

MAYOR:
John Labriola

TOWN ADMINISTRATOR:
Stephanie Tillerson

TOWN ATTORNEY:
Joseph Wilson



MAYOR PRO TEMPORE:
Michael Heidingsfelder

COUNCIL MEMBERS:
Bradley D. Belt
Russell A. Berner

ENVIRONMENTAL COMMITTEE MEETING
Council Chambers and via Zoom
December 13, 2023; 1:00 PM

AGENDA

- I. **Call to Order:**
- II. **Approval of Minutes:**
 - A. Minutes of the August 9, 2023 Environmental Committee Meeting
 - B. Minutes of the October 11, 2023 Environmental Committee Meeting
- III. **Citizen's Comments:**
- IV. **Project Updates**
 - A. Shorebird Stewardship Program
 - B. Grow Native
 - C. Rodenticides/Wildlife
 - D. Kiawah Conservancy Projects
 - E. Clemson PhD Bobcat Anticoagulant Study
 - F. Kiawah Go Green Initiative
 - G. Kiawah River Bridge Access Feasibility Study
- V. **Old Business**
 - A. Kiawah River No Wake Zone
 - B. Trash Cans on Beach
- VI. **New Business**
 - A. Kiawah Island Dolphin Education Program
 - B. 2024 Meeting Dates
- VII. **Reports:**
 - 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
- VIII. **Citizen Comments:**
- IX. **Chairman's Comments:**
- X. **Committee Member Comments:**
- XI. **Adjournment:**

FOIA: Notice of this meeting has been published and posted in accordance with the Freedom of Information Act and the requirements of the Town of Kiawah Island.

ENVIRONMENTAL COMMITTEE MEETING

Council Chambers and via Zoom

August 9, 2023, 1:00 PM

Minutes

I. **Call to Order: Mr. Jordan called the meeting to order at 1:00 pm.**

Present: Jim Jordan, Chairman

Lynne Sager

KINHC: Lee Bundrick

KIGR: Liz King

Present via Zoom: Jim Chitwood

Jack Kotz

Michael Heidingsfelder

Absent: Pam Wilson

Jane Ellis

KICA: Matt Hill

TOKI: Aaron Given

ARB: Tommy Manuel

II. **Approval of Minutes:**

A. Minutes of the June 21, 2023 Environmental Committee Meeting

Ms. Sager made a motion to approve the minutes of the June 21, 2023, Environmental Committee meeting. Mr. Bundrick seconded the motion, and it was unanimously approved.

III. **Citizen's Comments:**

None

IV. **Project Updates:**

A. Shorebird Stewardship Program

B. Grow Native

Mr. Jordan provided information on the showcase event planned for the afternoon of Friday, October 6th, at Town Hall. The event will be named either *Bobcats, Bourbon and Bluegrass* or *Bobcats and Bluegrass*. The event, possibly scheduled for 2:00 pm, will include a presentation or panel discussion, lasting approximately one hour, then moving outdoors for the bluegrass band and a bourbon tasting from a local distillery. The tasting would preferably be set up along the nature trail and prompted the focus on reclaiming the Nature Trail for use at the event. The event will be free but ticketed to control the number of attendees.

Dr. Heidingsfelder stated the Town would be hosting its 35 Anniversary event on September 8th and questioned if the Nature Trail could be ready at that event. Mr. Jordan stated that he would push for that to happen.

C. Rodenticides/Wildlife

Mr. Jordan stated that 156 samples had been submitted to date, and 34 samples were submitted in 2023. He reviewed the issue in February at Mingo Point, where six raccoons were found sick or dying in a very short period. The thought was that the issue was related to the use of anticoagulants when a SGA (Second Generation Anticoagulant) was found at the site. He noted

that all of the raccoons tested negative for SGAs and it was likely an outbreak of distemper.

Mr. Jordan presented and reviewed slides of the trend data for the time the work started in 2020. Slides included the exposure rate for opossums, which dropped progressively from 2020 to 2023, and the exposure rate for raccoons, which dropped from 2020, leveling out and showing a slight increase in 2023.

Mr. Jordan reviewed the average exposure levels data, noting that bobcats showed a drastic drop early on and stayed at that level through 2022. Exposure levels in raccoons were shown to have dropped by 50%, and opossums showed varying levels. It was noted that 2023 had the lowest concentration levels seen. Despite a small increase in raccoon levels, the data continues to show positive trends.

