

ENVIRONMENTAL COMMITTEE MEETING
Kiawah Island Municipal Center
Council Chambers Meeting Room
May 8, 2018; 2:00 PM

Minutes

I. Call to Order: *Mr. Jordan called the meeting or order at 2:00 pm.*

II. Roll Call:

PRESENT: Jim Jordan, Chairman
Jim Chitwood
Lynne Sager
Jane Ellis
Lynette Schroeder
John Leffler
Michael Guniczak
Pam Wilson
Jack Kotz
KICA: Matt Hill
ARB: Sara Senst
KIGR: Liz King

ABSENT: Jim Sullivan
Scott Nelson
Beverly Gholson
KINHC: Justin Core
TOKI: Aaron Given

ALSO PRESENT: Diana Mezzanotte, *Council Liaison*
Lauren Rust, *Lowcountry Marine Mammal Network*

III. Approval of Minutes:

A. Environmental Committee Meeting Minutes of March 13, 2018

Ms. Schroeder made a motion to approve the minutes of the March 13, 2018 Environmental Committee meeting. The motion was seconded by Mrs. Sager and was unanimously approved.

IV. Reports:

A. Town of Kiawah Island

✦ **Bobcat GPS Study**

- Three bobcats captured (2 GPS)
 - Bobcat 150 – 3/23 – Juvenile Male – 20 lbs. 1 oz. – Ocean Park - Recapture
 - Bobcat 5 – 3/23 – Juvenile Male – 12 lbs. 4 oz. – The Preserve – New - No GPS
 - Bobcat 750 – 3/23 – Adult Male – 20 lbs. 12 oz. – Parkside Villas – New
 - Bobcat 450 – 3/24 – Subadult Male – 19 lbs. 9 oz. – Parkside Villas – New
- Female 250 – collar fell off – could not locate den
- 4 males left

✦ **Alligator Research**

- Collaborative research project with Clemson/Nemours
 - 10 to 12 Alligators captured
 - 6 gators tagged with green Clemson tags

- Kiawah tags – males are blue, females are yellow
- PHD study will have online mapping site
- A BBC (British Broadcasting Corporation) Film crew on Kiawah filming alligators for a large scale international documentary – focusing on golf courses

✚ Painted Buntings

- Collaborative study with Smithsonian Migratory Bird Center
 - Geolocators placed on 25 Painted Buntings in 2017
 - One Painted Bunting with re-caught last week with Geocator
- SC Wildlife featured a Painted Bunting on the cover with article on Aaron's research

B. Kiawah Island Community Association Land & Lakes Management

Mr. Hill stated that he chose not to move ahead with the company that wanted to use one of the ponds to test new technology to deal with harmful algae blooms. The information available on the company's website was lacking in detail and he was not comfortable with allowing the field testing.

C. Kiawah Island Golf Resort

Ms. King reported the assembly of the summer activity guide was underway and would include information on the Island's wildlife issues. There will be three to four segments to give the public information on the Turtle Patrol and tips on beach and wildlife etiquette.

Mr. King stated that working with the Conservancy on their trash pick-up initiative called to her attention the amount of trash that is located on both sides of the Kiawah Island Parkway between Freshfields and Beachwalker Drive. Presented to the Committee were several items which were picked up on the way to the meeting which included bottles, planters, wrappers and a bag of trash. Mr. Lameo confirmed The Greenery picks up the trash along the Parkway but does not go into the marsh where a lot of the trash ends up. She suggested that the trash cans located at the bridge and along the Parkway be replaced with a larger one that has a lid and possibly increasing the Greenery pick-ups.

Ms. King reported that the red flashlight filters were now available at the Nature Center and were free of charge.

Ms. King reported the Lowcountry Marine Mammal Network will be have an education seminar open to everyone on Thursday May 31st at Mingo Point at 1:00 pm. The talk will be aimed at making sure that tour operators and the public are operating in a manner that is sensitive to the dolphins.

D. Kiawah Island Architectural Review Board

None

E. Kiawah Conservancy

Ms. Ellis reported that the Conservancy held their Executive Board meeting that morning and the full Board would be meeting on Tuesday. She noted that the Earth Day event sponsored by the Conservancy was a tremendous success and had great participation.

F. Turtle Patrol

Mrs. Sager stated that nesting patrol began on May 1st with nothing to report so far. She

noted that Daufuskie Island reported the first nest of the season this morning.

