

**ENVIRONMENTAL COMMITTEE MEETING**  
Kiawah Island Municipal Center  
Council Chambers  
February 16, 2017; 3:00 PM

**Minutes**

**I. Call to Order:** *Mrs. Mezzanotte called the meeting to order at 3:00pm.*

**II. Roll Call:**

**Present:** Diana Mezzanotte, Chairman  
David Elliott  
Jim Chitwood  
Marilyn Olson  
Lynne Sager  
Jim Sullivan  
Lynette Schroeder  
John Leffler  
**ARB:** Amanda Mole  
**KICA:** Matt Hill  
**KIGR:** Liz King  
**KINHC:** Jack Kotz  
Justin Core  
**TOKI:** Jim Jordan  
Aaron Given  
  
**Absent:** Jane Ellis  
Robert Simmons  
Sandra Williams

**III. Approval of Minutes:**

**A.** Environmental Committee Meeting Minutes of November 8, 2016

*Mr. Jordan made a motion to approve the minutes of the November 8, 2016 Environmental Committee meeting. The motion was seconded by Mrs. Sager and was unanimously approved as amended.*

**IV. Old Business**

**A.** Bobcat GPS Study Update

Mr. Jordan reported bobcat trapping began February 14<sup>th</sup> with six collars to be deployed and two captures to date.

- o Bobcat 850, first collar of the year, captured on February 16<sup>th</sup> at Parkside Villas - 15 lb. 11 oz. male
- o Juvenile male captured and released on February 16<sup>th</sup> at the Preserve. He was PIT (Passive Integrated Transponder) tagged as kitten in May of 2016 on Ruddy Duck Court

**B.** Alligator Research Project Update

Mr. Jordan stated the Alligator Research Project was a joint effort between Town, KICA, and

Conservancy. Alligator captures began November 2<sup>nd</sup>, stopped in mid-December, and will resume in March. Thirteen alligators have been captured and fitted with visual numbered tags to aid in future identification. Twelve of the thirteen were fitted with VHF transmitters. There is an online application on the new website to report sightings.

#### C. Marsh Sparrow Research Update

Mr. Given reported Marsh Sparrow captures began in December and will continue during high tides greater than 5.8 until April. He indicated fifteen to sixteen sites had been visited so far and will continue, weather permitting. GPS and Nano tags to be deployed on Seaside Sparrows this year with twenty-one GPS tags deployed so far.

#### D. Beach Monitoring Update

- Annual field work completed in January
- Aerial photography flown February 6<sup>th</sup>
- Report available in early March
- KICA has received permit to place sand along 129/131 Flyway where a breach formed on October 2015. Town has advised KICA to wait until spring to reevaluate the need for the work.
- Ocean Course has installed sand fencing along driving range
- Kiawah Partners will be installing sand fencing at the Beach Club

### V. New Business

#### A. Town School Group Programs

Mr. Jordan reported on the two Elementary School programs planned for this spring. He indicated they worked with Engaging Creative Minds, a local non-profit, to develop the curriculum and activities for local schools.

- Angel Oak (3 second grade classes)
  - Late February – install birdhouse with camera and feeders at school. Discuss birds, habitats, etc. with students
  - March 22 – Students to come to Kiawah and visit Mingo Point. Three stations including bird banding, marsh ecology, and reptile teach and touch
- Mt Zion (3, second grade classes)
  - Late February – visit school and conduct a reptile teach and touch program
  - Early April – sponsor students to come to Kiawah and visit Mingo Point. Three stations including bird banding, marsh ecology, and bobcats

#### B. Review of Dr. Rainwater's Research Proposal for FY 16-17

Kiawah Island is unique in that it harbors a large (ca. 700) and thriving American alligator (*Alligator mississippiensis*) population living alongside a relatively large human population (1,400 permanent residents, over 10,000 annual visitors). Given this situation, interaction between people and alligators is inevitable. As a result, the Town of Kiawah Island (TOKI) and the Kiawah Island Community Association (KICA) have developed a research program to better understand the biology of Kiawah's alligators in an effort to increase awareness and safety across the island for both humans and alligators. To augment this project, we here propose a pilot study to examine the movement patterns and habitat use of alligators on Kiawah using GPS telemetry. We will capture five adult (>180 cm total

length) alligators and externally attach a GPS transmitter to the dorsal surface (“neck” region) of each animal. Transmitters will emit a location every three hours from the time of capture to approximately one year after attachment, allowing us to quantify home range size, movement rates, and habitat use.

