staff of the park have offered events that take advantage of the level of darkness they have from their remote location. I have participated in night boat tours in the Okefenokee Swamp and astronomy programs. The Okefenokee is a special place at any time but there is a whole other experience after dark.

I highly recommend that Stephen C. Foster State Park receive this Dark Sky designation. With this level of recognition I believe even more people will visit the site and learn more about what the darkness has to offer.

Sincerely,

Tommy Turk
Region 2 Manager
Georgia State Parks & Historic Sites

REGION TWO OFFICE | ONE CONSERVATION WAY | BRUNSWICK, GEORGIA 31520-8605
912.262.3180 | FAX 912.262.3183 | GEORGIASTATEPARKS.ORG

Park Information

This remote park is a primary entrance to the legendary Okefenokee Swamp -- one of Georgia's seven natural wonders. Spanish moss-laced trees reflect off the black swamp waters, while cypress knees rise upward from the glass-like surface. Here, paddlers and photographers will enjoy breathtaking scenery and abundant wildlife. Alligators, turtles, raccoons, black bears, deer, ibis, herons, wood storks, red-cockaded woodpeckers and numerous other creatures make their homes in the 402,000-acre refuge. Stargazers will appreciate the particularly dark sky. Astronomy programs with a 10" telescope are regularly offered.

Park staff offer guided boat tours at 10 a.m. 1:30 pm and 3:30 p.m. Same-day reservations are recommended. More adventurous visitors may wish to rent canoes, kayaks or jon boats for further exploration of the swamp, including a trip to historic Billy's Island. Fishing in the lake is excellent, particularly for warmouth, bluegill, catfish, chain pickerel and bowfin. Boating is dependent upon water levels. Overnight guests may stay in a shaded campground or fully equipped cabins. Because the state park is located within a National Wildlife Refuge, gates lock at closing and a refuge fee is charged.

Perhaps the most famous inhabitant of the Okefenokee Swamp is the American Alligator. Officials estimate that 15,000 of the country's largest reptile live within the swamp. To safely view these creatures, visitors should admire them from a distance and keep hands and feet inside boats. Pets are not allowed in boats, even privately owned vessels. Children should not play near the water's edge. Feeding any wildlife is prohibited. Following these guidelines will help visitors have a safe and entertaining experience in one of the Seven Natural Wonders of Georgia.

At the park's Suwannee River Visitor Center in Fargo, visitors learn not only about the Okefenokee Swamp's ecosystem, but also how buildings can be made from recycled car parts. Located off Hwy. 441 at the Suwannee River Bridge, the center mixes environmental education with engineering showmanship. Inside, visitors learn that tannic acid produced by decaying vegetation is what gives the river its tea color and that unlike other reptiles, mother alligators actively care for their babies. A third of the building materials were made from recycled content, including a retaining wall made from old dashboards and electrical cables.

Park History

The earliest known inhabitants of the Okefenokee Swamp were the Late Archaic Hunter-Collectors that lived here in 2000 B.C. As the name suggest the hunting of wild animals and the gathering of wild edibles was the primary subsistence of this culture. Between 1 A.D. and 300 A.D. the Early Woodland Hunter-Collectors were the primary occupants of the Okefenokee Swamp. At this time there was little difference between this culture and the Late Archaic Culture differing only in the use of basic ceramic Pottery. The period of 300 A.D. to 900 A.D. brought in the Middle Woodland Hunter-Collectors. This is the culture that we accredit the Weedan Island Period Native American Indian mounds that appear dotted across the entire Okefenokee Swamp. Upon excavation of one of these mound on Floyds Island there was a skeleton found that was seven foot two inches tall earning this tribe the the nickname of "The Giants".

The next set of inhabitants was here between 900 A.D. and 1200 A.D. which were the Late Woodland Hunters-Collectors these were possibly even early cultivators. 1300 A.D. began the Late Mississippian Period in the Okefenokee Swamp. The Late Mississippians were hunters collectors and avid agriculturist. They were here until 1600 A.D. According to Spanish records in 1602 there was a few Timicuan settlements as well as two Spanish Missions in the area of the swamp. Between 1600 A.D. and 1838 A.D. there were various other tribes that moved in and out of the Okefenokee Swamp including the Creek, and Seminole. The Second Seminole War briefly entered the Okefenokee from 1836 to 1838. In 1838 General Floyd led an army into the Okefenokee in search of Native Americans that had just massacred a family on the north end of the swamp. That family was named the Wildes family. In the midst of the Second Seminole War Maximilian Wilds and his family had spent a sleepless night worrying about Seminole warriors who had been watching them over a period of several days. Small object pelted the house during the night, keeping the Wildes awake. Billy Bowlegs who grew up in the Okefenokee Swamp, assumed leadership of the Seminole Indians following the death of Osceola, who was detained under a white flag of truce and died in prison. By the time of the Wildes Massacre Bowlegs was in the Everglades and there is no evidence he ordered or knew of the attack. The Seminoles may have chosen the Wildes family for a number of reasons, but no one knows exactly why. The attack came early Saturday morning. Reports as to what happened vary, but during the attack the Seminole killed most of the family. Four Wildes boys and a neighbor's daughter (who was one of four visiting the Wildes survived. Neighbors heard the gunfire and headed to the farm with guns, but too late to help the family. Immediately, the settlers prepared for additional attacks. Women and children were sent to the fort in Waycross, and men began an armed search for the Seminoles who had defiled the Wildes family to no avail.

General Floyd established Fort Walker on Billy's Island but it took him so long to construct the picket fort and garrison his troops by the time he started patrols he found there

was no longer a Native American presence in the Okefenokee. General Floyd stated that all he found was “Some huts and smoldering campfires” The Natives had left headed toward Florida ending the age of Native Americans in the swamp.

By the late 1800s settlers had moved into the Okefenokee Swamp most notable were the Lees and the Chessers the Lees lived on our side of the swamp. In 1884 Jim Lee moves to Billy’s Island sets up a homestead. The Lee family were self-sufficient they raised crops herded livestock such as cows and hogs right on the swamp island. For the things that they could not make themselves they traded pelts and wild swamp honey to nearby trading posts. The trading post at Traders Hill on the north end of the swamp and the trading post in Fargo on the south west end of the swamp near Suwannee River offered the Lee family things like coffee and ammunition. The Lees raised thirteen children on Billy’s Island which they thought all of them how to read and wright from the King James Bible. In 1901 the swamp was bought by the Hebard Cypress Co. upon surveying the land the Hebard’s found the Lee family and quickly evicted them. Most of the Lee sons stayed and worked as guides for the logging company.

The Hebard Cypress Co. quickly set up a logging camp on Billy’s Island around 1918. The logging camp turned into a town that attracted about 800 residents that came straight into the town by way of the newly established railroad. This town in the middle of the great swamp had everything a town should have it had a general store two schools, two churches, a machine shop, Doctor, a movie theater, and a saloon. The movie theater was the largest building on the island they called it the picture show. The movie house would show the same picture until all the residents of the town got to see the movie then they would send it off and wait on another movie to show up on the train. By 1926 the town was abandoned

The Okefenokee National wildlife refuge was established in 1936 in order to preserve the 700 square mile swamp. In 1974 to further ensure further protection of this unique ecosystem, the interior 353,981 acres of the refuge were designated a National Wilderness Area. The Okefenokee Swamp remains one of the oldest and most well preserved freshwater areas in America.

State Senator Iris Blitch introduced a resolution in the Georgia State Senate during the 1953 session. She and Representative Downing from Homerville Ga. promoted an effort to get the state to porches the Okefenokee Recreation INC. concession operating on Jones Island two miles from Billy’s Island on the west side of the swamp. The resolution passed and was signed by the governor on December 12, 1953. The Resolution authorized the governor and the director of the Georgia State Parks to negotiate for the purchase of the facilities of the Okefenokee Recreation Inc. and for the assignment of certain lands in the Okefenokee National Wildlife Refuge. Due to a shortage of funds no action was taken until July, 8, 1954. The Board of Directors of the Okefenokee Recreation Inc. met with the director of the Georgia State Parks

and transferred all of their property and interest in Camp Stephen Foster on Jones Island to the Georgia State Parks and Historic Sites Division of the Georgia Department of Natural Resources. Stephen C. Foster State Park opened later that year.

Located within the Okefenokee National Wildlife Refuge, Stephen C. Foster State Park is remote, wild and scenic. Wildlife is abundant and water trails allow visitors to see the natural beauty of the Okefenokee Swamp. The park provides a great time every time thru Boat Rentals, Ranger led Boat Tours, and Astronomy Programs.

Stephen C. Fosters Dedication to Reducing Light Pollution

In 2012 Stephen C. Foster was approached by Astronomy Public Outreach & Education (APOE) as a potential place to do astronomy programing. The park staff embraced the idea of astronomy program with open arms. The idea of making use of the biggest unused resource the park had was outstanding. The park started a partnership with APOE to benefit the guest attending the programs. APOE was directed by Ted Treiber a professional astronomer trained by NASA to educate astronomy.

