

Town of Kiawah Island
ENVIRONMENTAL COMMITTEE MEETING
Virtual Meeting via Zoom
July 14, 2020; 2:00 PM

Minutes

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

II. **Roll Call:**

PRESENT: Jim Jordan, Chairman
Jim Chitwood
Jim Sullivan
Lynne Sager
Jane Ellis
David Pumphrey
Pam Wilson
Scott Nelson
Jack Kotz
ARB: Sara Senst
KINHC: Lee Bundrick
KICA: Matt Hill
TOKI: Aaron Given

ABSENT: John Leffler
Doug Walter
KIGR: Liz King

III. **Approval of Minutes:**

None

IV. **New Business**

None

V. **Old Business**

A. **Kiawah Landscaping Workgroup (Grow Native)**

Mr. Jordan stated the Landscaping Workgroup developed the Grow Native Program. While there was no update to that program, additional plants were planted in Nature Trail at Town Hall this winter, with work ongoing for the interpretive signage to be placed along the trail.

B. **Shorebird Stewardship Program**

Mr. Given indicated there was a pause in the Shorebird Stewardship Program due to the coronavirus but underway again with stewards practicing social distancing and using masks when necessary. He stated that despite the lack of stewards engaging the public, this year was good nesting year with a large colony of Least Terns nesting on the East End, along with American Oystercatcher and Wilson's Plover nests.

C. **Flood Mitigation and Sea Level Rise**

Mr. Jordan indicated that the tidal station that was previously discussed had been installed on the

Parkway Bridge. The real-time data being provided by the station will be available on a soon to be released public page. He presented a draft of the page that updates every fifteen minutes, providing the most current water levels along with a comparison with the NOAA tide predictions of the area. He noted that while a real-time weather station was originally going to be placed with the tidal station, a more suitable location was secured on the roof of the Timbers oceanfront building. The weather station provides information on temperature, humidity, wind speed direction, and rainfall that is tied to the tidal-station page providing real-time information during a storm event.

Mr. Jordan stated that following the adoption of the Sea Level Rise Report, the Town had taken some initial steps in developing a plan to provide future actions and benchmarks.

Mr. Chitwood, a member of the group working on the plan development, indicated the work being done by the Town, studies being done by the Conservancy along with the flood mitigation work approved by the Community Association was a start. Still, the Mayor was concerned about how to institutionalize the efforts moving into the future. With the support of the Town and the Community Association, the workgroup created a long-term adaptive management plan. The first step was to identify and track the key issues and thresholds with the information provided by workshops and surveys on concerns from property owners, stakeholders, and the community. The first stage of identifying thresholds should be completed by the end of November with work on trigger points, measurement, and management plans beginning next year.

D. Grow Native/Parkway Landscaping

Mr. Jordan stated that work on the Parkway paving project was nearing completion. The next step of the project, the landscaping, was put out for bid with the Town receiving several complete bids. Artigues Landscaping was selected to complete the project based on a design modified by Council to concentrate more on the areas of the Parkway and less on the roundabout and the area around the Freshfields entrance. Work on the project is expected to begin in the next several weeks with completion in the fall.

E. Rodenticides/Wildlife

Mr. Jordan reviewed the issues surrounding the apparently widespread use of Second-Generation Anticoagulants (SGAs) and the negative impact they have had on the Kiawah bobcat population and wildlife. SGAs are used to kill rodents, who consume the bait, accumulating super-lethal concentrations of the poison. These dead or dying rodents are eaten by a predator, such as bobcats, building up SGAs that can lead to a lethal level in the body and ultimately death.

Mr. Jordan discussed the effects on the bobcats by reviewing the known SGA deaths of the last two years and the results of the blood testing that was done earlier this year. He pointed out the mortality rate of collared bobcats in 2019 was 66%, and in 2020 to date at 50%, historically, the mortality rate was 10% or less. With the constant increase in mortality and no new genetics coming in from outside the area, there is a significant risk of decreased survival and the possibility that bobcats could cease to exist on Kiawah.

