



**TOWN OF HOLDEN BEACH
BOARD OF COMMISSIONERS
REGULAR MEETING
FRIDAY, APRIL 6, 2018 – 7:00 P.M.**

The Board of Commissioners of the Town of Holden Beach, North Carolina met for a Regular Meeting on Friday, April 6, 2018 at 7:00 p.m. in the Town Hall Public Assembly. Present were Mayor J. Alan Holden; Mayor Pro Tem Mike Sullivan; Commissioners Pat Kwiatkowski, Joe Butler and John Fletcher; Town Manager David W. Hewett; Town Clerk Heather Finnell; Shoreline Protection and Recreation Manager Christy Ferguson; Town Attorney Noel Fox and Attorney Clark Wright, Legal Advisor to the Board with Respect to Beach Protection and Other Environmental Issues. Commissioner Peter Freer was unable to attend the meeting.

Mayor Holden asked for a moment of silence and then called the meeting to order.

Commissioner Fletcher announced that Commissioner Freer is not here because he is in Charlotte with his son who has been diagnosed with Aplastic Anemia and another serious blood disease. He has a sister who is qualified to do a bone marrow transplant which should be done within the next few weeks. Mayor Holden said we will all keep his family in our prayers.

PLEDGE OF ALLEGIANCE

AGENDA APPROVAL

Attorney Wright said he would like to have a brief closed session before his report, Item 7 to pass on new information to the Board. Mayor Holden said he will add it as Item 6.5.

Motion by Commissioner Fletcher to approve the agenda as amended; second by Commissioner Butler; approved by unanimous vote.

APPROVAL OF MINUTES

Mayor Holden asked if anyone objected to approving all three sets of minutes.

Commissioner Butler requested the word significant be added before findings in two places on page three of the February 20th minutes.

Motion by Commissioner Fletcher to approve the minutes as amended. The Board all agreed.

PUBLIC COMMENTS ON AGENDA ITEMS

No comments were made.

EXECUTIVE SESSION PURSUANT TO NORTH CAROLINA GENERAL STATUTE 143-318.11(A)(3), TO CONSULT WITH THE TOWN ATTORNEYS

Motion by Commissioner Fletcher to go into Executive Session at 7:07 p.m.; second by Commissioner Kwiatkowski; approved by unanimous vote.

OPEN SESSION

Motion by Commissioner Fletcher to go back into Open Session at 7:14 p.m.; second by Commissioner Butler; approved by unanimous vote.

Mayor Holden announced no action was taken during Executive Session and reviewed the rules for speaking.

REPORT AND DISCUSSION (NO ACTION TO BE TAKEN) ON FINAL ENVIRONMENTAL IMPACT STATEMENT AND RELATED TERMINAL GROIN PROJECT ISSUES BY ATTORNEY CLARK WRIGHT, LEGAL ADVISOR TO THE BOARD WITH RESPECT TO BEACH PROTECTION AND OTHER ENVIRONMENTAL ISSUES

Mr. Wright said the Town is in the middle of a decision making process by the Corps, as well as by the Board. The final decision the Corps will make is a document called a Record of Decision (ROD), which is a both a decision on the permits that are being sought from the federal government, Section 10 and Section 404 of the Clean Water Act, as well as the final step in the NEPA process. The NEPA document is designed to inform the federal decision maker and the public about the various impacts and consequences associated with the proposed activity and the range of alternatives. Mr. Wright stated that the state process cannot formally start until the federal process is to at least the stage we are in now.