APOE held training classes to teach the park interpretive staff how to educate people about astronomy in a fun and relatable way. APOE donated a Dobsonian style telescope for the park interpretive staff to use. Programs since then have been offered multiple times a month and every Saturday during busy season. Astronomy related programing has proved to be wildly successful, we regularly host more than 100 people, and at times up to 200 people have attended.

In response to the success of Stephen Fosters astronomy program the Georgia Department of Natural Resources State Parks and Historic Sites acquired an additional scope and equipment for the park. As APOE went defunct The park continued to have a working relationship with Ted Treiber who still aids us in our mission to educate the public. Over time the staff started to appreciate the night sky and darkness for more than just astronomy.

In 2014 the Staff of Stephen C. Foster started including light pollution and its effects on wildlife, plants, people, and its effect on astronomy in our educational programs. The staff started considering meatheads of reducing light pollution through education and by reducing our own light pollution

Recent developments

In 2016 Stephen C. Foster has refitted and changed the majority of the park lighting. Making a transition to the use of motion sensors and LED technology to minimize the light emitted to the night sky. Also in co-operation with Slash Pine EMC electric company to remove all but three of the parks street lights. Slash Pine EMC also installed new directional LED's in the three remaining street lights. We have now added two new Celestron NEXSTAR 8SE telescopes to our astronomy equipment inventory. Additionally, the park has purchased an 8X12 trailer for our observing equipment, so we can now branch out to provide astronomy and light pollution programs at other places across South Georgia.

Stephen C. Foster Mentioned on the Radio

Look For Rural Skies In Ga. To View Upcoming Meteor Shower

By LINDSAY GLADU · DEC 9, 2015



The Geminids meteor shower will be on display with approximately 120 meteors per hour flying through the night sky, according to NASA.

ASIM PATEL / WIKIMEDIA

Don't miss the show in the sky Sunday and Monday night.

The Geminids meteor shower will be on display with approximately 120 meteors per hour flying through the night sky, according to NASA.

Finding a spot outside of Atlanta where the light pollution is low will be key to see the yellow-tinted meteors.

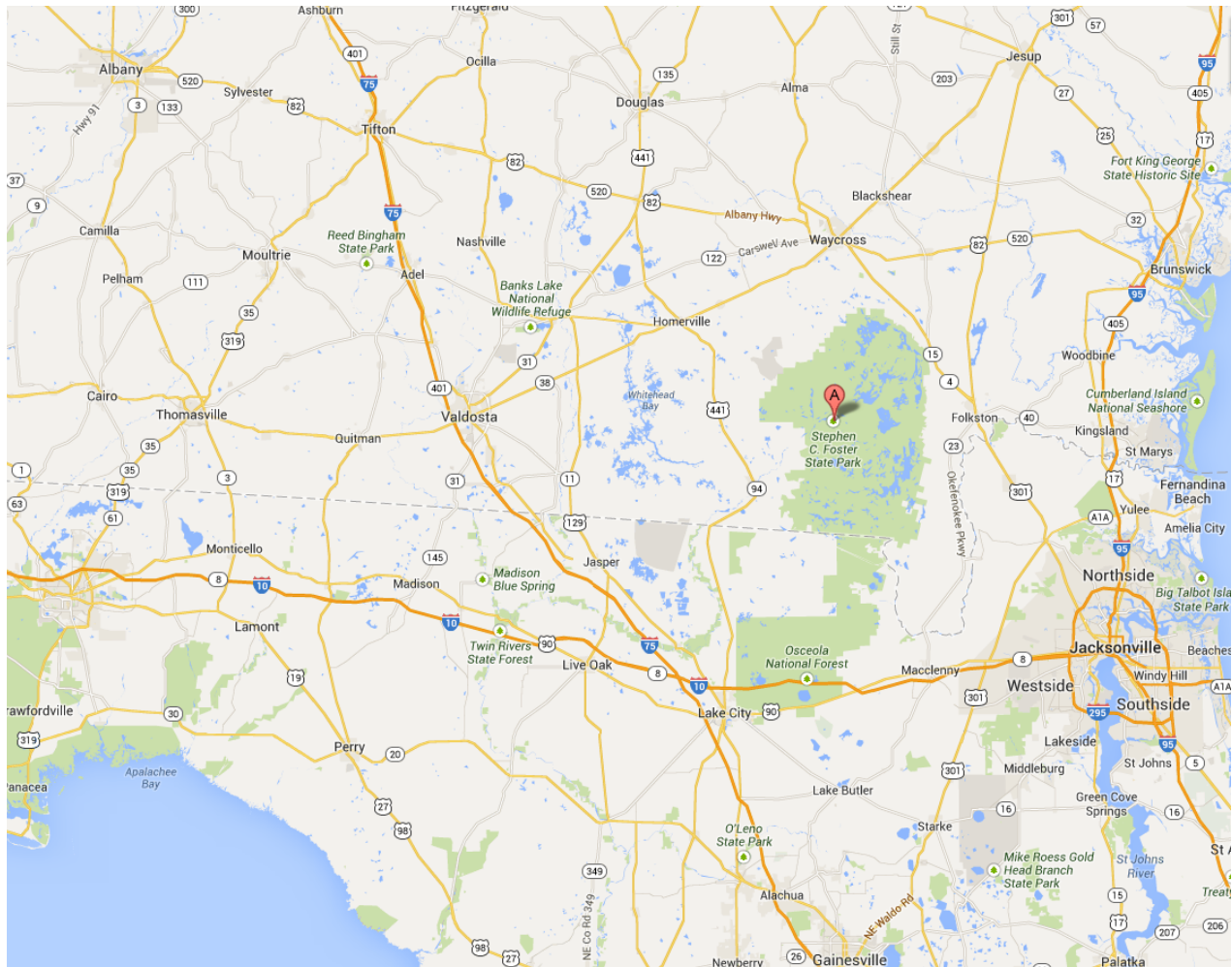
“Due to lack of light pollution, Stephen C. Foster State Park is one the darkest places in Georgia,” park ranger Michael Ellis said in a press release. “We can see deep space objects much further out in the universe like Saturn’s rings, the moons of Jupiter and the Andromeda Galaxy, more than 2.537 million light years away.”

If a destination stargazing adventure to the Okefenokee Swamp in Fargo, Georgia, isn't in the cards, any dark sky will do.

The best time to view the meteors will be between 9 and 10 p.m. but the shower lasts all night. To find the meteor shower, look to the constellation Gemini, from where the meteor shower gets its name.