This study will provide TOKI and KICA biologists with much needed information on alligator movement and habitat use on Kiawah, including frequency of pond-to-pond travel, road and leisure trail crossings, and salt marsh use, as well as seasonal movement trends, day vs. night movement patterns, and potentially alligator nest locations. This will allow for more informed management strategies to simultaneously promote human safety (e.g., avoid human-alligator conflict) and alligator conservation (e.g., identify and protect critical habitat).

Total funds requested for upcoming fiscal year is \$17,500.00 (5 GPS transmitters and associated supplies and materials)

**Following committee members discussion, Mr. Jordan made a motion to support the recommendation of the expenditure of \$17,500.00 for Dr. Rainwater’s Research Proposal. The motion was seconded and unanimously passed.**

**C. Review of Funding Pre-proposals for Natural Resource and Environmental Initiatives for FY 17-18**

Committee Members discussed available funding and past funding of projects. Also discussed was the process and the established criteria by which applications would be evaluated, ranked, and then, chosen for funding consideration based on ranking. A clarification of the criteria was simplified as supporting educational programs and activities that improves the habitat and environment on Kiawah and surrounding Islands as opposed to activities further off Island. Activities should also support the objectives in the Town’s Comprehensive Plan.

Members engaged in an in-depth discussion of the merits of each of the applications:

February 2017 Environmental Committee Pre-Proposal Funding Requests				
Requesting Organization	Project/Proposal	Funding Breakdown	Notes	Pre-Proposal Request Amount
Habitat Assn of Songbirds & Woodpeckers in Urbanizing Landscapes Dr. F. Ferguson, University of Alabama	17 weeks (May-July 2018) of 2 research teams who survey at 30 locations collection data on habitat, wildlife and public participation	\$12,000 + 2 birds (\$800) + 30 GPS collars @ \$100, 500 materials, 50,000 postage stamp (\$1200) + 2000		\$14,000
Holphins and Freshwater Health M. D. Davis, M. C. Davis, M. C. Davis	Endemism studies on a small population, ongoing since 1994. Results at various points in time. Project findings published as peer reviewed manuscripts and presentation at Conservation Institute Summit	1 grad student for 1 yr, research trip salary, airfare, hotel & lab analyses, vehicle, field and lab equipment		\$10,000
St. John's High School A & B Nature Program, Melissa Davis, Trebecca Spiders, Juliana Smith	Guided education for at-risk students make 2-3 visits per semester to the Kiawah Island Nature Center	Funding primarily for bus transport		\$2,250
Engaging Creative Minds KIAWAH STATE OFFICE	Professional development training to 50 teachers, 2017-2018 school year. Includes field trips, environmental programs, ECEM participation with students on a field journaling project			\$10,000
Holphins Striped Feeding KIAWAH STATE OFFICE Marine Mammal Network	Increase in the size of feeding colonies at Captain Sam's IMC. Encourage IMC public and appropriate interactions with dolphins	Travel costs and materials		\$7,000
Sea Level Rise Planning South Carolina Aquarium	Education on sea level rise and its effects. Software for mapping potential impacts. Developments of 12 curriculum on sea level rise			\$15,000
<b>TOTAL</b>				<b>\$79,246</b>

