

## Tony Elder – KICA’s Emergency Management (& other items) 3-29-18

Members present: Leffler, Cheney, Hill, Campbell, Ellis, Conner, Mezzanotte

### I. Emergency Management

- A key to successful Emergency Management is the coordinated effort of KICA, TOKI and the Resort during the kind of SLR-related flooding events that we see today and will increasingly experience in the future. Another key is marshaling the resources expected to be needed for any storm event onto Johns Island (better yet at Kiawah) before access is cut off (Takes FEMA at least 72 hours to provide any assistance after the event is over). TOKI has access to live camera feed at US 17 and Main Road (near Gilligan’s) to monitor conditions affecting access to Johns Island and expects similar camera feeds at the access points from James Island on Maybank Road. Cameras are dependent on electrical power and Comcast being operational. Dr. Levine’s work and models of expected flooding may also be very useful in assessing the likelihood and timing of disruption.

- Moving Kiawah access control to the roundabout would provide a much better situation than the current location at the main gate. This requires coordination/agreement among KICA, TOKI, and Seabrook.

- One clear need is a higher freeboard vehicle (higher than firetruck) that can carry passengers who need evacuation through high water and a boat for even deeper water. It would be best if these vehicles were stored at the new Town Center. These vehicles are most likely to be used during an event to care for anyone with a health emergency that remained on island, as well as providing early access after the event to begin addressing issues from the event.

- We need to provide information to residents who might need help evacuating as an event approaches about who to contact and how to contact them. Residents with special needs, e.g. medical, must be a particular focus.

- When the island is under mandatory evacuation, key KICA and TOKI staff members are the last to leave. They block the inbound lane at the Main Gate before leaving. The waste treatment plant leaves 2 people on the island & the resort leaves some staff at The Sanctuary.

- One regular, major contributor to flooding along The Kiawah Island Parkway, Governor’s Drive, and other island roads is pine straw in roadside landscaping. The drains are usually clear before the flooding but water washes pine straw down the drains frequently clogging the drain and leading to road flooding. After the storm, drain cleaning shows that the culprit is pine straw. There is a need for an aesthetically pleasing alternative that will stay in place during flood conditions. As water events increase with SLR, this will be an increasing problem.

- KICA recently planted about 300 feet of wedilia (*Sphagneticola trilobata*) in shaded areas (Canvasback fishing dock, Flyway, and Jackstay) that will not support grass or other vegetation. It is a salt and drought tolerant vine. (Planted at Canvasback fishing dock – Flyway & Jackstay). Post-meeting research found that wedilia is considered an invasive and can be very difficult to control once planted, so an alternative should be considered.

- During the recent storm surge event, water level at the intersection of Beachwalker and the Parkway rose from a few inches to over a foot (impassable to normal vehicles) in a matter of minutes and took 24 hours to drain off after the event.

- Another need is for the distribution of water level marking stakes along The Parkway and Governor's Drive in advance of a major storm event so that drivers can avoid stalling out on these major roads blocking traffic and perhaps, needing rescue. There should be alerts issued about the stakes as they are deployed.

- A major problem that is likely to get catastrophic over the next 20-30 years as sea level rises and storm surge continues (even without being associated with a hurricane event) is the Parkway near Little Rabbit. Storm surge has already flooded this part of the road a few times. As SLR continues there is likely to be major damage here and eventually total breach of the roadway.

- It is our understanding that an engineering review of the Parkway is underway. Any work done should anticipate SLR changes. Road elevation is needed and the Town may also need a wall/berm in the near future. Long term, a bridge may be needed. Tony Elder says that there are some temporary bridges that can be available through the National Guard for dealing with recovery from extensive storm damage. We need to understand now what is available and how to get in an early request for their use. The Town needs to work through the County and then the State to be able to access such resources. It is important that the Town and KICA representatives have a current and ongoing relationship with the County to plan for flooding problems in the years to come.

- Another flood prone area on the island that might call for a temporary bridge is 100 Ocean Course Drive, the Bass Creek Revetment.

- Drones are used to assess the island before KICA staff returns (TOKI also has a drone for naturalist's use normally). There is a need to ensure that there are enough drones and in ready-to-use condition, particularly as the number of SLR events increase.

- The maximum size hurricane event seen on Kiawah since Hugo is Category 1. All emergency preparedness measures discussed are only useful for Category 1 and 2 storms. Above that, evacuation must be the action with post-storm recovery the primary focus.

- Flooding continues to hit different areas each time we have storms due to the state of the island's underground pipes. Although there is an ongoing effort to replace and fix our

underground storm drainage infrastructure, we will continue to experience sinkholes (collapsed drainage) and drain clogging in the foreseeable future.

## II. Other items discussed

- We need to be sure we adequately address the changes we face over the next 20, 30 and 50 years (not just the current issues that are occurring). How do we keep the island functioning as SLR continues to increase? It is important that we stay focused on the impacts resulting from SLR and changing climate, and not get too far involved with other issues best addressed by other entities.

- We discussed meeting with KICA, the Resort and ARB/Partners now to be sure they are aware of our work and when our report is coming out. We decided that it would be best to wait until our work on the report is complete and then offer them an advanced preview, both by access to the draft text and by verbal presentation, before it is issued. We also need to present to the Environmental Committee as a whole even before engaging the senior levels of these entities, since we are a subcommittee of the EC. All the entities already have staff members involved in our work or on the EC.

- Ellis agreed to take the need to replace pine straw to Jim Jordon's new subcommittee and encourage them to find a solution that KICA would be willing to use and the ARB and community can accept.

- We discussed how to approach the write up of our report and agreed that our outline should be our guide and that we are likely to have some gaps where we may need to say that we do not yet have good ideas and that some good information will need to go to an appendix in order to keep the report logically organized and readable. Using the bulleted outline as our guide should help make the writing of each section easier and more consistent to read. Each section might be addressed in only a few pages.