SPENCER ROGERS, NC SEA GRANT

Spencer Rogers, a coastal engineer and geologist with NC Sea Grant, explained that in North Carolina we have migrating inlets that are moving rapidly along the shoreline in one direction or another. In those cases you can think of them as the inlet shoreline is moving up and down the island. One island accretes as the other island erodes. A classic example is Topsail Inlet at the North end of Topsail Island. It is moving about 90 feet per year to the south every year and the island south of it is eroding at a similar rate. There aren't many migrating inlets left in the state. In most of the inlets we have, migration is not the actual primary problem. The problem is not on the inlet shoreline between the island, it is on the ocean shoreline in the vicinity of the inlet. In those cases, working with the Science Panel for Coastal Hazards for the CRC, what we have identified in some pending ocean hazard area efforts is the areas where the variability adjacent to the inlet is considerably different than the areas away from the inlet. Mr. Rogers said in those areas you don't need to just worry about a hurricane, you need to look at the inlet shoreline to see where it is going and what it is doing at the same time. In Tubb's Inlet, the west side is accreting and the other side is eroding. These are frequently tied to the location of the primary offshore channel. In this case it is hugging the left hand side which causes accretion on the left side and erosion on the other. That only lasts a certain length of time before it shifts back with a more efficient channel going the other way. Then those erosion issues reverse. The characteristics of these near inlet areas is that they oscillate a lot faster than non-inlet areas.

Mr. Rogers reviewed erosion statistics going back to at least 2009 that were produced by the Division of Coastal Management. Statewide 66% of the state is eroding, 34% is accreting or relatively stable. If you separate that out to inlet and non-inlet areas, these inlet hazard areas account for about 23% of the shoreline. If you look at non-inlet areas, the median erosion rate is 0.9 feet per year. The number in the inlet hazard areas jumps to 3.4 feet per year. Erosion is about five times faster in these inlet hazard areas than it is in the non-inlet areas. Mr. Rogers talked about variability. He said to expect change when you get near inlets and you can usually expect problems.

Mr. Rogers said a question he gets fairly often is why we are considering terminal groins. He said he thinks there is a very clear reason for that. Having followed beach nourishment in North Carolina for a long time, it has been a learning exercise as we have gone along. He said first it was to just build some sand on the beach, but it doesn't work. Beach nourishment only works when you maintain it. He said the other thing we are learning is it is not cost effective in high erosion rate areas. He said high erosion areas are often around the inlet. He talked about a recent Ocean Isle Beach project where they lost their sand within two months. A jetty by definition is a navigation structure. It is used to stabilize a navigation channel, it is not there for erosion control. A groin is a structure that is perpendicular to the shoreline used for shoreline stabilization. A terminal groin is a groin located at the end of a sand transport system. Jetties for common projects for navigation in inlets are in thousands of feet, mile type lengths. Terminal groins are in the order of five to ten times smaller in most cases. Groins and jetties are sand traps. The structure will vary by size of the inlet. He reviewed impacts of different jetties and showed examples of terminal groins. Mr. Rogers said he is on record for recommending to the Coastal Resources Commission (CRC) and to the Legislative Study Commission that he thinks the CRC should have terminal groins in their permitting kit. He thinks it is a reasonable option for them to consider in some inlets.

FRAN WAY, APPLIED TECHNOLOGY AND MANAGEMENT

Fran Way, a coastal engineer with Applied Technology and Management introduced his firm. He showed images from the 27 structures that were lost on the east end of the island from 1993 – 2008. He said if you go back further into the 1970s, there are even more structures that were lost. He talked about erosion in the 1980s and 1990s. He said it was bad at that time. He said the Town had some erosion up to 20 cubic yards per foot during Hurricane Hannah in 2008. He said 20 cubic yards per foot is what FEMA says a 100 Year Storm will take away. Hurricane Hannah was a particularly significant event, especially along the east end. He said a year or two after this is when the Town started the terminal groin process. The erosion is very high in that area. He showed an image from the 1990s where there are a bunch of platted parcels in the water. The Town has been doing a great job keeping up with erosion over the past 15 - 18 years. The Corps had stepped up a little bit, but now Corps' funding has dwindled over the past few years. The state has picked up their funding, especially for dredging related projects. In the 1970s there were 15 groins along the east end of Holden Beach. In some of the papers, they were documented as working, but they were temporary. Back in 1973, the Corps in their general design memorandum was thinking about using jetties along the Lockwood Folly Inlet. He said the county has recently expressed an interest in jetties regarding navigation issues. He said he has heard some other counties in North Carolina have considered jetties at some inlets for safer navigation.