Location of Stephen C. Foster State Park



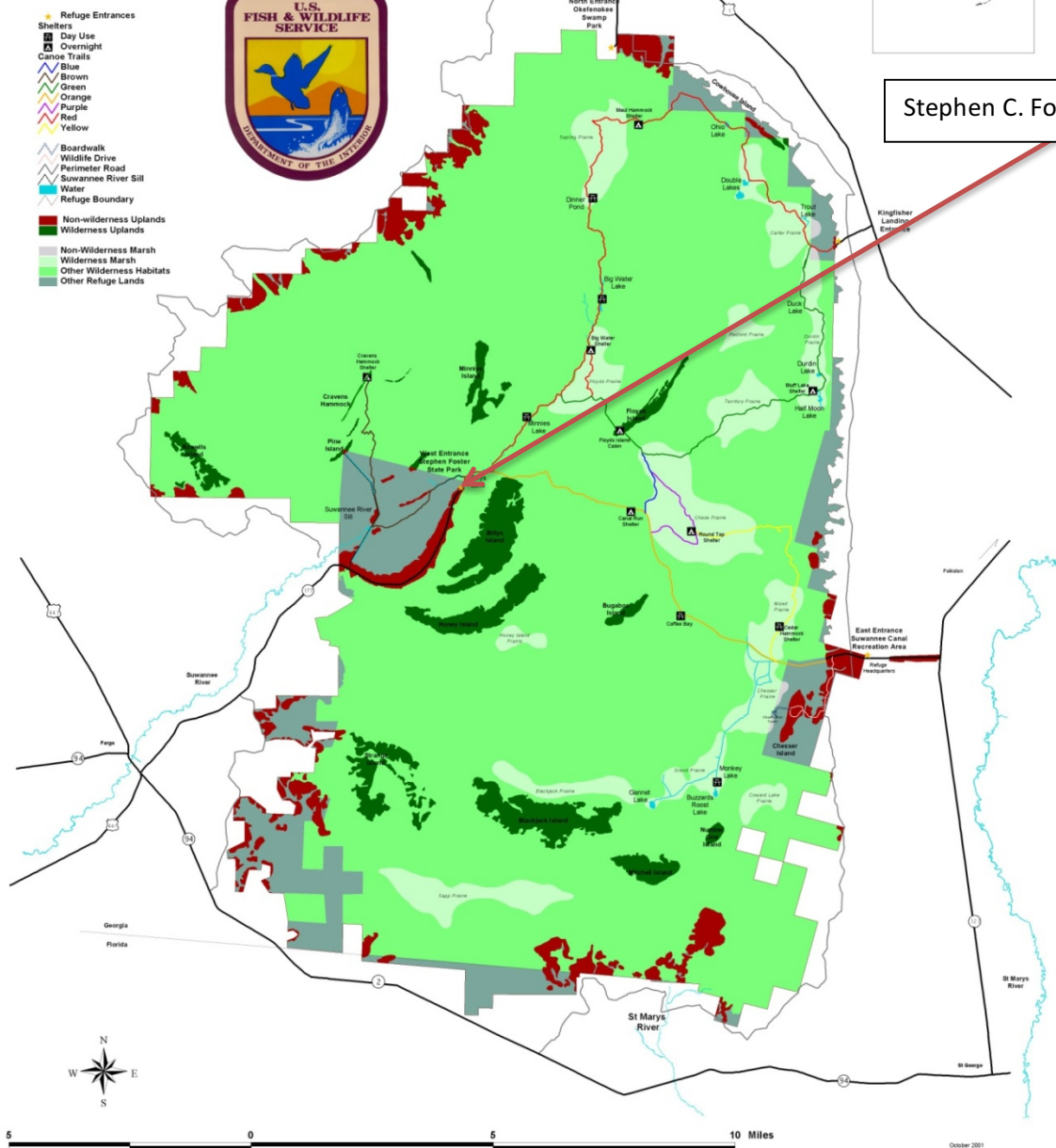
Map of Area to be Designated

The area nominated includes all of Stephen C. Foster State Park (80 acres) as seen on the map below. The park is a part of the Okefenokee National Wildlife Refuge, the largest NWR east of the Mississippi River, which can be seen on the map on the next page. Stephen Foster is considered the western entrance to the Okefenokee but we are located toward the middle of the refuge. Because of this seclusion the park has especially dark skies.