Mr. Jordan stated that the small increases have prompted a renewed push of the guardian program coinciding with Save Kiawah Bobcats week to generate interest around the topic again.

D. Kiawah Conservancy Projects

Mr. Bundrick reported the installation of the rain gardens had been completed, one of which is outside Town Hall. There was a workshop session with representatives from Clemson Extension and Weston Sampson for people to learn about rain gardens. The session then moved outside to prepare the soil and install the native plantings, including milkweed, red sage, and sweet grass, along with all the accessories. The rain garden is currently being watered two to three times a week and will be cared for in the coming year, at which time it should be able to maintain itself. He noted the Weston Sampson designs for the rain gardens would be made available to the community.

Mr. Bundrick stated that since Town funds can not be used behind the gate, the Conservancy is working with the Community Association on the installation of another rain garden at the Rhett's Bluff boat ramp.

E. Clemson PhD Bobcat Anticoagulant Study

Mr. Jordan reported that the graduate student, Ms. Keating, is nearing the completion of her academic work and will be taking her written final exams in September and her comprehensive oral exam on October 5th.

F. Marsh Management Plan

Mr. Jordan stated that one component of the Marsh Management Plan is the Kiawah River Access, which will be discussed later in the meeting under *New Business*.

G. Kiawah Go Green Initiative

Dr. Heidingsfelder reported there had been several meetings of the workgroup as well as the ten sub-workgroups created to focus on individual initiatives. The workgroup focusing on the installation of charging stations on the island released a survey with over 1400 residents responding. The survey data showed there are approximately 150 hybrid and electric vehicles on the island. They included questions asking if residents would consider purchasing an electric vehicle if a station were made available. The workgroup is in the process of selecting a vendor for two stations, one at Freshfields and one at the Sandcastle, along with working out the logistics involved with having one of the stations installed before the end of the year. A large grant application was filed with the US Department of Transportation to support the Town with the installation of four charging stations outside the gate.

Dr. Heidingsfelder also provided an update on the following:

- The workgroup focusing on vehicles on the beach was in the process of collecting data points on how many vehicles are operating, their type, and their requirements.
- The workgroup focusing on single-use plastics is in the process of collecting data from the businesses in Freshfields on the materials used in their take-out containers, cups, and silverware.
- The work on the program certifying Kiawah as a green destination was put on hold because the Sanctuary lost its marketing manager and was unable to make a decision on supporting the program.

V. Old Business

A. Kiawah River No Wake Zone

Mr. Jordan provided an outline of the history of the efforts made to establish a No-Wake Zone going back to 2017, in which the legislators at that time indicated installation of a No-Wake Zone would happen but had no follow-up. This has been brought up several times in the years that followed. In his opinion, the only way to make a No-Wake Zone happen is to use political connections with state legislators rather than using the formalized DNR process Ms. Rust has tried.

Dr. Heidingsfelder indicated that he had done research and reviewed the steps in the process that, included gathering:

- Strongly worded letters of support from
 - all of the different entities involved
 - KICA, the Club, Cassique, Seabrook, Briar's Creek
 - all of the Regimes and HOAs involved
 - The Point, Riverview, Inlet Cove
 - Beachwalker County Park / Charleston County Parks and Recreation
- Contact the Lowcountry Land Trust and the Lowcountry Marine Mammal Network
- Make a trip to Columbia to meet with legislators and possible professional support
 - Nikki Haley

B. Storage Boxes, Chairs, and Trash Cans on the Beach

Mr. Jordan stated that since the last meeting, Ms. Sager has contacted several local beaches to obtain information on how they handle items on their beaches. He noted that while the Committee is investigating the issues with storage boxes, chairs, and trash cans on the beach, the Town will be creating a workgroup to investigate these issues further. The kickoff meeting for the workgroup is scheduled for September 8th, and the goal is to provide recommendations on the changes to be made before the next beach season.