**1) Habitat Associations of Songbirds and Woodpeckers in Urbanizing Landscapes**

**Applicant:** Dr. Paige F. B. Ferguson, Assistant Professor, Department of Biological Sciences, University of Alabama

**Proposed Project:** The southern United States is the region of the country that has experienced the greatest percent increase in population. In South Carolina, 18% of the population growth from 2010 to 2020 is expected to occur around Charleston. Increases in urban populations often are associated with loss of wildlife habitat. We propose to quantify how habitat features relate to the probability that songbirds and woodpeckers occupy sites in the Charleston-Kiawah Island region and other urbanizing areas of the southern U.S. During 10 weeks in May-July 2018, two research technicians will survey Kiawah Island and sites around Charleston. They will record data regarding the songbird and woodpecker species they detect and data characterizing the local habitat. Survey sites will be selected leveraging the point count sites established on Kiawah Island and using stratified random sampling through ArcGIS so that a range of habitat types are represented from highly urbanized to highly natural. Ferguson will direct the research technicians in their field work, gather landscape-scale habitat data using ArcGIS land use land cover maps, and use Bayesian hierarchical occupancy models to relate species presence to habitat features while accounting for false positive and false negative detections. Ferguson has collected similar data in urbanizing areas of the southern Appalachian Mountains and southern Black Belt prairies. She will include the data from the proposed project with the existing database to conduct regional modeling. Members of the public will also be invited to participate in the bird and habitat data collection in the Charleston-Kiawah Island region.

**Request:** A total of \$24,996 is requested for the upcoming fiscal year. Two research technicians will be supported at an estimated \$11,880. Travel and lodging expenses are estimated at \$8,150. Materials are estimated at \$2,500. A quarter of a month of summer salary and fringe (\$2,466) will support Ferguson, who has a 9-month appointment, to analyze the data.

Following Committee Members discussion of the application, it was suggested to remove the application for funding consideration. The Town has a program already in place.

## 2) Outdoor Wildlife Lessons in Science (OWLS) Outreach Program

**Applicant:** St John's High School & KI Nature Program. Melissa Davis, Trelacsha Spillers, & Juliana Smith

**Proposed project:** The Kiawah Island Nature program and St. John's High School are partnering together to create an outdoor education outreach program. The goal of the program is to give high school science students opportunities to repeatedly visit Kiawah Island and learn about their local habitat. Most importantly, though, the content presented on their visits will be information integrated into their classroom learning. As a Nation, we are failing our students in science, technology, engineering, and math educations (STEM). This program will reach out to our community's youth, teach them to love their local habitats, and present them often-esoteric science concepts in accessible ways. Students will visit the island two to three times a semester and engage in hands-on science lessons in our island's natural habitats. One of the major costs of this program is transporting students to Kiawah Island. In the interest of keeping this program free to the students involved, funding would be used to bus students and chaperones round-trip during on-site field trips.

**Request:** Transportation funding will ensure students accessible transportation to and from the island during their trips. This project meets the third goal and objectives of the Town of Kiawah Island's 2015 Comprehensive Plan. Requested Amount: \$2,250

## 3) South Carolina Aquarium Resilience Initiative for Coastal Education (RICE)

**Applicant:** Maggie Roudsari, Strategic Advancement Manager

**Proposed Project:** In the coming year, the Aquarium would like to partner with the Town of Kiawah to engage in collaborative planning efforts around this critical topic, producing a community town hall program to draw in concerned citizens, policy-makers, and environmental partners to forge planning and education partnerships for coastal resilience on the island and surrounding area. The town hall model can be scaled and replicated in the neighboring sea island communities, drawing in representatives from the most vulnerable populations susceptible to the negative impacts of rising sea levels.

Partnering with the South Carolina Aquarium through RICE directly addresses the Town of Kiawah's Comprehensive Plan goals to maintain existing quality of the natural resources on Kiawah Island and to maintain and expand public education and outreach programs. In 2016, the Aquarium successfully produced four town halls in Charleston, Myrtle Beach, Beaufort, and Savannah to engage key coastal

communities in early planning that re-enforced the Aquarium's critical role as a community convener and interpreter of environmental science themes and concepts for the general public

**Request:** To fully engage Kiawah Island, and the surrounding area, in RICE, the Aquarium requests support from the Town of Kiawah in the amount of \$15,000 for the coming year

Following Committee Members discussion of the application, it was suggested to remove the application for funding consideration.

#### 4) Atlantic Bottlenose dolphin strand feeding at Captain Sam's Inlet- Education and Outreach

**Applicants:** PI: Lauren Rust, Lowcountry Marine Mammal Network, Co-PI: Cheryl Munday (NOAA Fisheries SE Office) Collaborators: Wayne McFee (NOS), Chloe Fleming (NOS)/HML

**Project Description:** To increase awareness about bottlenose dolphin strand feeding and implement an education program to address illegal human interactions with strand feeding dolphins on Kiawah Island, South Carolina.