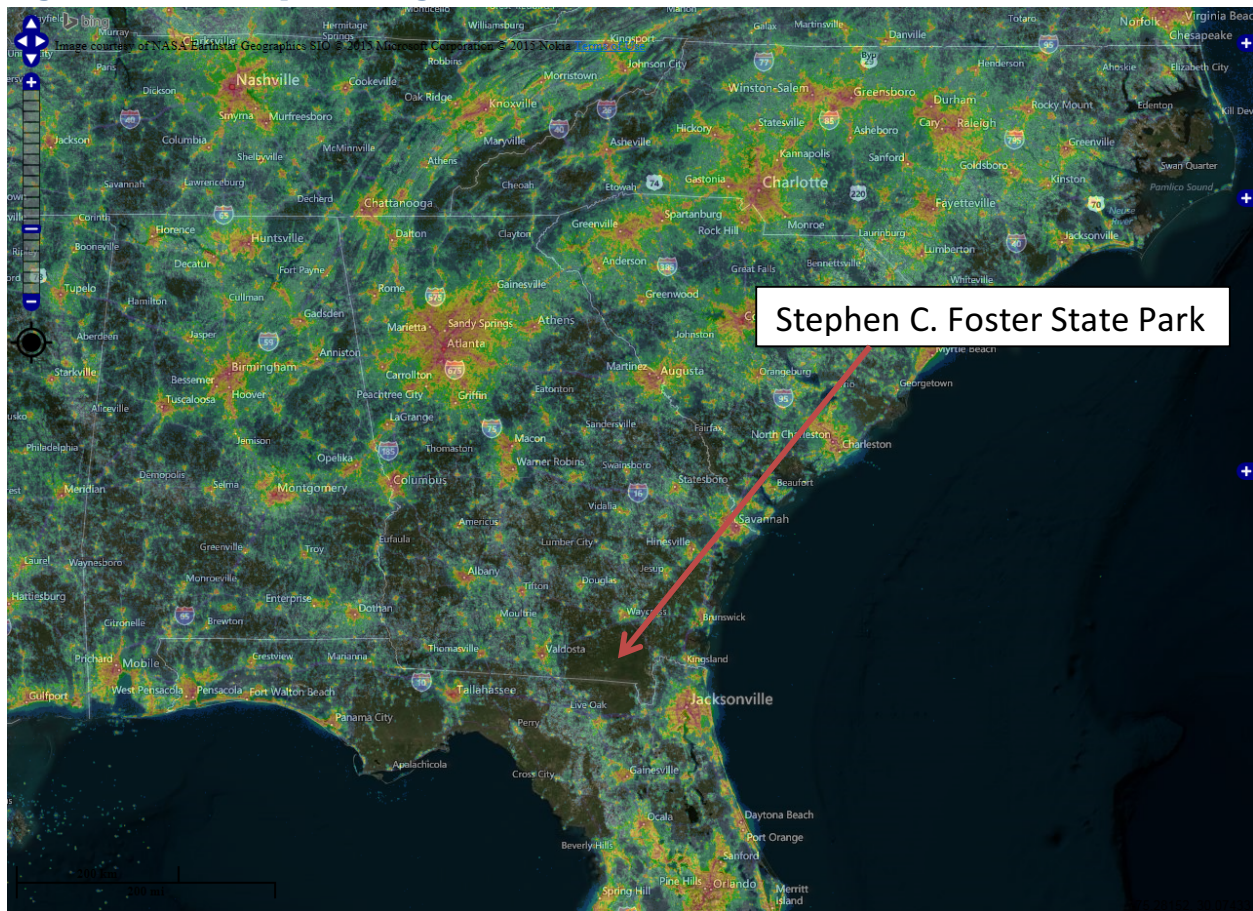


Map of the 402,000 acre wildlife refuge

Okefenokee National Wildlife Refuge

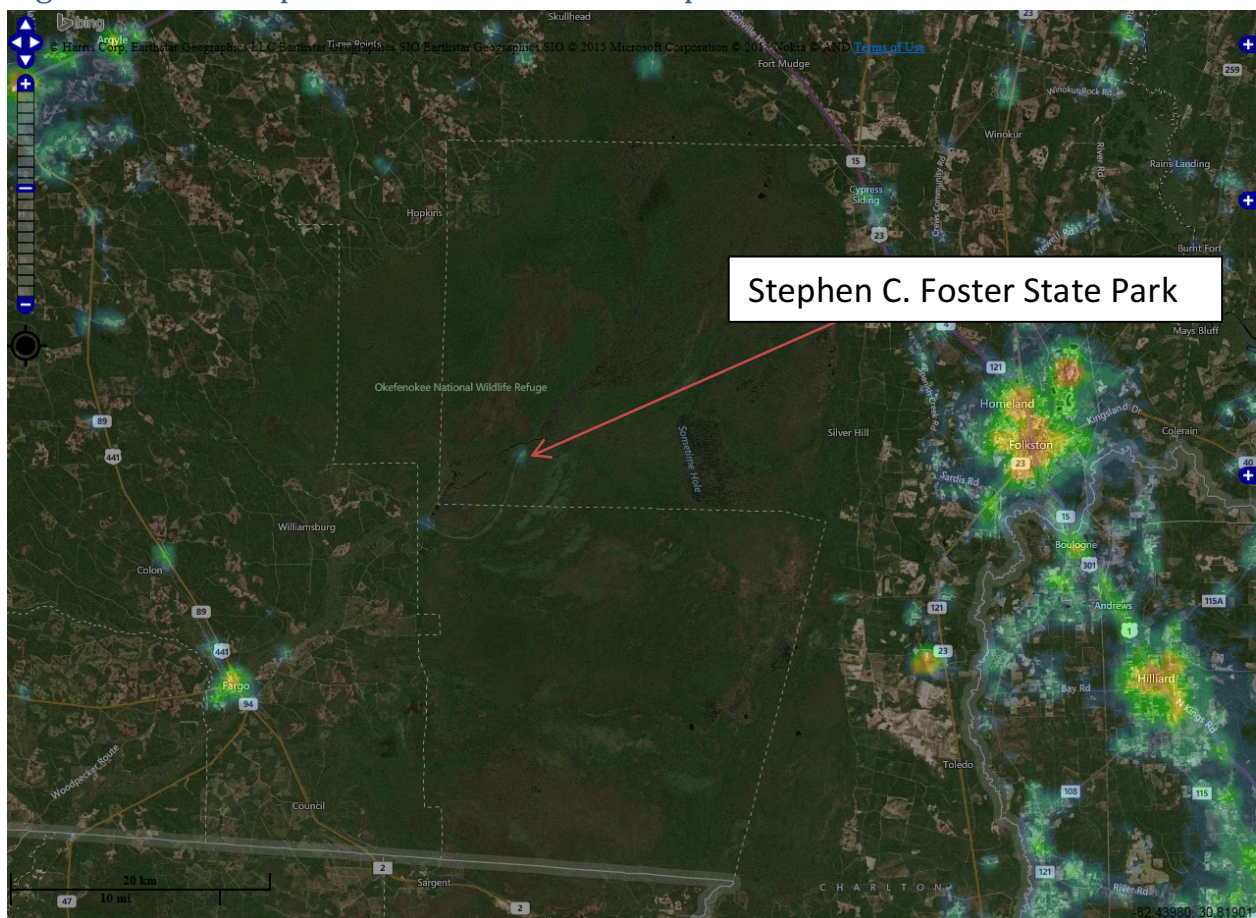


Light Pollution Map of Georgia



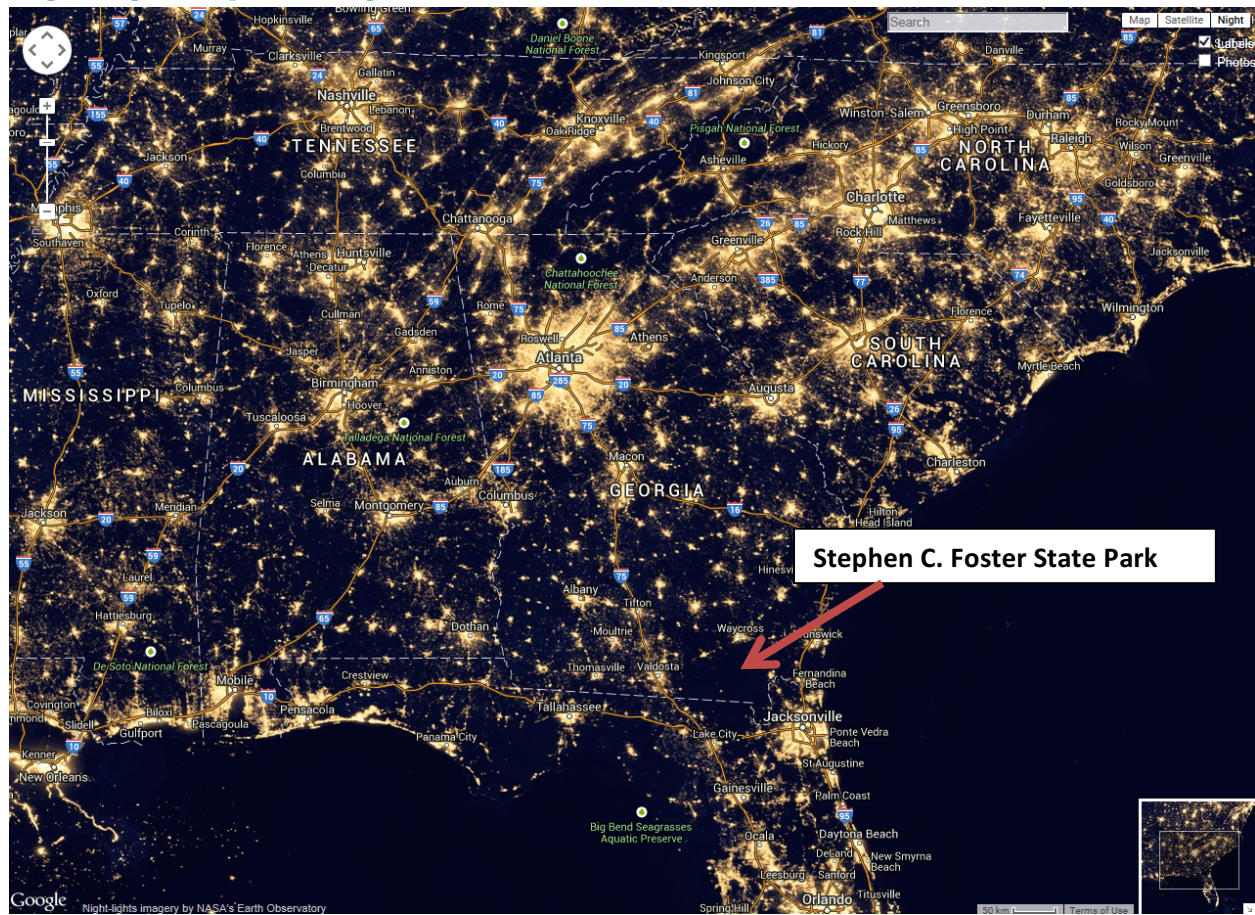
Source: <http://www.lightpollutionmap.info>

Light Pollution Map Of The Okefenokee Swamp



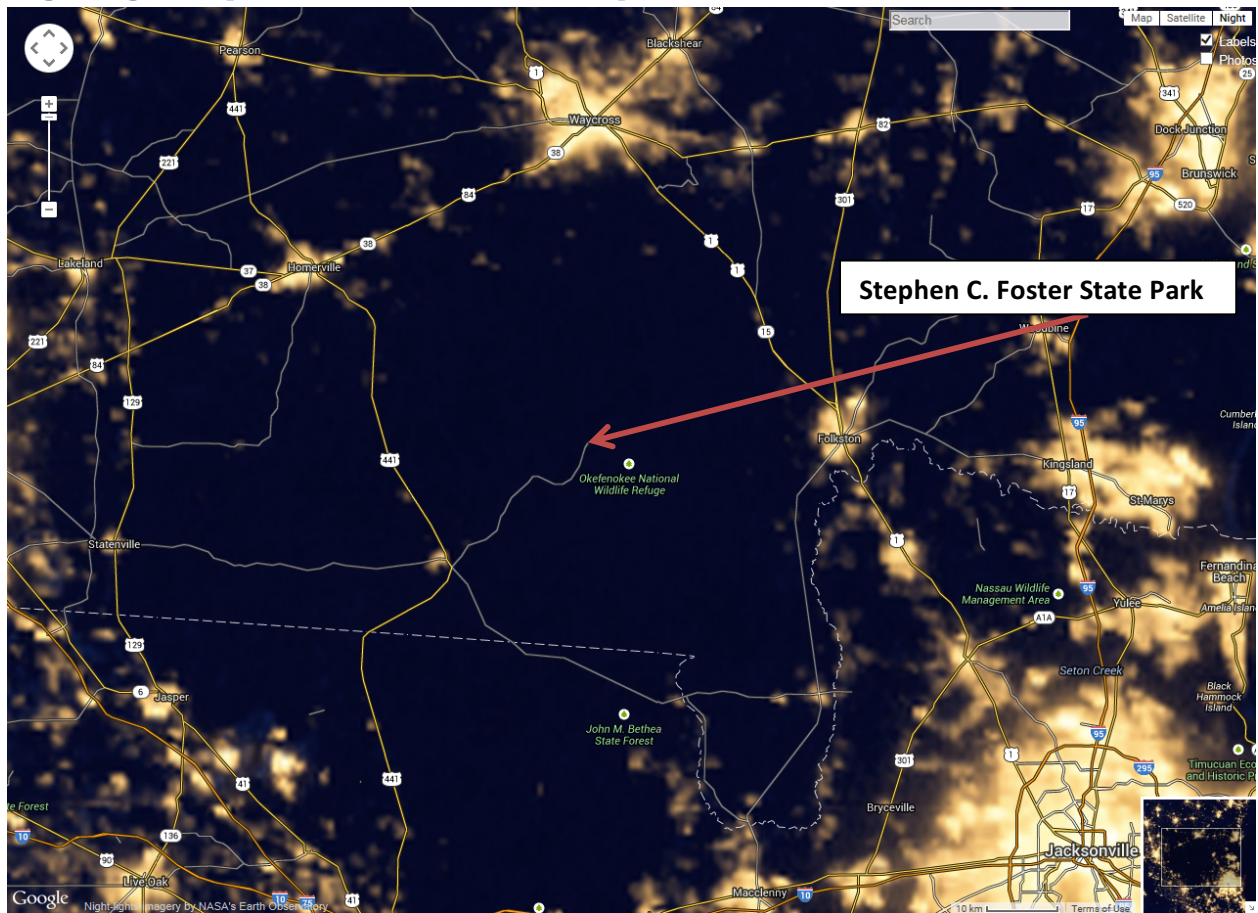
Source: <http://www.lightpollutionmap.info>

Night Light Map of Georgia



Source: <http://www.blue-marble.de/nightlights/2012>

Night Light Map of the Okefenokee Swamp



Source: <http://www.blue-marble.de/nightlights/2012>

Sky Quality Data

Stephen C. Foster State Park is located within the Okefenokee National Wildlife Refuge (see map on page 20). The Okefenokee National Wildlife Refuge is a 700 square mile swamp that has been protected since 1942. In October 1st 1974 the Okefenokee was declared a wilderness area under the Wilderness act of 1964. As a wilderness area the Okefenokee will remain natural in perpetuity. Nobody is allowed to help, harm, add, take away, improve or destroy anything the refuge will remain wild natural and undeveloped. To this day 60% of the swamp remains inaccessible and unexplored which makes the Okefenokee Georgia's largest unexplored wilderness.

The refuge makes a natural barrier to development around the park, guaranteeing that the parks skies will always remain dark. When you look at the night sky maps of South Georgia, provided in the above section, you will notice a gaping black hole which is the Okefenokee Swamp. The great defensible location combined with our efforts to reduce our own light pollution make the park deserving of the title Dark Sky Place.

For our sky quality monuments we use a Unihedron Sky Quality Meter, as recommended by the IDA. Before we took out all the street lights and retrofitted the parks outdoor lighting we measured an average of 21.54 across the park at the skies zenith. After the park has reduced our light pollution we have measured an increased average across the park at the skies zenith.