Mr. Jordan reviewed the following beaches:

- Seabrook
 - No beach chair or umbrella rentals.
 - Leaving items on the beach overnight is prohibited by ordinance.
 - Trash cans are located near roads or along boardwalks close to the beach.
- Isle of Palms
 - Leaving items on the beach overnight is prohibited by ordinance.
 - Two chair and umbrella rental companies, set up daily, not stored on the beach.
 - A private contractor picks up yellow trash barrels and blue recycling barrels on the beach in a small golf cart-sized gas vehicle with a mechanized arm.
- Sullivan's Island
 - No beach or umbrella rentals.

- No trash barrels on the beach. Trash cans are located on the street side at the start of beach accesses.
- Folly Beach
 - Have chair and umbrella rentals. Store most of their equipment near the pier, which turtles avoid.
 - No storage boxes or trash containers on the beach. Trash cans are on the street side of every block.
- Hilton Head Island
 - Storage boxes on the beach for chairs and umbrellas but no significant interaction with sea turtle nesting
 - Trash and recycling on the beach.

Dr. Heidingsfelder stated that in addition to himself, Ms. Tillerson, Mr. Jordan, Mr. Belt, Mr. Berner, and Mr. Nardelli would probably be attending the September 8th meeting. He reviewed the topics that would be included in the discussion and the information he would like to have provided for the meeting.

VI. New Business

A. Kiawah River Bridge Access Feasibility Study

Mr. Jordan presented the Kiawah River Bridge Access Feasibility Study proposal, which takes a holistic approach at the bridge access. He indicated the proposal was presented to the Ways and Means Committee. After the first review, the recommendation was tabled. It was recommended for approval at the next meeting with the caveat that following the initial assessment, the Ways and Means Committee and Town Council approve proceeding with the rest of the study.

Mr. Jordan stated that the Bridge Access subcommittee will be meeting the week of August 21st to meet with Ms. Elko and other members of his team to plan the exact details of the initial assessment of the project.

Committee Members engaged in an in-depth discussion of the elements of the Feasibility Study along with kayaks and watercraft launching expressed by members.

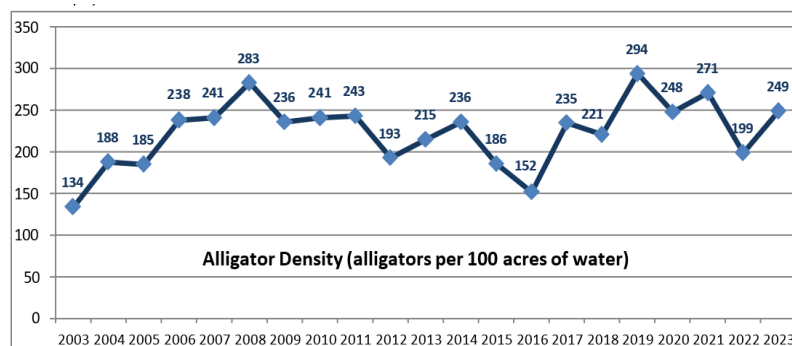
VII. Reports:

A. Town of Kiawah Island

Mr. Jordan reviewed his August report on the following:

Alligators

- four nuisance alligators removed in 2023 (6, 7, 9, 12 feet)
- Alligator spotlight surveys conducted July 18-19 (Density 249 alligators/100 acres of water). Stable population.



Bobcat GPS Study

- six bobcats captured in 2023.
- five collars malfunctioned; the battery died within a few weeks
- One collar currently working.
- one bobcat den was found in 2023. 2022 Adult Female 700 had two 2-week-old kittens (one male and one female) in a den in The Preserve. Bobcat 700 was originally collared on February 5, 2022, in The Preserve as a juvenile and weighed 12lbs, 2 oz.

Fall Migration Banding

- Daily banding will begin August 15 and continue through November 30.
- Banding sites include Captain Sam's Spit and Little Bear Island.
- six banding technicians have been hired.

B. Kiawah Island Community Association Land & Lakes Management

None

C. Kiawah Island Golf Resort

Ms. King reported that Sunday would be the very last day the Nature Center would ever be open. Throughout the next week, the snakes, turtles, alligators, a rabbit, and an opossum will be moved to the trailers where they will be housed for the next two years while the existing Nature Center is torn down and rebuilt.

Ms. King also stated that she had a job opening for a full-time Nature Program Manager—someone who is super strong in science and has a strong environmental education background.