Mrs. Sager stated that the Turtle Patrol has been working on a campaign to help reduce the number of wild nests called “See Something / Say something.” Flyers will be distributed to drivers on the beach to help educate them during Turtle Patrol Season.

V. Old Business

A. Environmental Program Funding Updates

Ms. Juliana Smith with the Outdoor Wildlife Lessons in Science (OWLS) Outreach Program reviewed the summary and update of the first year of the OWLS program.

i. OWLS Program

OWLS (Outdoor Wildlife Lessons in Science) is a new program started this 2016-2017 school year with the help of a TOKI Environmental Initiative Grant. Its goal is to provide local students repeated opportunities to visit Kiawah Island and explore science through their native habitats. Some additional hoped-for side effects are:

- 1) Creating opportunities for local students to become invested in the management and conservation of their local wild places.*
- 2) Creating opportunities for local students to develop a passion for science careers and potentially return to our area to execute those careers.*
- 3) Create opportunities for Kiawah Island’s community and businesses to invest in its local community.*

In the first school year, we have thus far completed four OWLS programs. The first semester reached 21 local Dual Credit Biology students and the second semester reached 30 Marine Science students. All students are from the local high school: St. Johns High and are students of Mrs. Melissa Davis. While we’ve reached 51 students this semester, the anticipated number of reached students at the time of grant application was 90 students. This number remains the anticipated number of students for the 2017 – 2018 school year. Unfortunately, Melissa does not know how many students will ACTUALLY be in her classes until a couple of weeks prior to the start of each semester. As such, we prepare for the most potential number during grant application time.

Each program is built to introduce the students to the three primary habitats of Kiawah Island: 1) Beach and Sand Dunes, 2) Maritime Forest, 3) Salt Marsh.

The programs cover science topics ranging from simple Order categories to chemical analysis of soils and water. At every possible opportunity, the students are given hands-on activities to interact with both the lessons and the habitat around them. Both students and guides have contributed to a blog regarding their experiences during the program. If anyone is interested in reading the blog, it can be found at owlsgroup.wordpress.com

This year has seen great success thus far! Our first semester students so enjoyed the program that two became interns at the Nature Program. These young women both aspire to work in the biological sciences field and want to learn about the local animals here on Kiawah Island. We also saw gracious volunteerism from both the TOKI and KIGR communities. Wildlife Biologists Jim and Aaron offered their time during one of our programs to do a Bird Banding demonstration. When surveyed, almost every attending student reported this was their favorite part of that day’s program. Teresa Keller and Jason Cote (of KIGR) organized donated boxed lunches from KIGR’s catering team. These were presented during the students’ last program. Such examples of compassion shown towards our local students not only helps students feel comfortable and accepted on our often-perceived exclusive island but also shows them the support they have in their own communities regarding the success of their education!

There are yet two more programs scheduled before the end of the school year, one on April 25th and the other on May 16th. It is hoped that Clemson professor and naturalist, Drew Lanham, will attend and speak to the students for the final program. We are waiting to hear from his people to plan this if he’s available. However, regardless of his attendance this year, we hope to utilize more local naturalists and biologists to speak with students and offer not just scientific information, but role-models and inspiration as well.

As of today, April 21st, \$1,412.06 has been spent on the OWLS program. The rest is slated to be spent on transportation costs, lunches, and materials before the end of the school year. A final report will be drawn up and submitted prior to August 15th per the grant requirements.

ii. Lowcountry Marine Mammal Network

Ms. Lauren Rust with the Lowcountry Marine Mammal Network reviewed the updated “strand feeding” project funding application answering questions from Committee Members.

Kiawah Island dolphin education program mid-year report July 1-May 1, 2018

A summary of the activities of the Kiawah Island dolphin program are included here. LMMN started the program in September 2017 running through August 2018.