On observation date 3/28/2016 at 9:30 pm EST we recorded the following numbers.

North - 21.75

Mid 1 - 21.62

Mid 2 - 21.76

South - 21.77

Note: We had a full campground during this set of Measurements

On observation date 4/27/2016 at 9:45 pm EST we recorded the following numbers.

North – 21.86

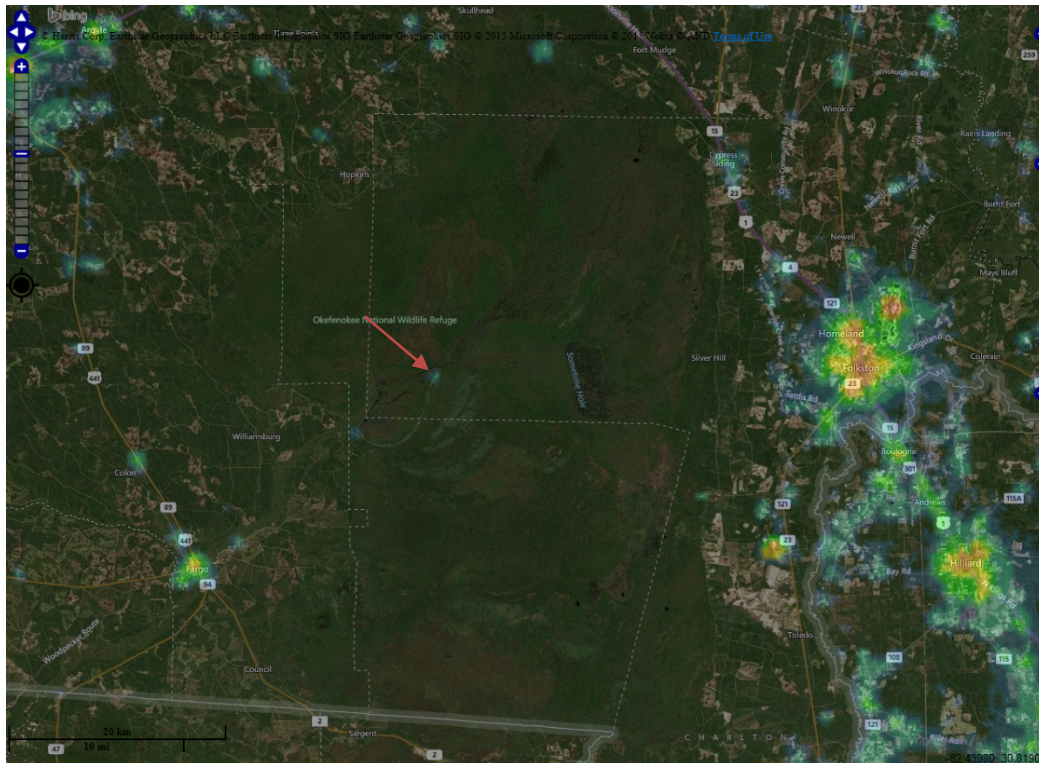
Mid 1 – 21.80

Mid 2 – 21.80

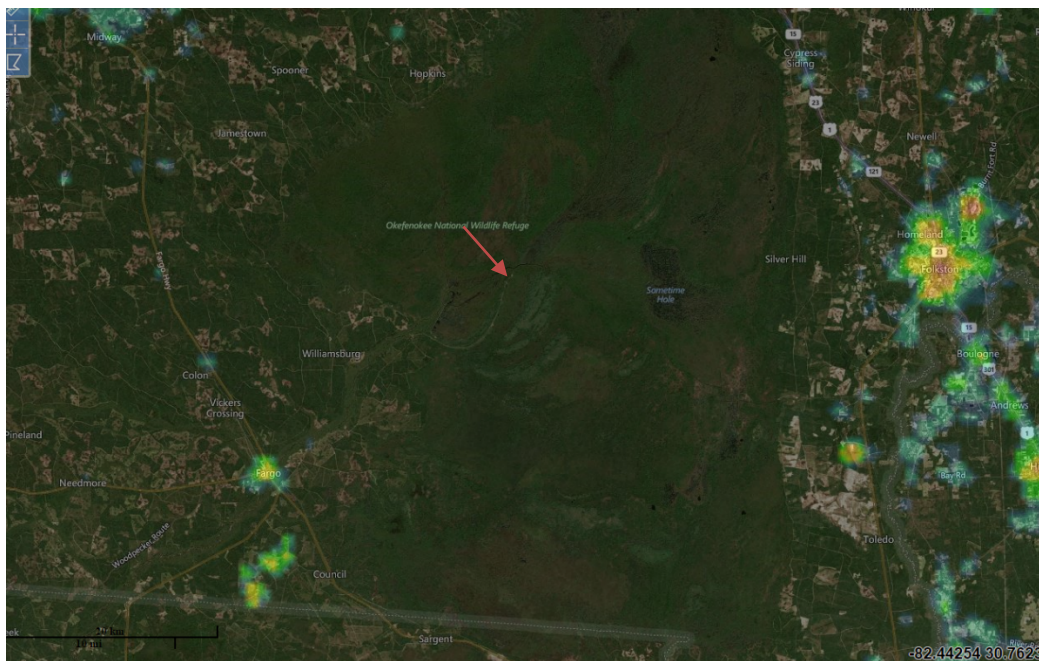
South – 21.87

Note: The park was mostly empty during this set of measurements.

Pre right reduction map of the refuge and park:



Post light reduction map of the refuge and park:



Source: <http://www.lightpollutionmap.info>

Programs Offered at Stephen C. Foster

Discussion of Dark Skies

At Stephen C. Foster the topic of Dark Sky and certification are discussed on a near day to day basis. One of the best examples is at our Astronomy programs where we show and tell visitors that we can see parts of the sky such as the Andromeda Galaxy that, while we are able to see it while there is light pollution that, through the efforts that we have taken we are able to see it clearer and more colorfully. That is not the only time though, at every campfire the ranger leading turns out all lights to show the sight of the sky filled with twinkling stars that most visitors would never have the chance to observe in their everyday life, and visitors have stayed after night programs or have approached some of the rangers the next day about how much they love being able to witness the sort of majesty that they are only able to see due to our efforts and dedication to the Dark Sky program. People may come to Stephen Foster for the waterfront, but they never forget their time here among the stars.

We are constantly reinforcing the benefits of Dark Sky and general dark nighttime conditions. In most every program from guided hikes to animal lectures we discuss how all life both flora and fauna is affected by light pollution. On a daily basis and in most of our programming we discuss Dark Sky. We try to help people understand that everything exist on a schedule of light and dark and light pollution effects the circadian rhythm. We strive to include the impacts of light pollution as a theme on a daily basis.

Astronomy

We offer public astronomy programs a few times every month. At times these programs attract more than 100 people. These programs give anyone the opportunity to learn a little bit about the universe from the interpretive staff. We discuss stars, constellations, planets, the moon and anything else that might come up as it relates to astronomy. We also give the participants the opportunity to view objects through our telescopes. We view planets, stars, the moon, and even deep space objects on clear nights. At the beginning of every astronomy program we discuss light pollution and what it is, its effect on wildlife and people, and Light pollutions effect on astronomy viewing.

We also offer astronomy programs for private groups. We have seen participation from public schools, private schools, scout groups, and church groups. Along with the viewing of objects through the telescope and talking about constellations, we also get the children involved in additional activities that relate to astronomy. We take a planetary walk that shows the children the scale of our solar system and also gives them a few fun facts about each planet. We also provide an activity that explains the moon phases using a volleyball and flashlight. Examples and explanations of these activities are below.

Moon Phases

This activity involves using a volleyball and a flashlight to represent the moon and the sun, respectively. One of the guest represents the Earth. A guest is elected to be the sun and hold a flashlight pointing straight the entire time. The Ranger then walks around the students with the volleyball stopping and explaining which phase the moon is in at that particular spot. This is easier to understand using the visual aid to the right. Imagine the sun is the person holding the flashlight and the moon is the volleyball. As you can see this activity effectively shows all of the moon phases: new moon, waxing crescent, waxing half, waxing gibbous, full moon, waning gibbous, waning half, and waning crescent.