D. Kiawah Island Architectural Review Board

None

E. Kiawah Conservancy

Mr. Bundrick reported the Conservancy had closed on two properties on the island and two applications in to acquire properties on Betsy Kerrison Parkway. An 18-acre tract that is currently Rosebank Farms and a 15-acre tract just to the north that includes Maritime Forest. Funding applications were submitted to the County Greenbelt and Conservation Bank for both the properties, and closings for the properties will be by the end of September.

Mr. Bundrick stated that along with the projects done with the Town, the Conservancy has completed the four-year project with the National Fish and Wildlife Service. He and Mr. Hernandez have been accepted to speak on the project at the National Land Trust Conference in Portland, Oregon.

F. Turtle Patrol

Ms. Sager reported that currently, there are 419 nests, the third highest year since 2004. She noted that it was the second day of no new crawls; there needed to be five consecutive days before the nesting season ended.

Ms. Sager stated there were coyote predations this year, which had not been an issue since 2015. Mr. Jordan stated the numbers he had were that approximately 5% of the eggs, or 15 to 18 nests, had been depredated by coyotes. One nest was a total loss, with the others tending to have lost 30 to 50 eggs.

Committee Members engaged in an in-depth discussion of the areas of the depredations, screening nests to prevent the depredations, how coyotes locate the nests, the history of coyotes on the island, and if any actions should be taken to communicate the presence of the coyotes on the island.

Dr. Heidingsfelder asked that the members unable to attend the meeting provide a written update prior to the meeting.

VIII. Citizen Comments:

None

IX. Chairman's Comments:

None

X. Committee Member Comments:

None

XI. Adjournment:

Mr. Bundrick motioned to adjourn the meeting at 2:28 pm. Ms. Sager seconded the motion, and it unanimously passed.

Submitted by,

Petra S. Reynolds, Town Clerk

Approved by,

Jim Jordan, Chairman

Date

Town of Kiawah Island 2023-2024 Proposal

Project Title: Kiawah Island Dolphin Education Program

Applicants: PI: Lauren Rust, Lowcountry Marine Mammal Network, Lauren@lowcountrymarinemammalnetwork.org ; Collaborator: Wayne McFee, National Ocean Service, Wayne.mcfee@noaa.gov

Project Description:

“Strand feeding” is a unique hunting behavior in which bottlenose dolphins (*Tursiops truncatus*) work together in small groups to herd fish towards the shore. They then use a powerful wave to push the fish onto the shore and then lunge onto the shore to grab the fish. Giving the dolphins their space while strand feeding is important to ensure they are not harassed and this specialized hunting strategy is not disrupted. Each year, NOAA Fisheries receives reports of people trying to illegally interact with (touch, chase, or swim with) or even hand feed the dolphins as they strand on the beaches of Kiawah Island, South Carolina; these interactions are violations of the Marine Mammal Protection Act (MMPA). The purpose of this project is to reduce disturbance to strand feeding dolphins and minimize violations of the MMPA, as well as better understand the local dolphin population and this feeding strategy. Components of this project include community outreach on/near the beaches where dolphins are known to strand feed, as well as distribution of outreach materials throughout the Kiawah Island Community. Also, data will be collected to help biologists better understand this unique strand feeding behavior (i.e., frequency, number of dolphins, photo documentation).

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.

This project aims to increase awareness of the importance of maintaining a distance from strand feeding dolphins and how to responsibly view them without causing harassment during important foraging activities, thus, preserving this extremely unique viewing experience and allow for Kiawah Island to become leaders in this conservation effort. Identifying feeding hotspots will allow us to focus conservation efforts on those areas as well as understand the impacts on individual strand feeders if these habitats are lost or if the behavior is abandoned. Implementation of an educational program will involve 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 will establish relationships with the Town of Kiawah to better understand the value of this behavior to the community while working together towards the conservation of a rare and unique behavior.

This project has seen direct benefits from the on-site educators. We have seen fewer human interactions when educators are present and there has been a reduction in harassment reports filed. The dolphin data has also been very useful in understanding the dolphin’s use of the inlet. Twelve individual dolphins have been positively identified as “strand feeders” frequently visiting the inlet

for food. Several of these animals have sighting histories over 20 years long. We have also observed a mother teaching her young to strand feed, resting animals and mating in the inlet leading us to believe the inlet is an important area for the dolphin's home range. We cannot stress enough the importance of the inlet to this portion of the Charleston dolphin population for several behaviors and hope Kiawah continues to support the efforts to protect this area from harassment.