Strand feeding is a unique feeding strategy where bottlenose dolphins chase their prey on shore, lunge out of the water to grab the fish and return to the water. While this behavior may seem alarming as they appear to be in distress, the animals have perfected this unusual behavior. Kiawah Island is one of a few locations in the US that dolphins are known to strand feed. Disturbing the animals can disrupt their behaviors and could result in changes or abandonment of this foraging behavior. Strand feeding can be observed from shore, kayaks and boats and has become somewhat of a spectacle to onlookers. Although human disturbances are not regularly monitored there have been increased reports of humans interacting with dolphins when they are strand feeding. Approaching, feeding, or interacting with wild dolphins is prohibited under the Marine Mammal Protection Act of 1972 (MMPA).

This project aims to increase awareness about this unique behavior while educating onlookers how to safely view this behavior so not to disturb the animals; thus, preserving this unique viewing experience. Implementation of an educational program will involve daily monitoring on the beach during peak times for strand feeding to observe and record dolphin behavior and engage the public about maintaining a safe viewing distance. Educational materials will be available and provided to local residents and businesses both directly and at local events on Kiawah. The project team hopes to build relationships with the Town of Kiawah to better understand the value of the behavior while working together towards the conservation of a rare and unique behavior.

**Request:** This project anticipates a budget of \$7,000 to cover travel, time, materials, and fees associated with outreach activities.

Mr. Jordan will review details, and if needed, discuss with other EC members to determine if this is a project we want to fund. The committee questions the long term advantage of this program and some member suggested that the Conservancy, Resort, Town and KICA working together might be able to develop their own program.

#### 5) Using the Kiawah Island resident dolphin community to assess ecosystem health and changes in this unique ecosystem over time

**Applicants:** Brian Balmer, Wayne McFee, Brian Quigley, Todd Speakman, and Eric Zolman NOAA / NOS / NCCOS / HML

**Proposed Project:** Bottlenose dolphins are long-lived apex predators of the salt marsh estuaries and coastal waters surrounding Kiawah Island. Since 1994, our research group has engaged in multiple research projects with the goal of better understanding the health of this resident dolphin population and, by extension, the health of their environment. Using our historical (1994-present) photo-identification (id) data we will further characterize the resident population of dolphins around Kiawah Island and assess their movement patterns and habitat use over the past 20+ years. We will also conduct additional photo-id surveys (fall 2017 and spring 2018), building upon our existing dataset, to identify changes in dolphin abundance, community composition, habitat use, and

distribution over time. The results of this project will provide a fine-scale assessment of the dolphins resident to the waters surrounding Kiawah Island and how this population has responded to environmental changes over the preceding 20+ years.

**Requested:** Total funds requested for upcoming fiscal year (July 1 - June 30): \$20,000. The requested amount will be used to fund a graduate student for a year's time as well as provide salary for a research technician necessary for fieldwork and lab analyses. Vessel time, fuel as well as field and lab equipment will be covered in kind.

It was suggested to remove the application for funding consideration.

## 6) Engaging Learning Experiences Program

**Applicants:** Sarah Ory, Director of Development and Communications, Engaging Creative Minds

**Proposed Project:** In the proposed program, ECM will offer 53 Johns Island teachers from Mt. Zion, Angel Oak, Frierson, and Haut Gap an experience based on environmental science, including biology and preservation. This program would begin by offering a professional development session early in the 2017-2018 school year for the teachers to visit Kiawah with local biologist Jim Jordan. During the visit, teachers would be exposed to the local habitat, participate in the hands-on environmental programs and efforts that take place on Kiawah, such as remote animal tracking, and plan how they want to use those opportunities in their instruction throughout the year.

After returning to their schools, an ECM Visual Arts Partner would engage 866 students in the participating teachers' classrooms in researching an aspect of the local environment. Activities will include creating visual representations of native animals and habitats. To accompany their visual arts projects, an ECM art partner specializing in journalism will lead students in publishing a newspaper about protecting and preserving the wildlife and habitats on John's Island, Seabrook, and Kiawah. Students would visit Kiawah to engage in activities like seine netting, ultimately collecting photographs from their field experiences and visual arts projects into educational articles that will be published and distributed to the surrounding communities.