Original Sept '18-Aug '19 Budget

Activity	Time	Est. Cost
Beach observations (48 total)	1 x week/12 months	5,040
Weekly maintenance (volunteer and data)	2 hr/week/12 months	960
Travel	66 site visits/68 mi RT/. 54c mi	2,423
Educational Materials		200
Farmer's market booth	2 x month/4 months	600
Presentations	2 x year	90
	TOTAL	\$9,313

Adjusted Sept '18- Aug '19 Budget

Activity	Time	Est. Cost
Beach observations (48 total)	1 x week/12 months	5,040
Weekly maintenance (volunteer and data)	2 hr/week/12 months	960
Travel (adjusted # of site visits)	48 site visits/68 mi RT/. 54c mi	1,763
Educational Materials		200
Farmer's market booth?	2 x month/4 months	0
Presentations- as needed (reimbursed?)	2 x year	0
Adjusted from Year 1 to Year 2		-\$1,000
	TOTAL	\$6,963

Budget Justification:

Beach observations are the main focus of the study. These are beach observations on Kiawah Island only. During these observations, animal behavior data will be collected, and the educator will have the opportunity to talk with the public and answer questions about strand feeding behavior and encourage safe viewing. Observations will last 4 hours a day and will be conducted once weekly (September-August). Interns and volunteers will conduct surveys on the other days, so the week is covered during the peak season. The rate is \$15/hour for the 4-hour observation plus two hours of drive time. Two hours of volunteer and data maintenance per week is \$10/hour. Travel is the government mileage rate and covers the 48 site visits throughout the year (48 observations). More presentations may be conducted based on interest. Educational materials account for brochures and handouts given to beachgoers as well as visitors to the educational booths; printed materials for the educators on the beach. The PI will set up an educational booth every other Monday at Fresh Fields during the peak season to interact and engage visitors about the local dolphins and our mission to protect them. Lastly, presentations will be given to community members and local schools. This number will likely fluctuate with interest.

Presentations typically last about 1 hour with two hours' drive time. There will be no indirect costs for this project.

of Dolphin Sightings: 406 individual dolphin sightings

of people spoken to 1,078

Kiawah volunteer educators: 10

Hours on the beach by educators: 512

Almost all of the interactions have been positive; most of the interactions/harassment come from kayaks. There are a few records of onlookers who want to get close to dolphins but no reports of beach visitors directly interacting with the dolphins (touching, jumping, feeding).

Dolphins were very active from July-October. Dolphin activity slowed significantly after the hurricane and the start of the colder season. Dolphin sightings and # of people have been slow over the winter. Dolphin activity is starting to pick up (April).

Dolphins have been documented avoiding crowds of people on the beach. They will work themselves up the spit towards the ocean to strand feed. I have witnessed dolphins leave the spit after being approached within yards by kayakers. It's obvious the Dolphins are aware of people on the beach and will avoid or change location in order to feed. The Dolphins have been documented "chuffing" or "tail slapping" which are signs of frustration or irritation at kayakers/boaters/beach visitors which are too close or have interfered with feeding.

I have identified 13 regular dolphins that frequent the inlet, 8 of whom we've positively seen strand feeding. Several dolphins have been seen ten times. One is a mother who has been stranding feeding with her calf nearby. There are several other dolphins that have not been identified but we're working on developing their own catalog and sighting histories.

One animal has been documented in Charleston since 1995, is >27years old, has had five calves and was documented strand feeding with her 16-year-old independent calf at the spit. She's been seen over 70 times and is considered a Stono River resident.

Another animal has also been seen since 1995 and has been seen with several calves. She currently has a calf, and we've seen the calf "practice" strand feeding.

Majority of people spoken to are visitors and are happy with the information and followed our guidance. They heard about strand feeding and wanted to see it. Most people arrive at the low time and generally don't stay very long.

Most residents are aware of regulations and follow the guidelines.

Dogs are on the spit almost daily. Most people say they didn't know they couldn't bring them downmixed positive and negative reactions when told they could not have dogs at the inlet. Many people become defensive about this. Hopefully, the new sign will help provide that notice.

Generally, I can say having educators on the beach has had a positive impact on reducing harassment to the dolphins. Most people that visit the spit are visitors and did not know about viewing guidelines. Without an educator on the beach or on days when an educator is not present, there is likely unintentional harassment (approaching dolphins closer than 15yards). Most of the people spoken to are happy to learn more and follow the viewing guidelines thus directly reducing harassment. Much of the harassment comes from kayaks, and more outreach is needed.

Discussion included that a reduction in the amount of harassment charges made by NOAA can be attributed to the impact of the educator program, the addition of the Seabrook education program, and the challenges of signage on the beach.

iii. Kiawah Conservancy

At the last meeting, members requested additional information or an update for the expenditure of the funding that was allocated to the Conservancy for this fiscal year.