Mr. Way said inlet structures are common features along the coast. From Long island to Florida, almost 50% of the 154 inlets have some type of structure. He showed slides with existing structures. The Bald Head Island terminal groin has been doing well since it was built. The structure is mostly buried. He said that's what we are planning for the east end terminal groin.

Mr. Way reviewed the preferred alternative for the Town. He said the east end nourishment happens about every two years. He explained what happens to the material after the nourishment. He said this groin is to prevent material from going straight back into the inlet and having to dredge it back out again. He explained the design and that they performed extensive numerical modeling. It was reviewed by multiple engineers. He discussed the modeling. He said the modeling was run for 12 years, at four year intervals. The design is increasing beach nourishment longevity from two years to four years. In terms of the analysis they submitted, over the 30 year cycle the nourishment and groin cycle saved \$12 million compared to the nourishment only. With all of the alternatives, putting the sand on the beach is the most expensive component of the project, whether it be the groin or nourishment only. To increase that longevity means you are saving money. They designed it so there are no down drift effects to the central reach shoreline. Monitoring would occur. Mr. Way said this is a really long process that

we are many years into. We are really close to completing the Corps' EIS process. The beach looks really good right now. The Central Reach Project (CRP) put about 1.3 million cubic yards of sand down about a year ago. The CRP was permitted in 2012, but it wasn't constructed until five years later. His recommendation is to get through the process to get the permit, but you don't have to build right away or ever. That gives you an extra tool.

PROFFESOR ANDY COBURN, WESTERN CAROLINA

Mr. Wright read Andy Coburn's letter that he mailed to his office on April 5th (hereby incorporated into the minutes).

GEOFF GISLER, SELC

Geoff Gisler, an attorney with the Southern Environmental Law Center stated that since the state lifted the ban on terminal groins in 2011, they have been closely monitoring this project, Ocean Isle, Figure Eight and Bald Head Island. He said the National Environmental Policy Act (NEPA) puts out information to promote a public discourse. It gives decision makers information to base their decisions on. It is used to comply with other laws. Mr. Gisler said it promotes public discourse by evaluating the environmental baseline. It looks at a range of alternatives. It is intended to give decision makers objective, accurate information. He said when it doesn't do that, it doesn't comply with NEPA. He said in the FEIS the different alternatives were modeled for four years. It started with the 2008 shoreline as year 0. It evaluated six alternatives. He will talk about three. The first is the no action/ status quo. The second alternative is if the Town does nothing and just walks away from nourishment. The other alternative he will discuss is the proposed terminal groin. Mr. Gisler stated that the modeling revealed that the issue is limited to the east end. He said if the terminal groin is built it is predicted that four years later 16 properties will be at risk. If you do nothing 28 properties are at risk according to the model. He stated that at most the groin as modeled would provide protection to 12 more properties. He said if you take out the Dunescape properties, it is nine or ten. Mr. Gisler said he is going to compare what the Town is doing now, Alternative 1, compared to what the beach will be like with a terminal groin according to the four year modeling run. He said the modeling was broken into three zones. He is focusing on the western zone. The modeling predicted that if the Town continues doing what we are doing now, we will have 27 feet more of beach. If we build the terminal groin, it would add eight additional feet. He reviewed costs of the different alternatives. He said the numbers in the analysis are not reliable. Mr. Gisler said they will closely follow what the Town does. They recommend the Town withdraw the permit with the Corps, step back and look at the success the Town had over the past 15 years. He said they work closely with local property owners, the North Carolina Coastal Federation and Audubon North Carolina. They are all very concerned about the permits. When a CAMA permit is issued, there are twenty days that any party has to file a challenge to the permit. The groups he works with will need to make that decision in 20 days. He said the Clean Water Act permits have a longer timeline, but it is not a timeline that can wait. He said there is a better path forward.