Conservation Plan Goals:

This project will educate local residents and visitors about dolphin conservation, in hope to reduce disturbance to strand feeding dolphins. Educators will educate residents and visitors that Kiawah Island is very unique because it is one of the few places where dolphins are known to strand feed and the public can easily access the area where strand feeding occurs and view this behavior. Development of this land and increased boat traffic has the potential to increase threats and/or introduce new threats to these dolphins. The project will further educate the community about dolphin conservation by requesting local businesses (i.e. hotels, marinas, bait shops, boat retail facilities) to help distribute outreach materials. Dolphin conservation educational displays will be set-up at local events and presentations given to local community groups. Lastly, more interpretive signs about strand feeding will be installed.

Problem Statement and Objectives:

The unique strand feeding behavior of bottlenose dolphins on Kiawah Island is threatened by human disturbance.

Objective 1: Increase awareness of residents and visitors of Kiawah Island about conservation of the bottlenose dolphin population that resides in and around Capt. Sam's Inlet.

Objective 2: Educate both local residents and visitors about dolphin strand feeding behavior. Provide information about the unique behavior, laws protecting wild dolphins from illegal feeding and harassment, as well as ways to safely view the behavior and animals without disturbing them.

Objective 3: Gain information about habitat use and individual strand feeding dolphins to help understand the broader impact of habitat destruction and its effects on this population of dolphins.

Methods:

The project will include:

- Volunteer Educators (~20) will be present on the beach, daily through the summer and during peak weekends during other parts of the year, at times in which biologists believe strand feeding is most likely to occur, two hours before to two hours after low tide. They will ask the public to follow the following viewing guidelines to reduce disturbance to strand feeding dolphins and more likely allow them to observe this unique behavior:
 - View dolphins from a distance and get a better view using binoculars.
 - Give dolphins plenty of space and keep dogs away from the shore where dolphins may be present.
 - Avoid loud or sudden movements.
 - Do not feed or attempt to feed wild dolphins! Feeding or attempting to feed dolphins in the wild is both harmful and illegal – this includes throwing fish on the shore back to dolphins while they are strand feeding.

- Collection of data that could be used by PIs, collaborators, resource managers and law enforcement to better understand types and frequency of MMPA violations.
- Collection of data that could be used by PIs, collaborators, and resource managers to better understand the resident population of dolphins, estimate the number of dolphins in the immediate area and/ or how many participate in strand feeding.
- Photos of dorsal fin taken and used to identify individuals and compared to a long-standing photo-id catalogue housed at NOAA/NOS.
- Distribution of outreach materials and installation of interpretive signs. Work with local businesses (i.e. hotels, marinas, bait shops, boat retail facilities) to help distribute materials.
- During the summer, dolphin conservation educational displays will be set-up at local events and presentations given to local community groups and water enthusiasts.

Expected Outcomes:

The expected results of this project include a reduction in disturbance to strand feeding dolphins, an increased number of residence and visitors to Kiawah Island educated about dolphin conservation, and a better understanding of dolphin strand feeding behavior, local bottlenose dolphin population, and MMPA violations. We aim to educate the community about the importance of reducing human interference, both from the beach and water, during this behavior for risk of the dolphins abandoning this behavior altogether. This project will also allow us to monitor the strand feeders to gain more insight into the behavior, and will help us understand if the behavior is increasing or decreasing among animals, identify individual strand feeders through photo-identification and determine if there is seasonality relevance to strand feeding. This information will allow us to continue to monitor the behavior and understand the risks of human interactions. With this information, we could publish our findings in a peer-reviewed publication, provide information content for Kiawah Island website, and facilitate training and materials for Kiawah Island Naturalists.