Project Updates as of April 30, 2018

Project Title: Bobcat Documentary Filming

The grant amount allocated for the project (\$20,000) was expended in January 2018, for four days of professional filming, audio and crew accommodations (cost \$25,000.00; Neal Communications). An additional \$25,000 (total Project cost \$50,000) will be funded by the Conservancy for editing, audio mixing, color correction and associated in-studio work. Music voiceover production will also occur during this studio time. The documentary is expected to be completed in August 2018 and will be shown at the Legacy Gala (November 11, 2018) and at a Bobcat Symposium, to be held in February 2019

The Conservancy's documentaries continue to extend the Town's efforts to produce and distribute wildlife information to residents and visitors. In addition to public viewing at symposia and Conservancy events, the films have also been distributed to the Town, Resort, and KICA for their use. Prior documentaries have also been made available to local schools and county libraries. The Bobcat Documentary will be similarly shared. Additionally, these films are showcased on the Conservancy website and YouTube channel and have been entered in numerous conversation themed film festivals.

PROJECT TITLE: MARITIME FOREST RESERVE AND "NATURALLY KIAWAH" DEMONSTRATION GARDEN BROCHURES

Proofs have been created for each brochure. Design graphics have been developed, and photographs have been collected from volunteers for publication in each brochure. Brochures will be ordered in May and distributed as outlined (Which will expend the \$2,000 allocated solely for printing). The Maritime Forest Trail (situated directly on the bike path at 133 Conifer Lane) is visited by many residents and guests interested in learning more about Kiawah's natural environment. The naturally Kiawah Garden is also visited by many guests to the Island, as well as residents interested in learning more about landscaping that is beneficial to Kiawah's wildlife. The brochure will provide information on each of these unique project areas to further support the Conservancy's education role to both guests and residents.

Project Title: "Naturally Kiawah" Demonstration Garden

To date, 2017-2018 funding has been used for the following improvements: upgrades to infrastructure, pathway and brickwork (\$558.50); Fall 2017 clean-up and plant installation (\$1,196.25); supplies for GardenKeeper volunteers: lunch program and Spring 2018 planning meeting, volunteer T-shirts (\$573.40); installation of spigot to existing irrigation system (\$49.27).

Remaining work to be done:

Botany Bay Landscaping (anticipated completion – Mid May 2018): Spring 2018 clean-up; the addition of mulch to the entire garden; the addition of gravel / crushed stone to existing paths; installation of dwarf palmettos.

Kiawah Island Golf Resort (anticipated completion – late May 2018): installation of spring/summer annuals (two beds) and native perennials (two beds)

Additional improvement (anticipated completion – late May 2018; order has been placed with Sigh-It-Quick of North Charleston): installation of 22 new plant ID markers.

Although the Garden is intended to be used as a resource for property owner and landscape contractor in support of the Conservancy's Habitat Improvement Program, it is also heavily visited by Island guests and also is the site of monthly "Mornings in the Garden" presentation in the spring and fall, as well as the Conservancy's Earth Day celebration (which was held on April 27) The Garden has also been used for small private events, such as memorial services, and is incorporated in the Resort Nature Program's walking tours. No fees are charged for any of these events or uses.

Project Title: "Naturally Kiawah" Publications

Of the \$30,000 awarded, \$25,040 was applied to the production and mailing of the Summer/Fall (September) 2017 edition of "Naturally Kiawah" magazine. 7,7100 copies of the magazine were printed; copies were mailed to all Kiawah Island property owners, and remaining copies were distributed to the Kiawah Island Golf Resort and various rental outlets for distribution to Island guests. The remainder of the grant funds will be applied to the printing of the updated "Naturally Kiawah" Special Guest Guide. This edition of the magazine, utilized solely for distribution to visitors to Kiawah Island, is currently entering the editing and design process. Photographs and stories have been collected and are currently under review by the Conservancy's Communications Committee. The target date for ordering the Guest Guide magazines is June 1, 2018. After the magazines are received, they will be distributed to the Resort, rental outlets, Freshfields Village and the Town of Kiawah Island Visitors Center.