Mr. Jordan discussed the limited success with requesting pest control companies, homeowners, and other entities to stop the use of SGAs, along with efforts taking place with the assistance of the Clemson Department of Pesticide Regulation and the internal development of the Bobcat Guardian program.

Committee members engaged in an in-depth discussion of the inability of the Town to regulate or ban SGAs, who is using SGAs, importing bobcats onto the island, and the strategy to pursue an

educational plan, voluntary compliance, consumer-driven strategy to eliminate the use of SGA products on the island.

F. Deer Management

Mr. Jordan stated that the number of Bobcats on the island has decreased, and the deer population has increased significantly due to the reduction of the Bobcat population. The threat of an increase in the possibility of vehicle/ deer collisions and an increase in shrubbery damage means that for the first time in the history of the Town, a deer removal program will be conducted in the fall to remove approximately 100 deer.

VI. New Business

A. Marsh Vulnerability and Groundwater Study Updates (Kiawah Conservancy)

Lee Bundrick provided an update to the committee on the current status of the projects with the Town, as well as their preliminary findings. Produced in early June was an interim report to the Town detailing current progress. This is a joint interim report drafted by members of the project teams from the Kiawah Conservancy, College of Charleston, and South Carolina Sea Grant Consortium. Lee presented the information to Town Council on July 7, 2020.

Groundwater Table Study proposed in 2019 was focused on investigating groundwater conditions, specifically elevation and saltwater intrusion. The project utilizes a series of shallow groundwater monitoring wells across the island and monitoring for water level and salinity. They were installed using an Eijkelkamp auger, bailer, casing system developed for agricultural research in saturated soils. Mr. Bundrick described the installation of wells and monitoring equipment used and referenced a video produced by the Conservancy detailing the processes. There are currently 15 operational wells throughout Kiawah Island with measurements being taken with various equipment, including continuous dataloggers which are currently deployed in the field. Described the current data being collected and noted a seasonal change in groundwater table elevation between mid-April and mid-May due to plant growth in the spring. Looking to install 10 additional wells and equipment by the end of the project.

Marsh Vulnerability Study proposed in 2019 is focused on identifying changes to vegetated shorelines within the tidal marshlands and cataloging infrastructure near or adjacent to the marsh using mapping software. Information from the study will help in drafting the Town's Marsh Management Plan and identify areas for habitat restoration efforts. Aerial imagery from 8 different years between 1977 and 2017 were used to identify marsh shorelines, with a preference for imagery taken during low tide events. The extent of shorelines covers an area between the Stono River, North Edisto River, and the southern bounds of Johns Island. Shorelines from two areas were shown and discussed: (1) at the confluence of Bass Creek and Cinder Creek and (2) the marsh east of the Kiawah River Bridge. Currently working to clean up the data to analyze these shoreline changes through **Analysis of Marsh Boundaries Using R (a/k/a AMBUR)**. AMBUR was developed by Chester Jackson to study the shoreline changes around Jekyll Island in Georgia and the South Carolina coastlines. Data on structures in and adjacent to marsh have been mapped by the project team. Lee showed an example of this work within the area around Rhett's Bluff.

VII. Reports:

A. Town of Kiawah Island

Mr. Jordan gave an update on the Clemson alligator research project by stating that fieldwork of the study being conducted over the past year is near completion. The concept of the study consisted of capturing and placing GPS transmitters on alligators and then conducting flight response surveys to determine the effects of capture on the behavior of the alligators. He noted that the final survey would be conducted in October, followed by the graduate student completing a dissertation and

recommendations.

Mr. Jordan stated the past six weeks have consist of a number of alligator calls, with the Town and the Community Association staff responding to more the sixty calls and the removal of nineteen alligators this year. He noted that the normal is two to six removals per year.

Mr. Jordan gave an update on the Bobcat GPS by stating that three females and one male were collared with one male and one female dying. The remaining two females have not shown any denning activity and will likely not have kittens this year.

Mr. Given gave an update on the work he is conducting on the trapping of Painted Buntings at homes on the island. In addition to banding the birds, he stated that he was still participating in the geolocator project in collaboration with the Smithsonian Institute. The placement of the fifteen additional geolocators, targeting females, should be complete this week. Mr. Given also noted that seven birds tagged in the previous year had been recaptured, and the geolocators removed to retrieve the data. He reviewed some of the preliminary data retrieved in the previous years that primarily targeted males.