**Requested:** Total funds requested for upcoming fiscal year: \$10,000

Following discussion, members agreed four pre-proposals required further consideration:

1. Dolphins and Ecosystem Health	\$20,000.00
2. St. John's High School & KI Nature Program	\$2,250.00
3. Engaging Creative Minds	\$10,000.00
4. Dolphin Feeding (Mr. Jordan to review and make final decision regarding project.)	\$7,000.00

**Mr. Jordan made a motion to request \$35,000.00 to fund the environmental proposals. The motion was not seconded or voted on.**

Members engaged in further discussion on the four applications, funding amounts, and the Environmental Department Budget amount of \$35,000.00. Members were generally in support of the three proposal submissions listed below: No formal decisions were made.

1. St. John's High School & KI Nature Program	\$2,250.00
2. Engaging Creative Minds	\$10,000.00
3. Dolphin Feeding	\$7,000.00

### D. Review of Kiawah Conservancy Pre-proposals for FY 17-18

The Committee discussed the history of the Town's funding of the Conservancy and the budget

amount of \$58,000.00 for the 2016-2017 fiscal year. Mr. Core reviewed each of the applications submitted by the Kiawah Conservancy. Following discussion of each application, members rated the application on a low, medium, or high priority.

February 2017 Environmental Committee Conservancy Requests					
Requester (Organization)	Project/Proposal		Notes	Previous Funding FY 2016-2017 (November 2016)	Per Proposal Request Amount
Kiawah Island Conservancy	3,700 brochures for Maritime Forest Reserve & Nature Trail, Kiawah Island, South Carolina	20,000 per brochure, estimate 74,000 total	Exaction Permit granted Conservancy \$1,000 for "Naturally Kiawah" Permit #14-010-0000-01155	\$5,000	\$2,000
Kiawah Island Conservancy	TravelStoryGPS Mobile App Tour - Add new photos, maps and maintain existing features created with earlier Town funding				\$5,000
Kiawah Island Conservancy	Beneficial Invasive Plant				\$20,000
Kiawah Island Conservancy	Standard Symposium		Exaction Permit granted Conservancy 2/13/2017 for Standard Symposium 2/17/17 - 1/16/18 - cost \$7,000 for all-glass Symposium	\$11,000	\$12,000
Kiawah Island Conservancy	Herpetological Survey - West Beach - Same garden program as meetings to "Naturally Kiawah" plant lists				\$10,000
Kiawah Island Conservancy	Invasive Plant Research - Tall Tree Control on Town and Conservancy Properties	Research costs 10-12 items \$80 per item	10/28 Follow-up treatments completed. Town treated 110 acres @ \$19,920. Town will do 143 acres @ \$4,276. Kiawah Conservancy \$2,000 for Town Program. Invasive plant survey 2016-2017		\$5,000
Kiawah Island Conservancy	Herpetological Survey - North Beach - Same garden program as meetings to "Naturally Kiawah" plant lists		Exaction Permit granted Conservancy 2/13/2017 for "Naturally Kiawah" Permit #14-010-0000-01158	\$5,000	\$10,000
Kiawah Island Conservancy	TravelStoryGPS Mobile App Tour - South Beach (Barnacle) September 2017 - 2018 - Fall Issue (Sept. 2017)		Exaction Permit granted Conservancy 1/20/2017 for "Naturally Kiawah" Permit #14-010-0000-01154	\$20,000	\$30,000
Kiawah Island Conservancy	2,000 Perennial - Shrub/Flange Herb - Adaptive Herb				\$10,000
Kiawah Island Conservancy	Seagrass Plant - 1000 - to be back to see the impact on wildlife habitat, water quality, and to provide B analysis, marsh migration and effects on water and plants. Same as for Conservation Matters Series				\$10,000
Kiawah Island Conservancy	Threatened - potential species - American alligator - 1000 - to be back to see the impact on wildlife habitat, water quality, and to provide B analysis, marsh migration and effects on water and plants. Same as for Conservation Matters Series				\$10,000
Kiawah Island Conservancy	TravelStoryGPS Mobile App Tour - 1000 - to be back to see the impact on wildlife habitat, water quality, and to provide B analysis, marsh migration and effects on water and plants. Same as for Conservation Matters Series				\$5,000
TOTAL					142,000

### 1) Maritime Forest Reserve and "Naturally Kiawah" Demonstration Garden Brochures

**Proposed Project:** To complement its existing set of brochures, the Kiawah Conservancy seeks to produce 3,000 copies of additional brochures focused on the Maritime Forest Reserve and Nature Trail and "Naturally Kiawah" Demonstration Garden.