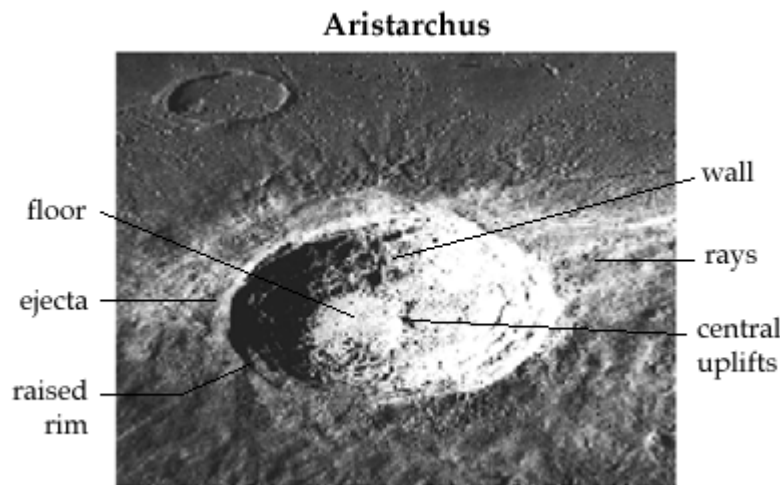
Planetary Walk

This activity involves passing out twelve cards to guest each with separate facts about planets, dwarf planets, the sun, or other stars. We set a small flashlight on the ground and tell the guests that it represents the sun and that at this scale the sun would be about the size of a foosball. Each card has a number of steps on it, which represent the amount of distance from the sun at this scale. As a group we take steps away from the sun, stopping at each “planet” and telling a few facts about that particular planet. At this scale Pluto ends 243 steps from the sun. We go on to tell the guests that at this scale the next star would be about 629 miles away from Pluto. This activity gives our guest a visual aid to how spread out the solar system is.



Co-Co Craters

This activity starts with a pan of flour about three to four inches thick with a thin layer of powdered chocolate on top to give a dark appearance. The Ranger tells the guest that this pan now represents the surface of the Moon. Depending on group size the Ranger or Guests will throw rocks into the flour pan making craters. The ranger then uses the flour crater to explain how moon craters are made and the different parts of the Moons impact craters the floor, wall, raised rim, and rays.



Sunset Boat Tour

Another program that we provide is a sunset boat tour. We are one of the main entrances to the Okefenokee Swamp and many people want to take advantage of the opportunity to go out in the swamp at night. While this tour doesn't always relate directly to astronomy, many times on clear nights we will talk about the stars, constellations, light pollution, and the importance of darkness to many of the animals that reside in the swamp. Without the lack of much light pollution in the swamp these tours would not be the same.

Campfire

A program that we offer about every week is a campfire on Saturdays. At these programs a mix of singing and dancing, as well as stories are offered to help people relax and unwind after a week of work or travel. People often times end some of the activities with a big smile on their faces because they were able to step out of their usual comfort zone while surrounded by a group of strangers and they were accepted as part of the group. One of the biggest parts of these campfires is when the ranger that is leading the fire turns out all lights and lights the fire. This is done for a variety of reasons but one of the biggest reasons is to show the large quantity

of stars that are able to be seen from our amphitheater then there is almost no other lights around. For the most part actual astronomy is not discussed but guests enjoy being able to look up at the same skies that they see at home, but this one is filled with dancing points of lights.

Daily Boat Tours

Park Guest can take a guided excursion into the great wilderness of the Okefenokee Swamp multiple times a day, every day. On our guided tours passengers can watch and photograph wading birds, alligators, and other wildlife. During the tour we discuss all of the parks major themes including light pollution and its effects on wildlife.

Days Gone By: Living History

In our Days Gone By program park visitors can interact with a ranger dressed in 1830's period swamp setter clothing. In this program we talk about early swamp history and how the environment used to be completely free of any light pollution. We always conclude this program with a black powder demonstration, by firing a double barrel black powder shotgun.





Light Pollution Advisory

Here at Stephen C Foster state park we have made a commitment to reduce our light pollution levels. In order to accomplish this and become dark sky certified we need your help. It is important to us to become dark sky certified as this means we are one of the rare locations where the night sky can be viewed at its most natural state. This gives you, the visitors to the park, the opportunity to participate in our astronomy programs, capture dark sky photography, and enjoy the night sky in your recreational time. We ask you to aid us in this initiative by reducing your light pollution in the park. In order to do this we ask that you please keep the lighting to a minimum from dusk to 10 pm. Following this we ask that you please turn off all unnecessary lighting from the hours of 10pm- 7am. This is in accordance with our quiet hours as well. We appreciate your contribution to the park and hope that you enjoy our beautiful night skies.

Telescopes

Stephen C. Foster State Park has 2 Orion SkyQuest Dobsonian telescopes: an 8" and a 10". We also use two Celestron NEXSTAR 8SE telescopes. Having a variety telescopes and eye pieces lets us view the moon, planets, stars, and even deep space objects. Having this number of scopes helps us acomadate larger groups of attentive park guest who are eager to learn about the cozmosp.



8"



10"



Photos from park guest









Community Projects

Stephen C. Foster is Dedicated to public education on the topic of Dark Sky. We want our designation to become an example to Georgia and North Florida. Furthermore, we want to encourage other parks, communities, and places to follow our lead and reduce their light pollution and possibly become dark sky places as well.

According to IDA Dark Sky Program Guidelines, Stephen C. Foster State Park falls under the qualifications of;

“Producing at least one “night sky friendly” lighting project that is publicly visible and interpreted.” **AND**

“Inventorying and monitoring night sky quality and using results to educate the public.”

In February 2016 the park in co-operation with the local power company Slash Pine EMC removed all but three of the parks street lights and replaced the remaining three with directional LED lamps. This is publicly visible and is interpreted in every night time program offered on the park. Returning park visitors have commented on the “noticeable absence of park lighting” and “the much improved dark night quality”. So far our efforts have been met with benevolent praise and overwhelming support from the park visitors.

Also, we use the Unihedron Sky Quality Meter during our astronomy program for a live look at the sky quality. We then explain what the number means and how it is observable proof of the parks sky quality. Afterwards, we have everyone turn on their flashlights and point them into the sky and measure again to see how even just a few flashlights degrade the night sky quality. During our light pollution talks we encourage park visitors to evaluate the needless lighting at their own homes and community. Many of the park guests leave with a desire to get home and take a look at their own lighting situation.

Additionally, the park has purchased an 8X12 trailer for our observing equipment, so we can now branch out and provide astronomy and light pollution programs at other places across South Georgia.

Park Management documents regarding Night Sky

The parks governing documents are the Business Management Plan and the Interpretive Action Plan. From this day on the governing documents in regards to lighting and other night sky priorities will be the lighting management plan and other plans included in this application. Our Dark Sky efforts meet or exceed the guidelines laid out by the parks governing documents.

Stephen C. Foster State Park is scheduled to renew and revise our Business Management Plan in the year 2020. When the revision takes place we will include a clear declaration of night sky importance. The declaration will identify the parks priority to proactively manage lighting to the best of our ability in order to preserve natural darkness as much as possible. The parks Interpretive Action Plan already mentions Astronomy related themes.

Our current business plan includes an Inventory and Classification of Programs and Services section, found on pages 10-11 of the Business Management Plan, which we use to justify our dark sky effort.

The following is an excerpt from pages 10-11 of the Business Management plan.

Inventory and Classification of Programs and Services

Programs and services are classified into one of three major categories:

1) Core or Essential Services

2) Important Services

3) Visitor Supported Services

Programs and services at the site are classified into these categories based in part on the mission and public mandates for both the site and the agency. For the services in each of these categories, there are financial performance expectations that will define how services are funded and evaluated.

Category 1 – Core Services [Largely supported by tax funds]

Core programs, services and facilities are those the agency must provide and/or are essential in order to capably govern and meet statutory requirements. The failure of the agency to provide Category 1 services at adequate levels could result in significant negative consequences for the public and the resources under protection. The criteria for services to be classified as core or essential are:

- The services are mandated by the agency's law or charter or are contractually obligated by agreement to provide the services.
- The services are essential to protecting and supporting the public's health and safety.
- The services protect and maintain valuable assets and infrastructure.

- The services would generally and reasonably be expected and supported by residents, businesses, customers and partners.
- The services are those that cannot or should not be provided by the private sector.
- The services provide a sound investment of public funds.

Category 2 – Important Services [Supported by a balance of tax funds and earned revenues]

Important programs, services and facilities are those the agency should provide, and are important to governing and effectively serving residents, businesses, customers and partners. Providing Category 2 services expands or enhances the agency's ability to provide and sustain its core services. The criteria for programs or services to be classified as important are:

- The services expand, enhance or support identified core services.
- The services are broadly supported and utilized by the community, and are considered an appropriate, important, and valuable public good. Public support may be conditional upon the manner by which the services are paid for or funded.
- The services generate income or revenue that offsets some or all of the operating cost and/or are deemed to provide economic, social or environmental outcomes or results.

Category 3 – Visitor Supported Services [Almost exclusively supported by earned revenue]

Visitor supported programs, services and facilities are those discretionary services that the agency may provide when additional funding or revenue exists to offset the cost of providing those services. Category 3 services provide added value above and beyond what is required or expected. The criteria for programs or services to be classified as visitor supported are:

- The services expand, enhance or support core services or important services and the quality of life of the visitors, community or stakeholders.
- The services are supported, valued and provide an appropriate and valuable public benefit.
- The services generate income or funding from sponsorships, grants, user fees or other sources that offset some or all of their cost and/or provides a meaningful return on investment.
- The services can possibly be provided through outsourcing or use of concessionaires, providing opportunities for community enterprises that may not otherwise be provided by the agency.