Mr. Given stated the nanotag study would be conducted this fall again on Kiawah. The project in which birds are fitted with nanotags and their movements monitored by automated receiving tower stations will focus on the long-distance monuments of the birds as they move south.

B. Kiawah Island Community Association Land & Lakes Management

Mr. Hill indicated noted that the ponds seem to be healthy except for a few days of clouds and heavy rains that pushed close to a fish kill in a few ponds but was resolved by some sunny days that recovered the dissolved oxygen needed.

C. Kiawah Island Golf Resort

None

D. Kiawah Island Architectural Review Board

None

E. Kiawah Conservancy

Mr. Bundrick stated the Conservancy received approval from the National Fish and Wildlife Foundation for a \$125,000.00 in funding for research resilience type projects. The projected timeframe is from October 2020 to February 2022. It will involve discussion with many of the island organization on nature-based restoration projects, different types of flood mitigation projects along with collaboration with the Adaptation Management Plan Task Force.

Ms. Ellis stated the Conservancy Environmental Science Committee and Executive Board discussed the rodenticide problem and appointed an ad-hoc rodenticide committee to research the chemical and other possible options. She stated that Mr. Gilliam, the Chairman, and the committee were working very hard with the Town and voted to recommend supporting the Bobcat Guardian program, along with a temporary ban and elimination of SGAs. She also noted that the committee had contacted other organizations to involve them in supporting this initiative.

Ms. Ellis also called attention to a presentation, made by the Committee on the use of mosquito misters. She indicated that research done on the ecological health issues the misters cause on the island had created a discussion on the topic as a future initiative to be addressed.

F. Turtle Patrol

Ms. Sager stated that as of today, there were 291 nests on Kiawah, and despite lower than the unprecedented amount of nest last year, the number is higher than the year prior. She indicated that Kiawah had the first emergence in the state. Still, inventory of the nest was delayed, noting that DNR is not allowing nest inventories to be released to the public in an effort to prevent huge crowds gathering.

VIII. **Citizen Comments:**

None

IX. **Chairman's Comments:**

None

X. **Committee Member Comments:**

Mr. Hill made additional comments to the earlier report made by Ms. Ellis on the mosquito misters. He stated that the mosquito misting system is very similar to the rodenticide issue in that both are non-target mortality via pesticide. He noted a ban was put in place by the Community Association in 2007 but was rescinded by the Board in 2008 due to negative feedback from homeowners. With systems currently existing on the island, should discussion take place on what can be done to the system installation to make them less detrimental to non-target insects.

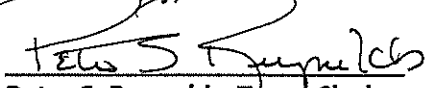
Committee members discussed the issue with systems that are directed into the ecosystem outside of property perimeters; the inability to ban mosquito misting chemicals, a recent ordinance in another state which was successful in banning the equipment used to disperse the misting chemicals and similar consideration should be given to mosquito chemicals as given to rodenticides.

Mr. Pumphrey called attention to an article in the Island Connection that Seabrook Island Council discussed having a British film crew coming to the Seabrook side of Captian Sam's Inlet to film the strand feeding dolphins. The filming scheduled for September would be part of a film on animal behaviors of note. Mr. Jordan stated a local cameraman that had done a lot of filming on the island had requested to film from the Kiawah side of the inlet and was permitted with a few minor restrictions.

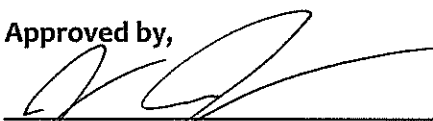
XI. **Adjournment:**

Mr. Pumphrey motioned to adjourn the meeting at 3:37 pm. The motion was seconded by Mr. Chitwood and carried unanimously.

Submitted by,


Petra S. Reynolds, Town Clerk

Approved by,


Jim Jordan, Chairman

9-8-20
Date