Anticipated benefits:

The main anticipated benefit is the safety of both humans and dolphins on Kiawah Island. By minimizing disturbances to the animals and their natural habitat, we want to reduce human interactions that can harm or alter the behavior of the strand feeders and preserve this unique foraging strategy. Strand feeders benefit from this behavior and if forced to abandon the behavior, could have detrimental impacts on individuals. Increased knowledge and monitoring of this behavior will allow us to increase our understanding of the use of Capt. Sam's Inlet as a preferred location for this behavior. This information would allow us to provide scientific data on how the development of Capt. Sam's Inlet could affect the dolphin's behavior. Lastly, this project allows us to continue to provide public outreach about how a community can both enjoy and preserve this fascinating behavior unique to Kiawah Island. We want to encourage Kiawah Island residents and business owners to spread this information throughout the community, thus strengthening the impact. During this project, the educators will provide verbal and informational brochures on the beach and at Island events, and give presentations to Kiawah Island community organizations and local school groups surrounding Kiawah Island.

Budget:

Activity	Time	Est. Cost
Beach observations	1 x week/ 52 weeks	\$5,616.00
Additional weekly maintenance (volunteers and data)	4 hr/week/52 weeks	\$2,080.00
Travel	52 site visits/60 mi RT/. 56c mi	\$1,747.00
Program supplies		\$500.00
	TOTAL	\$9,943.00

Budget Justification:

Beach observations are the main focus of the study. 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 (July-June). Interns and volunteers will conduct surveys on the other days so the week is covered during the peak season. The rate is \$18/hour for the 4-hour observation plus two hours of drive time. Four hours of volunteer and data maintenance per week is \$10/hour. Travel is the government mileage rate (.56c) and covers the 52 site visits throughout the year. Program supplies accounts for gear, datasheets, chairs, signs, and t-shirts for volunteers. Lastly, presentations will be given to community members and/or 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.

Collaborations:

The Lowcountry Marine Mammal Network will collaborate with NOAA/NOS as they have 30 years' experience working with our local dolphin population and a network of volunteers that can provide additional help if needed. Their input into project design and dolphin biology will help steer the educational program. NOAA/NOS also holds the Bottlenose Dolphin Charleston Estuarine System Stock photo-id catalogue, which include Kiawah sightings, and will be instrumental in matching individual dolphins from this study. Kiawah project will then continue throughout the year when NOAA Fisheries cannot typically provide interns and would otherwise have no data collected. Collecting data throughout the year is critical in understanding seasonal trends and the proposed project would allow us to collect that data.

Appendix A:

Qualifications:

Lauren Rust is the director and founder of the Lowcountry Marine Mammal Network, an organization dedicated to increasing the community's knowledge about our local marine mammals and ways to conserve their habitats. Lauren holds a BS in Marine Biology from The College of Charleston and MS in Ecology from the University of Wales in which she focused on dolphin daily behavioral budgets. She has 16 years' experience working with several marine mammal species in a variety of settings including nonprofit and government agencies such as NOAA, NIST and The Marine Mammal Center. She has lived in Charleston for over 12 years and is well connected in the environmental community.

Wayne McFee is the PI of the Coastal Marine Mammal Assessment division at the National Ocean Service in Charleston, SC. Mr. McFee has nearly 25 years of experience handling stranding events in South Carolina, and has authored or co-authored nearly 40 manuscripts in peer-reviewed journals related to dolphin life history (diet, pathology, reproduction, age, etc), contaminants, and human interaction. He is a member of numerous government sponsored working groups including the Crab Pot/Dolphin interaction working group, the Mid-Atlantic Unusual Mortality Event Population Dynamics Team, and the Southeast Regional Wildlife Impacts from Marine Debris working group. Mr. McFee received a MS degree in Biology from Northeastern University where he studied mass strandings of pilot whales on Cape Cod.

MAYOR:
John Labriola

TOWN ADMINISTRATOR:
Stephanie Tillerson

TOWN ATTORNEY:
Joseph Wilson



MAYOR PRO TEMPORE:
Michael Heidingsfelder

COUNCIL MEMBERS:
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**2024
ENVIRONMENTAL COMMITTEE
MEETING DATES**

<u>MONTH</u>	<u>DATE</u>	<u>TIME</u>
February	14 th	1:00 PM
April	10 th	1:00 PM
June	12 th	1:00 PM
August	14 th	1:00 PM
October	9 th	1:00 PM
December	11 th	1:00 PM

Kiawah Island's Environmental Committee regularly meets on the second Wednesday, bi-monthly at 1:00 pm in the Municipal Center's Council Meeting Room.

If you should have any questions regarding this schedule, please call Town Hall (843) 768-9166.

Meeting agendas will be available 24 hours in advance of meetings.