The Maritime Forest Reserve and Nature Trail (133 Conifer Ln) was renovated in 2016, with funds provided by the Town. New signs, pathways, and benches were installed and the property is included in the "Western Island" TravelStoryGPS app tour. The information provided by the brochure will focus on Kiawah's maritime forest habitat, native plants, wildlife, and how to access the trail property.

The "Naturally Kiawah" Demonstration Garden brochure will contain information about the Garden and the Conservancy's "Naturally Kiawah" Landscape Recognition Program. The brochure will include information on plants that benefit Kiawah's wildlife and landscaping practices that integrate components of the natural environment into residential landscapes.

The brochures will be provided to the Nature Center and other Golf Resort outlets, the Town and Kiawah Island Community Association for distribution; they will also be available at the Conservancy office and will be distributed at Conservancy events.

**Requested:** Total funds requested for upcoming fiscal year: \$2,000

### 2) Bobcat Documentary Filming

**Proposed Project:** During the Town's upcoming fiscal year, the Kiawah Conservancy will be initiating the filming of a documentary highlighting the island's bobcat population. The documentary will be similar to the existing videos on loggerhead turtles (2015), American alligators (2016) and shorebirds (2017) and will be produced by Neal Communications. The documentary will highlight the GPS collar work carried out for the last ten years by Town Wildlife Biologists and its role in shaping conservation efforts carried out by the Town and Conservancy. The documentary will likely feature interviews with several community members, including residents, visitors, and Town Wildlife Biologists.

**Requested:** Total funds requested for upcoming fiscal year: \$20,000

### 3) Habitat Improvement (West Beach)

**Proposed Project:** The Kiawah Conservancy seeks to focus its Habitat Improvement efforts in the West Beach area of the island throughout the upcoming fiscal year. 63% of single-family residential homes meet the Conservancy's "Naturally Kiawah" criteria for providing wildlife habitat in their respective landscapes. Although "Naturally Kiawah" properties are found across the island, they are far less frequently encountered

in West Beach, where landscapes have aged and plants have often been replaced with mulch or pine straw, due to die-off and/ or shade from an expanded forest canopy. In 2014, KICA began revitalization efforts in West Beach. Landscaping projects in common areas, such as those along Surfwatch Road and Low Oak Woods Road, transitioned older landscapes to natural areas, rich with native plants and higher habitat value. Pleased with the results, several owners of adjacent properties also renovated their yards and thus increased the habitat value on their developed properties. The Conservancy would like to continue to find ways to encourage landscape renovation in West Beach; including demonstration areas highlighting how to create/maintain a habitat-friendly landscape in this area of the island (where there is often increased shade, older plants, substantial mulch, etc.). Additional program efforts would include "neighborhood" meetings with property owners to discuss the "Naturally Kiawah" Habitat Recognition program, developing general landscape designs and plant lists with local landscape architects and working with island partners to help improve habitat quality throughout West Beach (most notably, ARB, KICA, and the Town).

**Requested:** Total funds requested for upcoming fiscal year: \$10,000

#### 4) Invasive Plant Research

**Proposed Project:** The Conservancy's Environmental Science Committee seeks to utilize local faculty and students to conduct ecological research focused on invasive plants species on Kiawah Island in 2017. Projected areas of interest include island inventories of Chinese tallow tree (with an examination of habitat "recovery" at current treatment sites), Phragmites, and other exotic, invasive species of concern. Additionally, funding is sought to provide support for continued management of Chinese tallow trees Conservancy -owned properties and conservation easement areas, in conjunction with ongoing Town management efforts.

**Requested:** Total funds requested for upcoming fiscal year: \$5,000

#### 5) "Naturally Kiawah" Demonstration Garden

**Proposed Project:** The "Naturally Kiawah" Demonstration Garden at Night Heron Park serves as an important resource supporting the Kiawah Conservancy's "Naturally Kiawah" Landscape Recognition program. The program seeks to recognize owners of single-family homes and cottages (regimes) who create and/or maintain wildlife habitat within their residential landscapes. The "Naturally Kiawah" Garden serves as an on-the- ground demonstration area where plants (mostly understory shrubs) that thrive on Kiawah and provide wildlife habitat can be viewed. Interpretive material is also provided at the garden, most notably on signage (including plant ID placards), but also with QR codes and the Garden's inclusion on the "Central Island Tour" of the TravelStoriesGPS app. Funding is being sought to provide support for the addition of new plant specimens, installation of necessary infrastructure (pathway material and bench pads), maintenance and improvements (including pruning of plants and trees), irrigation system updates and additions of mulch. Project partners also include the Kiawah Island Golf Resort and Kiawah Island Community Association.