The Business Management Plan Includes Key recommendations for Park Operations.

The following is an excerpt from pages 5-6 of the Business Management Plan.

Key Recommendations

Primary / Short Term Recommendations

1. Operate the site using cost-based accounting, including the net cost recovery achieved annually.
2. Conduct in-park surveys annually to assess how well customer satisfaction levels are being met. Stephen Foster should strive to have 90% of visitors responding to 'Comment Cards' report that they were either 'satisfied' or 'very satisfied' (or some comparable metric to be developed). Programs or services that fall below that standard should be critically reviewed, enhanced, and results monitored; those with a history of poor performance should be considered for elimination.
3. Evaluate and pursue opportunities to employ concessionaires or private or public service providers on-site if they can be more cost-effective. For example, explore the development of a concessionaire agreement to manage private events on-site.
4. Collect a statistically-valid sample of ZIP code data from visitors in a non-intrusive way to gauge their origins and demographics (e.g., age, ethnicity, income, etc.) and use the results to improve programming and marketing efforts to appeal to a broader audience.
5. Utilize a minimum of six special events annually to help draw more visitors to the site.
6. Seek local partners to help support operations, programs, and service delivery and for cross-marketing purposes.
7. Sustain sufficient non-labor operational funding or reduce staff so that required staff operational costs (with benefits) do not exceed 65% of the total operational budget.
8. Enhance facilities and program offerings to provide a minimum of 10 unique experiences for each visitor while maintaining at least a 90% customer satisfaction rating.
9. Manage Stephen Foster according to well-defined maintenance, program and operational standards monitored and enforced by region managers and senior management.
10. Partner with local Chambers of Commerce or other destination marketing organizations (DMOs) to promote Stephen Foster.
11. Perform a thorough net cost-of-service analysis on major functions of site operations, including the detailed analysis of labor requirements (by task) that has already been produced by site staff. Thereafter, update costs to deliver services on a biennial schedule.
12. Review and update rates at the site on an annual basis to recover the total net cost of service for important and visitor-supported services.

13. Track total economic impact of the site on the local communities and region and share with decision-makers, elected officials, local business operators, and others to demonstrate the impact of Stephen Foster.
14. Develop a more detailed analysis of labor requirements of all major park functions to match the right position with the right job at the right pay.
15. Develop funding to provide additional training to site staff for improved business management and marketing effectiveness.
16. Construct and upgrade facilities and amenities at the site that are likely to have a cost recovery level at or above 100%. Suggestions include adding renovate the current cabins in park, start providing rental of canoes at the visitor center, build new office for retail and museum combined.
17. Add more youth-focused services, programs and amenities at the site that appeal to younger audiences, families and educational groups.
18. Add more services, programs and amenities that appeal to older adults.
19. Develop partnerships with canoeing/kayaking outfitters using the park and Eco-Lodge as a staging point for excursions.
20. Promote the park as the premier astronomy viewing destination in the Southeast. Market viewing opportunities astronomy clubs and university classes using direct contacts and social media.
21. Promote the Eco-Lodge as an outdoor education venue for public schools, universities, and environmental interest groups.
22. Lease the operation of the Eco-Lodge to a private vendor.

Secondary / Long Term Recommendations

1. Improve the recreational amenities of the site to address modern and diverse uses.
2. Install an improved retail point-of-sale and inventory tracking system.
3. Replace the current Office/Visitor Center/Boat Rental buildings with a combined Visitor/Interpretive Center containing administrative areas, boat rental, displays, theater, resale area, astronomy viewing, and wildlife viewing areas. Connect new facility with an extended nature trail with viewing platforms and fishing docks that reaches to the open water of Billy's Lake.

The amount of park visitation that we get allows us to use all three types of services outlined in the business management plan.

The following is an excerpt from page 1 of the parks Interpretive Action Plan FY-16

Program Attendance	FY13	FY14	FY15
Public Interpretive	99	379	517
Group Tour	1708	4368	3906
Special Events **	166	822	391
School Programs	79	222	196
Outreach Programs	NA	NA	150
TOTAL PROGRAM ATTENDANCE	2875	4554	4946

Recreational Amenities	FY13	FY14	FY15
Bike Rentals	37	63	111
Boat Rentals	5279	7583	5483
Fishing Loaner Program	NA	NA	NA
Disc Golf	NA	NA	NA
Miniature Golf	NA	NA	NA
Other:			
TOTAL RECREATION RENTALS	5316	7646	5594

TOTAL PARK ATTENDANCE***	7368	13437	105185
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The park uses the Interpretive Action Plan to guide all of the parks interpretive efforts throughout the year, including those related to dark sky.

The following is an excerpt from page 3 of the parks Interpretive Action Plan FY-16

Program Goals for 2016

Program Goal 1:

Start River Paddles

Actions needed to accomplish this goal

- Attain a probable solution for shuttling attendees of Suwannee River paddles. (Bryan, Michael, June 2016)
- Attend the ACA canoe & kayak workshop. (Sarah, Before December 2016)
- Secure Location for putting in on the Suwannee River. (Michael, June 2016)

Program Goal 2:

Continue to Expand the Astronomy Programs

Actions needed to accomplish this goal

- Train Naturalist on Astronomy Programing. (Michael, Sarah, January 2016)
- Obtain Dark Sky Designation (Michael, July 2016)
- Outreach to local and state colleges to offer programs for students. (Michael, July 2016)

Program Goal 3:

Create and promote off park program Offerings. (School, Scout, & General public).

Actions needed to accomplish this goal

- Write and develop a brochure and advertisement material. (Michael, Sarah, February 2016)
- Establish a rate Sheet for in school and off park programs. (Michael, Sarah, February 2016)
- Establish a schedule calendar for off park programs. (Michael, February 2016)
- Create a fun and educational in school program. (Michael, Sarah, January 2016)
- Create a display and a “Load & Go” box for off park programming. (Michael, January 2016)
- Advertise on Internet. (Michael, Sarah, January 2016)
- Contact local school officials to promote and schedule in school programs. (Michael, March 2016)
 - Clinch Co.
 - Lowndes Co.
 - Valwood
- Contact local Scout Masters to promote and schedule off park scout programs. (Michael, Sarah, March 2016)
- Create a “virtual” field trip. (Michael, Sarah, Sam June 2016)

Program goal 4:

Create and implement living history programs.

Actions needed to accomplish this goal

- Acquire period clothing for Interpretive Ranger and Naturalist. (Michael, December 2016)
- Get an “OK” from refuge about Black Powder (Michael, December 2016)
- Attend Black powder Training (Michael, Sarah, February 2016)

Nighttime Public Access Policy

NPAP-1 Statement

At Stephen C. Foster State Park we are dedicated to the education and access of our park guest. We are also equally committed to providing a quality environment to the animal life of the area.

NPAP-2 Dusk Hours

During the dusk hours park visitors and campers are free to roam around the park at will, and enjoy the night sky until 10:00 PM.

NPAP-3 Curfew

To give the nocturnal animals of the park time to move freely without human interruption we have a quiet time curfew from 10:00 PM until 7:00 AM. At 10:00 PM all park visitors not staying the night are required to leave the park. Campers are asked to be confined to their site with a minimum amount of noise. Campers are encouraged to enjoy the dark sky from their site.

NPAP-3 Astronomy Pass

The park offers a free astronomy pass which allows them to be out past curfew for astronomy related purposes. An astronomy pass can be seen on the next page.

Stephen C. Foster State Park

Astronomy Pass

This pass allows the holder to remain at the cul-de-sac at the end of the road for astronomy related purposes after curfew.

Pass holder you are allowed to be out after curfew for observation and photography with a minimum amount of noise. This allows you Travel to your site after curfew only as needed with minimum trips.

Staff Signature_____ Date_____

Light Management Plan

LMP-1 Statement

Since the dawn of time all life on earth has existed with a regular schedule of light and dark which was day and night. This balance gave life a schedule there was time to eat, time to rest, and a way to navigate. A great number of this life comes out at night to feed and breed without fear of harassment from the predators that hunt in the light but there were a few that became awe-inspiring nocturnal hunters relying on low light vision, a magnificent sense of hearing, or even echolocation. All this is being interrupted by light pollution.

Light pollution is the excess artificial light produced by any light source that is not natural. Light pollution limits or all together destroys the natural cycle of life by adding light where there should be none. This light pollution attracts some species making them easy prey or repels other species creating habitat loss, or just resulting in a trap which exhausts and kills them. Our artificial lights at night seriously constrain their lives, exposing them to predators and reducing the time they have to find food, shelter, or mates to reproduce. Humans also suffer from the effects of light pollution as it disrupts the natural circadian rhythms and sleep cycling of our bodies. This is especially prevalent in bigger cities, as people do not have control over their exposure to large sources of light, such as Times Square in New York City.