MIKE GILES, NORTH CAROLINA COASTAL FEDERATION

Mike Giles, recently retired coastal advocate with the North Carolina Coastal Federation, stated they are against hardened structures, terminal groins, jetties etc. He said there are better ways. He said look at the beach now. He said two years ago, they held a meeting here and had over 150 people attend the meeting. He said the Town could have saved the money spent on the FEIS if decisions were made then when this information was available. Coastal Federation recommends that all of the shallow inlets be dredged minimally. He talked about dredging inlets correctly with the right engineering. Mr. Giles stated that if the CAMA permit is issued, the Coastal Federation will challenge the permit, so the Town will have that additional expense, not only on the CAMA permit, but the Clean Water Act permit and the Corps' permit. He said he assumes the property owners association and Audubon NC would join in that.

REPRESENTATIVE OF DUNESCAPE PROPERTY OWNERS ASSOCIATION

Jay Holden read a letter (hereby incorporated into the minutes).

REPRESENTATIVE OF HOLDEN BEACH PROPERTY OWNERS ASSOCIATION (HBPOA)

John Witten from HBPOA provided background on the HBPOA's involvement with the terminal groin process. He said he is the chairman of a committee on terminal groins. He said we have seen a successful protection of the beach for four years during this process. He said that doesn't mean it will continue forever or that it will cost as little as it has over the past ten years. He said the justification that has been given in the FEIS isn't about environment or oceanography, it is about economics. He said that is what the HBPOA and committee addressed. He said what the FEIS is saying is that with the groin, we will have to do somewhat less nourishment of the beach. He said in the optimistic scenarios we will put 100,000 – 150,000 cubic yards on the beach every four years, instead of every two years to get substantially similar results. Mr. Witten said this is a 30 year commitment. He explained currently, the decision to nourish is made every year. He said if the Town builds the groin, the Town has in effect signed a 30 year contract with the federal government and the state that says the Town will take care of it. He said if you don't nourish the groin it doesn't work. He said a great deal of the cost is not building it, it is in the future. He said the Town would be agreeing to nourishing it and monitoring it for 30 years. He talked about costs with the current method of nourishment compared with the terminal groin's. Mr. Witten stated that the committee concluded that this is too big of a risk. He said there is a reason it is a pilot project. We are the guinea pigs and we are asked to sign a 30 year contract. He compared the CRP and terminal groin projects. We have limited resources and a lot of them are already committed elsewhere. Mr. Witten talked about Fort Macon. Mr. Witten said the taxpayers of Holden Beach would be picking up the bill for the terminal groin here, other places are paid by the federal government. He stated the Town can't afford to take this kind of risk with our limited resources. He said last fall, 20% of the people responding to their survey wanted to build a terminal groin. The rest of them wanted to continue with the current method or not do anything at all. He said the commissioners all said they were opposed to the terminal groin during Meet the Candidates Night. Mr. Witten discussed potential litigation. He stated now it is time to move on and keep doing what we are doing to protect the east end of the island and keep doing what we are doing in the channel.

SUBMISSION OF WRITTEN QUESTIONS ON TERMINAL GROIN RELATED ISSUES BY MAYOR, COMMISSIONERS AND PUBLIC

Question: Was all of the modeling done with old inlet configuration (referencing Figure 7-37 and other photos)

Answer: He said it was modeled mostly with the configuration where the inlet was closer to the Holden Beach side. He said the article with the Civil War Wreck came out about a week ago. They always kept the channel away from that. The channel hasn't been on the Oak Island side for a decade or so. He thinks it was about 2006 when it came over to the Holden Beach side and it has been there for a while.

Question: You (Fran Way) said there are no affects down drift, what are you defining as down drift?

Answer: Mr. Way said they are talking to the Central Reach portion of the beach. The sand travels around. It is designed as a leaky structure to allow some sand to get through to the down drift side. The down drift side in this instance is in the inlet. When he was talking about no down drift impacts, he was talking about the Central Reach Project shoreline.

Question: If down drift is west of the groin, how do you know?

Answer: Mr. Way responded there is a nodule area. You have gross transport that goes both east and west and then you have net transport. At the inlets there is usually a nodule area where the net transport changes from east to west. They documented and modeled the nodule area along the shoreline to be over near Avenue A, by Blockade Runner.

Question: What is the cost of status quo alternative? Is the cost based on the Town's actual past expenditures? If not, why not?