**Requested:** Total funds requested for upcoming fiscal year: \$10,000

#### 6) "Naturally Kiawah" Publications

**Proposed Project:** The Kiawah Conservancy is requesting \$30,000 from the Town of Kiawah Island to support the publication of the following "Naturally Kiawah" magazine editions: Special Guest Guide (summer 2017 release) and Summer/Fall issue (September 2017 release). The "Naturally Kiawah" magazine, Special Guest Guide edition, is published every two years. It includes a variety of articles, photographs, and stories about Kiawah's wildlife and natural habitats, aimed at educating island guests. Copies of the magazine are distributed to the Kiawah Island Golf Resort, rental outlets, Freshfields Village and the Nature Center. The Summer | Fall issue of "Naturally Kiawah" is the second of two regularly published annual editions of the magazine. It is distributed to all Kiawah Island property owners, and also to the Kiawah Island Community Association for distribution to new members, as well as the Town of Kiawah Island | Visitor Center desk.

**Requested:** Total funds requested for upcoming fiscal year: \$30,000

#### 7) Wildlife Web Cameras

**Proposed Project:** The Kiawah Conservancy seeks to establish two wildlife cameras on the island: in an existing osprey/eagle nest and at a pond frequented by alligators. The placement of live video web cams in different habitats on Kiawah will provide a unique way for visitors and residents to view wildlife. The project will also likely employ partnerships with the Kiawah Island Golf Resort and/or Kiawah Island Community



Association, which will further its effective reach.

**Requested:** Total funds requested for upcoming fiscal year: \$10,000

## 8) Sea Level Rise

**Proposed Project:** The topic of sea level rise and its potential impacts on Kiawah Island has been discussed at several recent meetings of the Town Environmental Committee and Kiawah Conservancy Environmental Science Committee. For the upcoming fiscal year, the Conservancy is requesting funding to begin basic research and initiate community collaborations related to sea level rise - including investigations into potential impacts on Kiawah's natural wildlife habitats, which may include geospatial modelling and analysis, "marsh migration," and effects on particular wildlife and plant species. Also, there are a variety of speakers that can give presentations on the topic to the community, as part of the existing "Conservation Matters" series coordinated by the Conservancy. Key project partners may include South Carolina Sea Grant, South Carolina DNR, City of Charleston and local colleges and universities.

**Requested:** Total funds requested for upcoming fiscal year: \$10,000

## 9) Shorebird Symposium (Fall 2017)

**Proposed Project:** The Kiawah Conservancy's shorebird symposium will be held in the fall of 2017 and will be the official "release" and first viewing of the Conservancy's shorebird documentary, focusing primarily on red knots. A variety of speakers will discuss current shorebird research efforts and the event is open to the public - the primary audience will be Kiawah Island property owners. The symposium will continue the Conservancy's annual research presentation schedule, which has included a review of Kiawah's history since development (1974-2014), Loggerhead Sea Turtles and American Alligators.

**Requested:** Total funds requested for upcoming fiscal year: \$12,000

## 10) Student Research

**Proposed Project:** The Kiawah Conservancy's Environmental Science Committee seeks to utilize local faculty and students to conduct ecological research on Kiawah Island in 2017. Projected areas of interest include an ecological inventory (flora and fauna) of Little Bear Island (to complement Fall Migration Bird Banding), habitat restoration on Conservancy-owned properties and/or conservation easements, complementary studies regarding ongoing alligator research and complementary studies regarding ongoing bird research.