Project Title: Wildlife Web Cameras

After starting the project with a different contractor, the Conservancy is now working with Progressive Integrations to design, install and perform the necessary IT work to establish a wildlife webcam to be hosted on the Conservancy's website. An HD video camera will be installed at the Town Hall property, in an undeveloped area along a forested buffer, focused on capturing activity at bird feeders, which will be accessible 24 hours a day. If funding allows, and additional "nest camera" at another location on Kiawah Island will be pursued (as planned).

Project Title: TravelStorysGPS Mobile App Tours

The full grant amount has been paid to TravelStorys (total cost of \$5,000) for the development of the kayaking tour focusing on the estuarine and associated wetland habitats of the Kiawah River, in the vicinities of the Kiawah River Bridge, Mingo Point, Andell / Snake Islands and Captain Sam's Spit. Mapping work has been completed, as have the collection of photos for the ten GPS-enabled "story" locations on the app's tour. At this point, the narration of the tour (Script reviewed by Resort Nature Program) has also been recorded and provided to TravelStorys for final production. The tour became available for testing on April 30, 2018. Any revisions resulting from the testing process will be completed, and the tour's anticipated final completion date will be before May 27, 2018, in association with a social media launch/marketing effort associated with the Memorial Day weekend and incoming guest. It should be noted that a number of volunteer play key roles in developing content and providing narration for these tours and the Conservancy is very thankful for their efforts.

Committee members discussed if it would be feasible to monitor the strand feeding with a wildlife web camera to obtain data on the visitor behavior on the beach when an educator is not present.

Mr. Jordan suggested analyzing the data obtained by Ms. Rust over that past year on the strand feeding events on the Kiawah side of the channel, with educators, compared to the Seabrook side of the channel, without educators.

B. Sea Level Rise

Mr. Leffler reported that the subcommittee is finishing the data gathering. Meetings in the month of April included the impact of sea level rise on the natural environment (beaches and marshes). He noted that Dr. Norm Levine with the College of Charleston will be making a presentation of high-resolution elevation/flooding map of the Island. The meetings that follow during the month of June will include work on specific recommendations with a draft of the report expected to be completed in July.

C. Plastics Initiative

Ms. Ellis reported that the second meeting of the committee would be held on Wednesday, May 16th. Work will be done on the goals, objectives and initiatives of the Committee.

D. Kiawah Landscaping Workgroup

Ms. Graybill-Donohoe reported that the kick-off meeting of the workgroup took place on April 30th. Members worked on finalizing the workgroup's mission and goal statement. She questioned if the Committee had ever addressed invasive species that are being introduced to the Island and actively being used in landscape design. Mr. Jordan indicated that the Town directly had not, but felt creating a list would be a good project for the Committee to take up.

E. Shorebird Stewardship Program

Mr. Jordan reported that the Shorebird Stewardship program has volunteers on the beach educating visitors on shorebird nest areas, migratory birds and keeping your distance from flocks of birds. The ten to fifteen educators have been on the beach for a combined total of seventy hours, focusing on the west end in the Spring, shifting now to nesting birds on the east end. The biggest violation seen has been dogs in the critical habitat areas.

VI. New Business

A. None

VII. Citizen Comments:

A suggestion was made to have signage at the end of each boardwalk giving the dog rules as people enter the beach. Mr. Jordan indicated that signage was moved from the boardwalks to marker posts on the beach, which were washed away in the storm. Signage is now located on each of the forty-plus trash boxes, face the beach, and state the dog zone that you are in. He noted that enforcement of the dog ordinance had been increased. Over the past three years 497 warnings have been written to beachgoers, and in the past two weeks, 18 tickets were issued.

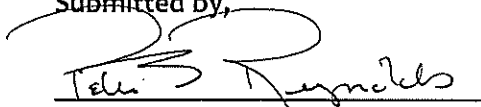
VIII. Chairman's Comments:
None

IX. Committee Member Comments:
None

X. Adjournment:

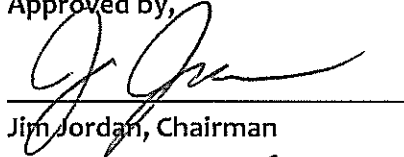
Mrs. Sager made a motion to adjourn the meeting at 3:00 pm. The motion was seconded and unanimously passed.

Submitted by,



Petra S. Reynolds, Town Clerk

Approved by,



Jim Jordan, Chairman

7-16-18

Date