Answer: Mr. Way said that speaks to the length of this process. They came up with the cost analysis in 2012, 2013. Back then there was talk about the state dredging fund and it was established, but it was not funded. In about 2014, the state dredging funds really started kicking into gear. All of the calculations were based on taxpayer funds, they didn't differentiate between federal, state or Town taxpayer money.

Question: If a terminal groin is constructed, will dredging of the Lockwood Folly Inlet continue? If so, will the Town continue to participate in cost sharing and beneficial placement arrangements?

Answer: Mr. Way replied the EIS is a thousand or so pages of material. With that much information, you can pull things out of context or cherry pick other sentences. The modeling does indicate the groin would keep a percentage of the material from going back into the inlet to reduce the sedimentation rates in the inlet, but it is also a leaky structure where there would be dredging still. He said now with the state dredging fund, Oak Island has expressed interest in that area and the county has talked about taking the sand for dredging purposes and putting it elsewhere, not on the east end. That is a real concern for the Town. He said the Town and the Board have been sticking their feet in the sand saying Holden Beach should get priority to that material. There is a lot more pressure for that borrow area, it is a bit of a moving target.

Question: If the sand at the shoreline is moving into the inlet why is the large fillet on the west side?

Answer: Mr. Way provided an example. Mr. Rogers said neither of them will be able to answer a complex question like that without pictures. He said every inlet is a complex combination of shoals and wave impacts, all of which makes an impact on where the sand goes and how it sits around. You can generalize that because of the shoal effects on the shoreline of the island adjacent to the inlet, sand moves into the inlet in both directions. When you get close to the inlet, it is always going into the inlet. It goes offshore with the ebb current and comes inshore with the incoming currents. He said how that works around and if there is a shoal here and not there, it is too complicated to answer in a simple question like that. Mr. Rogers said if you show them some pictures they can tell you why something happened, but you probably cannot predict it.

Question: Will the proposed terminal groin stabilize the inlet or will it still migrate, wag back and forth?

Answer: Mr. Rogers responded that he is not sure. He has intentionally not studied, looked at the report or the design and has no way to comment specifically on what is proposed. He can only answer generic questions.

Question: (Part 1) I understand the bid of the initial construction for the Ocean Isle Beach groin is \$1 million more than the estimated cost of the Holden Beach project, even though the Ocean Isle Beach configuration is 25% shorter. He asked if the estimate of the Holden Beach groin is understated.

Answer: Mr. Way replied that he doesn't think so. They looked at the cost of the Bald Head Island groin and some other groins that were recently constructed. They do not think so.

Question: (Part 2) Does the cost of the groin include any cost for the configuration of the private property required for the anchor segment of the groin?

Answer: Mr. Way stated they are doing a groin rehabilitation project right now on Folly Beach and they looked at costs per linear foot so they are good with that number in regards to Part 1 of the question. Rock prices are coming down a little bit. There are some new players in groin construction which are starting to bring down the costs. Part 2, Mr. Way said when they looked at parcel data, they were careful to stay off other people's parcels so we wouldn't need to do easements. Technically, we do not even need to build the anchor section. The anchor section is 300 feet, where you could almost phase that where if there was an incredible erosion event you could go back.

Question: The EIS estimates the cost to the Town for the loss of tax revenue if the houses west to the groin are damaged from erosion. Is there any cost estimate for the anticipated reduction valuation for the property located at or east of the groin?

Answer: Mr. Way responded he didn't do the EIS. The third party contractor worked with the Corps and also hired economics professors to do an analysis.

PUBLIC COMMENTS ON GENERAL ITEMS

Rhonda Dixon thanked everyone for all of the time and effort put into this tonight. She thanked everyone for presenting. She opposes the groin, but wanted to thank both sides.

Commissioner Fletcher thanked all of the speakers.

ADJOURNMENT

Motion by Commissioner Fletcher to adjourn at 9:12 p.m.; second by Commissioner Butler; approved by unanimous vote.

J. Alan Holden, Mayor

ATTEST:

Heather Finnell, Town Clerk