**Requested:** Total funds requested for upcoming fiscal year: \$10,000

## 11) TravelStorysGPS Mobile App Tours

**Proposed Project:** The Kiawah Conservancy has developed seven interactive tours of Kiawah Island within the TravelStorysGPS mobile app (six of these with prior TOKI funding). Tours take app users to different regions of Kiawah Island (Western Island Tour, Central Island Tour, Eastern Island Tour, and the Preserve) and are also focused on specific content (Pond life of Kiawah Island Tour, Beach Scavenger Hunt and Photography Tour). The Conservancy requests funding to develop one additional tour in 2017 to complement the existing set of tours on Kiawah's natural environment, history, and geography; and also, to update and maintain existing tours, as needed.

**Requested:** Total funds requested for upcoming fiscal year: \$5,000

## 12) Water Quality Study

**Proposed Project:** The Kiawah Conservancy's Environmental Science Committee seeks to utilize local faculty and students to conduct an initial pilot study focused on water quality associated with the island's ponds. Potential areas of interest, as expressed by several Science Department faculty at the College of Charleston include:

- Geospatial inventory and analysis of hydrography of Kiawah Island with a focus and synthesis with alligator and other sentinel species migration patterns.
- Collaborating and/or extending the stormwater pond initiative work led by SC Sea Grant.
- How do the stormwater ponds function? What are the important characteristics of different 'types'?

of ponds? Ponds are designed to retain/detain stormwater; how efficient and effective are they at achieving that goal? What are the side effects of this? o

- This could involve multiple sites with Kiawah having some pond-types within, but also serve as a critical research site to compare with other communities, e.g., Crowfield Plantation in Goose Creek.

Element/constituent-specific water analysis in stormwater ponds. Could include pesticides, nutrients, PFAs, PAHs, heavy metals, etc. Cougar Point Golf Course is undergoing a yearlong renovation; including removal of old storm culverts and installation of new ones. Culverts may be lined with organic materials (PAHs + associated materials) and thus culverts are not just water + pollutant conveyances but potential sources of materials deposited in ponds.

**Requested:** Total funds requested for upcoming fiscal year: \$5,000

#### **E. Discussion of potential committee initiatives**

##### **1. EC review Planning Commission proposals**

Mr. Sullivan, former Mayor and Town Council member in CT, discussed EC/Planning interaction in CT. Jim suggested we consider an EC subcommittee to working with the Planning Commission to review projects brought before the Commission. Mrs. Mezzanotte and Mr. Sullivan will address this issue. First step will be to approach the Planning Commission to see if such an EC subcommittee would be beneficial.

##### **2. Pre-approved wildlife landscaping plans**

Mr. Core explained project idea. This project will be led by the Conservancy.

##### **3. Rising Sea Levels**

Mr. Elliott reviewed information on the rise of the sea levels over the coming years and presented a map of the predicted area that would be in danger along the Kiawah River to include homes and the River Course. He made a recommendation to bring in an expert for a better understanding of the risks and possible solutions.

Mrs. Mezzanotte suggested Mr. Leffler lead this sub-committee. He accepted.

- 4. Low-impact Community**
- 5. Town Environmental Presentations**
- 6. Plastic bags, helium balloons**
- 7. Charging stations for electric vehicles**
- 8. Water quality monitoring**

Mrs. Mezzanotte stated initiatives 4 - 8 would be discussed at the next meeting.

#### **VI. Reports: There were no reports at this meeting**

- A. Town of Kiawah Island**
- B. Kiawah Island Community Association Land & Lakes Management**
- C. Kiawah Island Golf Resort**
- D. Kiawah Island Architectural Review Board**
- E. Kiawah Conservancy**
- F. Turtle Patrol**

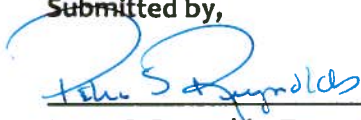
VII. Citizen Comments:  
None

VIII. Chairman's Comments:  
None

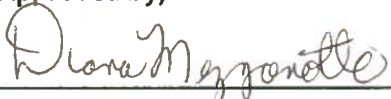
IX. Committee Member Comments:  
None

X. Adjournment:  
*Mr. Chitwood made a motion to adjourn the meeting at 4:54 pm. The motion was seconded by Mr. Kotz and unanimously passed.*

Submitted by,

  
\_\_\_\_\_  
Petra S. Reynolds, Town Clerk

Approved by,

  
\_\_\_\_\_  
Diana Mezzanotte, Chairman

4/2/17  
Date