Light pollution is also detrimental to the viewing of celestial formations, as light pollution in many cities disrupts the ability to clearly view constellations. This harms our understanding of astronomy and limits the public's viewing of such events as meteor showers, planetary viewing, and star gazing. According to International Dark Sky Association, following an earthquake in Los Angeles in 1994 concerned residents contacted emergency services upon viewing the Milky Way for the first time. The large silvery veil in the sky alarmed many who had not viewed the celestial body before.

In response to these factors Stephen C. Foster State park is committing to doing our part to end light pollution. Through education and reducing our own light pollution footprint to a minimum we hope to make a positive impact on the environment, wildlife, ourselves, and guests that visit our park. The default policy of Stephen C. Foster State Park is to not use a light unless a specific safety concern dictates otherwise. The park will only use light when it is needed, where it is needed, and in the appropriate amount. Stephen C. Foster is currently 93% compliant with the Light Management plan and will replace all lights that are not motion sensor activated by December 2017, with motion sensor activated LED lights.

LMP-2 Acceptable Light sources

- LED light, LED light is directional and less disruptive
- Fully shielded light that only shines downward, directional

- Lights beneath overhang, directionally limited by structures
- Special purpose lights, necessary for security or safety
- Lights attached to the flag for illumination
- Lights that emit red or amber in color.
- Lights that are connected to a motion sensor and are off unless motion is detected.
- light this less than 3000k
- light that is less than 500 lumens

LMP-3 Facilities

At Stephen C. Foster there is a quiet time / curfew that restricts the movement of people throughout the park after 10:00 pm. Any travel after dark is discouraged as a result any unoccupied area after dark will not be illuminated.

All Outdoor lighting should be fully shielded and make appropriate use of timers and motion sensors regardless of lumens and kelvin of the light.

Day Use Areas: Day use areas will not have any illumination.

Office: The front office will use the minimal amount of light necessary for security with an approved light source. Any lights on the office will be LED and attached under the roof overhang to prevent the light from escaping into the sky.

Cottages: The cottages will only be illuminated with motion sensor equipped LED lights that are off when no movement is detected. The cottage area will have 3 LED street lights for safety and security purposes.

Campsites: The campsites including Campground Host sites will not have any illumination. Campers and Campground Host will be allowed a minimal amount of light to see the campsite for safety and security. Excessive lighting or overly bright lights on campsites are not allowed to preserve the quality of the night sky over Stephen C. Foster and limit the light pollution emitted

from the Campground. Fully shielded lights or red or amber lights are recommended. Strands of decorative lights are permitted as long as they are not excessively bright. Passive Interpretation in the form of signs and flyers will be used to educate campers on light pollution.

Comfort Stations: Comfort stations will use the minimal amount of light necessary from an approved light source. Lights around comfort stations will be on motion sensors with the visible interior of the Comfort Station lit with amber or red lights.

Staff Residents: Will only have a minimum amount of approved lights.

Parking Lots: Parking Lots will not have any illumination.

Roadways: Roadways will not have any illumination. The use of motor vehicle headlights are recommended.

Pathways: Pathways will not have any illumination. Campers can use flashlights or star/moon light.

Cul-De-Sac: the cul-de-sac is used as the astronomy area therefore there will be no illumination permitted.

Signage: No signs will be illuminated. Signs on the park are recommended to be retro-reflective.

Flag pole: The flag will be illuminated at all times during the night bright enough to see the stars and bars on the U.S. Flag and state seal on the flag of the great state of Georgia.

After Designation Responsibility

After obtaining the IDA designation as a Dark Sky Park, the park interpretive staff will be responsible for monitoring and maintaining the Dark Sky status. This includes but is not limited to erecting and maintaining a IDA signage, conducting the annual review to the IDA, reaching 100% lighting compliance, and provide continuing education on light pollution and Dark Sky.

After designation the park will be required to erect signs that include the dark sky logo and text. The main park entrance sign will be remade to properly reflect our designation. The park sign will include the park name, IDA text, IDA logo, and our Dark Sky quality tier. Additional signage may be erected in addition to the entrance sign in locations like the front office. The current entrance sign is pictured below.



An annual review to the IDA will be completed by the parks interpretive staff by October 1st of each year. This review will include a detailed report that the park is continuing to achieve the goals of the IDA. The review will also include documentation that shows that the park continues to hold Dark Sky as an interpretive priority in all of the parks programs and that the park continues to provide Dark Sky Programming.

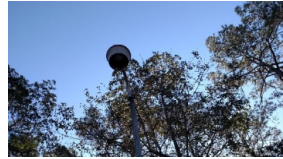

Additionally, Park staff will achieve 100% compliance with the Lighting Management Plan within 5 years. Within 5 year all of the unnecessary outdoor lighting will be taken down. Any remaining outdoor lights







that do not conform to the Lighting Management Plan will be retrofitted with new lights that are appropriate.


Stephen C. Foster State Park as of this day and age is dedicated to the education of park visitors and community on the topics of Dark Sky. Dark Sky interpretation will always be a principal theme in the future.

Lighting Inventory

Location	Fixture	Fully-Shielded	Special Purpose <1000 lumens	Application	Conformity with LMP	Photo
Amphitheatre	Quartz light	No	No	Activity Light	No	
Cabin 1	Motion Sensor Equipped LED Light	Yes	Yes	Security Light	Yes	
Cabin 2	Motion Sensor Equipped LED Light	Yes	Yes	Security Light	Yes	
Cabin 3	Motion Sensor Equipped LED Light	Yes	Yes	Security Light	Yes	
Cabin 4	Motion Sensor Equipped LED Light	Yes	Yes	Security Light	Yes	
Cabin 5	Motion Sensor Equipped LED Light	Yes	Yes	Security Light	Yes	
Cabin 6	Motion Sensor Equipped LED Light	Yes	Yes	Security Light	Yes	

Cabin 7	Motion Sensor Equipped LED Light	Yes	Yes	Security Light	Yes	
Cabin 8	Motion Sensor Equipped LED Light	Yes	Yes	Security Light	Yes	
Cabin 9	Motion Sensor Equipped LED Light	Yes	Yes	Security Light	Yes	
Dump Station Light	60 Watt Light Bulb	No	No	Illuminate the Dump Station	No	
Comfort Station #1	60 Watt Light Bulb Shielded By Eve	Yes	No	Safety and Security	Yes	
	60 Watt Light Bulb Shielded By Eve	Yes	No	Safety and Security	Yes	
	60 Watt Light Bulb Shielded By Eve	Yes	No	Safety and Security	Yes	
	60 Watt Light Bulb Shielded By Eve	Yes	No	Safety and Security	Yes	

Comfort Station #2	60 Watt Light Bulb Shielded By Eve	Yes	No	Safety and Security	Yes	
	60 Watt Light Bulb Shielded By Eve	Yes	No	Safety and Security	Yes	
	60 Watt Light Bulb Shielded By Eve	Yes	No	Safety and Security	Yes	
Cottage Street Lights	Fully Shielded LED Street Lights	Yes	Yes	Security Light	Yes	
	Fully Shielded LED Street Lights	Yes	Yes	Security Light	Yes	
	Fully Shielded LED Street Lights	Yes	Yes	Security Light	Yes	
Flag	Spotlight	Yes	Yes	Make the Stars and Bars Visible	Yes	

Staff House Duplex	Motion Sensor Equipped LED Light	Yes	Yes	Security Light	Yes	
Asst. Manager House	Motion Sensor Equipped LED Light	Yes	Yes	Security Light	Yes	
Trading Post	70 watt sodium vapor	No	No	Security Light	NOT WORKING	
Trailer 1	60 Watt Light Bulb Amber In Color	No	No	Front Porch Light	Yes	
Trailer 2	60 Watt Light Bulb Amber In Color	No	No	Front Porch Light	Yes	

Appendix 1

At the request of the IDA, we have included pictures of the light domes produced by Waycross Georgia and Jasonville Florida on July 9th, 2016.

Waycross, Georgia

The photo was taken facing north. The camera used was a Nikon D7100 APS-C with a Tokina 11-16mm AT-X Pro DX II. The camera settings were 25 seconds. F/ 2.8 ISO1250 11mm



Jacksonville, Florida

The camera used was a Nikon D7100 APS-C with a Tokina 11-16mm AT-X Pro DX II. Photo was shot facing Southeast with settings at: 25 seconds F/ 2.8 ISO1600 11mm.



Appendix 2

Additional Information about the flag pole light.

The light that we currently have on the flag pole is a vast improvement over the original. The original lighting consisted of two bright spotlights. The lighting replacement that is currently on the flags is a pole mounted, bottom up light, that is 56 lumens. Details below retrieved from <http://www.naturepowerproducts.com/product-details.php?id=104>

Product Number: 22015

UPC Number: 839290002292



- › Material: Plastic and Aluminum
- › Color: Black
- › Solar Type: Amorphous
- › Solar Watts: 1 Watt
- › Brightness: 0.14w - 56 Lumens
- › Battery Type: 2x 800mAh 3.2V
- › Runtime: 8 Hours

In the future we plan on mounting a top down flag pole light.

Night time flagpole photos

This photo was shot facing south with settings at: 30 sec. F/ 2.8 ISO2500 11mm

