



Beach Preservation Ad Hoc Committee Meeting
Friday, May 3, 2024, 9:00am
1207 Palm Boulevard, Isle of Palms, SC and
broadcasted live on YouTube: <https://www.youtube.com/user/cityofisleofpalms>

MINUTES

Present: Andrew Vega, Dan Slotchiver (via Zoom until 9:25am), Tim Ahmuty, Council members Pierce and Miars, Mayor Pounds, Administrator Fragoso, Director Kerr

Also present: Steven Traynum (via Zoom)

Absent: Council Member Campsen, Cindy Solomon

1. Call to Order

2. Discussion of optimal beach profile and goals for future beach conditions

Discussing an optimal beach profile, Mr. Traynum said, “The minimum healthy beach volume really only comes into play, again, this is in theory, when you’re putting things on paper, when you’re looking at doing our initial merch to get the beaches to a minimum standard. Anything after that, maintenance projects really are more of a function of what the documented erosion rates are. So when you are planning your financial models, there’s one part that’s getting back to this deficit volume. That’s the minimum healthy beach condition, and that is where we can pick a number, 400 to 450 cubic yards per foot. It’s fairly simple to come up with the existing deficit volume.”

He added, “The more important number in the future is going to be what is the historical erosion rate, and that is where we look at our data we had for the past 15 years or so.”

Long-term sand volume data can be used to determine what needs to be replaced each year. Mr. Traynum believes that the volume is less than expected. He also said the sand loss of the last two years is an outlier and probably not a trend. He said the sand losses and gains over the last 15 years have been within normal ranges. The City will need to determine when the beach is healthy and when it is unhealthy and use those “unhealthy” conditions to trigger the permitting process.

Mr. Traynum noted that the changes in the Breach Inlet are cyclical and anything that happens there needs to be discussed with Sullivan’s Island as changes there directly affect that island.

Mr. Traynum said, “My initial kind of thoughts or recommendations right now would be to pick an erosion rate that, I would say around 50,000 yards a year, which is substantially more than the historical rate, but it doesn’t outweigh the past two years. Then you’re looking at a 500,000-yard volume every 10 years.” He said 500,000 cubic yards of sand is the minimum amount of sand to place in order to be cost effective.

He continued, “I think there are a lot of advantages to trying to get a 10-year project because it is much more likely to be able to do that along with an east end project that has been on a 10-year interval. You are obviously reducing mobilization, but you’re also reducing the impact to the beach with beach closures and environmental impact of dredging, and then being able to spread out the economics of scale.”

He shared that the USACE plans to execute beneficial use projects using “sand dredge from the waterway” every 4-5 years.

The Committee briefly discussed the 2007 and 2018 renourishment projects. Specifically, the Committee wondered whether or not it was prudent to put down more sand than is needed to protect from future erosion over a longer period of time. Mr. Traynum said it is possible to build too far out into the inlet, and in that case, the City would be putting money into sand that will move towards Sullivan’s Island. Using sand from Breach Inlet to put on the beach is a different type of project requiring different and specialized equipment and permits. Director Kerr stated that shoal management in the form of sand scraping and trucking in sand is the best economic option between projects.

Discussion ensued about triggers to determine the need to begin the permitting process for a new project. Mayor Pounds asked how much of the beach is “healthy” now and what success looks like, what percentage of the beach needs to be healthy at all times. Director Kerr referenced a photograph of the beach detailing those parts of the beach that currently fall below 400/450 cubic yards of sand. Committee members asked if 400 or 450 cubic yards of sand is better and wondered if the extra 50 cubic yards provides extra time between nourishments.

3. Discussion of developing recommendations for beach preservation goals and strategies

Committee members discussed what they would like to see next to begin developing recommendations. The economics, financial analysis, and projected life expectancy of 400 vs. 450 cubic yards of sand will be presented along with a plan for how to get to either profile. The Committee would like to know if a survey of the north end will help with the development of the nourishment plan. Lastly, what indicators will staff need to look at to present to City Council a plan to start filing permits for a future project, i.e. if the beach monitoring report shows the beach has lost X amount of sand in X period of time, staff will go to Council to discuss the permitting process.

4. Next Steps

The Committee will meet on Friday, May 17 at 9:00am.

5. Adjournment

The meeting was adjourned at 10:16am.

Respectfully submitted,

Nicole DeNeane
City Clerk