



TOWN OF HOLDEN BEACH

INLET AND BEACH PROTECTION BOARD REGULAR MEETING HOLDEN BEACH TOWN HALL - PUBLIC ASSEMBLY ROOM

Thursday, December 20, 2018 - 10:00 A.M.

1. Call to Order
2. Agenda Approval
3. Approval of Minutes
 - a. Minutes of Meeting of November 29, 2018
4. Status of Beach and Inlets
5. Discussion and Possible Action on Collaboration with UNCW
6. Discussion and Plan for Comprehensive Long-term Plan
7. Discussion regarding budget items for FY 19-20
8. IBPB Engagement with other Groups
9. Newsletter Update
10. Inlet and Beach Protection Board Announcements
11. Consensus of Short Report to Board of Commissioners
12. Public Comments
13. Adjournment



**TOWN OF HOLDEN BEACH
INLET AND BEACH PROTECTION BOARD
THURSDAY, NOVEMBER 29, 2018- 10:00 A.M.**

The Inlet and Beach Protection Board (IBPB) of the Town of Holden Beach, North Carolina met at 10:00 a.m. on Thursday, November 29, 2018 in the Town Hall Public Assembly.

CALL TO ORDER/ROLL CALL

Chair Vicki Myers called the meeting to order at 10:01 a.m. Present were: Chair Vicki Myers, Vice Chair Mike Pearson, Members Richard Rice, Ronda Dixon and Dean Thomas. Assistant Town Manager Christy Ferguson was also in attendance.

AGENDA APPROVAL

Motion by Member Dixon to approve the agenda; second by Member Pearson; approved by unanimous vote.

APPROVAL OF MINUTES

Motion by Member Dixon to approve the minutes of October 25, 2018; second by Member Thomas; approved by unanimous vote.

ANNUAL BEACH MONITORING REPORT

The Town's consultant engineer, Fran Way, presented information from the annual beach monitoring report. He said the annual monitoring looks at erosion and accretion and helps maintain FEMA eligibility requirements. He said the Central Reach Project was still equilibrating and it's doing its job. He stated the material that moved offshore during Matthew now came back onshore. The beach gained about 440,000 cubic yards of material that was out in deeper water. He said the standard east end lost material. Chair Myers asked in the section that was labeled Town East if there was a reason that section is so out of line with others. Mr. Way said that equilibration from nourishment projects had something to do with it. He said it takes several months for it to equilibrate and there was a little more material there. From the pier to Town West you have two directions of transport, longshore and cross shore. He also continued that waves from the southwest can affect it. Mr. Way said that the mean high water (MHW) line did recede but there was some accretion down drift. Mr. Way said the far west end has been troublesome the last few years when traditionally it has been stable. He stated the Town might consider a secondary and tertiary dune system to include scrub-shrubs and maritime forest. He mentioned maybe giving the scrub-shrub a headstart and planting 100 feet back on the second dune. Mr. Way said in comparing the 2000-2017 shoreline it was much better, 150-250 feet seaward of where it was in 2000 in the east and Central Reach. He stated that the west end is worse that it was 18 years ago but does have a big, fat [Inlet and Beach Protection Board 11/29/2018]

dune system. He said the west should see long term benefits the next few years with sand moving that way, future hurricanes could impact that. Chair Myers asked Mr. Way if he has any idea why it may be occurring because Oak Island is having erosion on their west end as well. Member Dixon says it seems to be where the tip turns at both. Chair Myers asked Mr. Way if he thinks it is inlet related. Commissioner Kwiatkowski said as a private citizen, contrary to the last couple of years, everything all summer is flowing west to east. She said she doesn't know if it's the sandbar on the east side of the inlet. She said it has been a really strange six to eight months. She asked if that might be inlet related. Mr. Way said the Shallotte Inlet dredging project around 2000 caused some problems but since that time they have only been pulling 6,000-8,000 cubic yards out so it was not as much to cause an issue. He said he will need to look at their most recent monitoring from their report. Commissioner Kwiatkowski said that from 1260-1310 OBW seems to be getting cut out since Hurricane Matthew. She said if you go down to Holden Beach West there are only two walkways that you can see coming over what used to be dunes. They had to be taken back and people are waiting until after the northeaster season to do anything. She stated that something needs to get going on either a personal level or with the Town so they don't lose the second dune. Member Dixon asked Mr. Way if he thought the 2000 dredging of the Shallotte Inlet was a factor in Ocean Isle's erosion. Mr. Way said if you dig a big hole, you get the immediate benefit of placement on the end but in placing back in the system it's important to analyze and it's not ideal. He said it is better to go offshore. Mr. Way said digging in the inlet is good for navigation and an easy way to get sand. He stated the Corps did a study on how much material you can take out before destabilizing it. It was a 2008 report he believes that looked at sediment budgets. Chair Myers asked for questions from the audience. Mr. Way had one more slide to cover. There was discussion over the Lockwood Folly Inlet/ AIWW Crossing Project. Mr. Way said the bid for the project came in 25% over the government estimate. He said he thinks there is probably another 90,000 cubic yards in the bend widener. He stated it is a lean budget year according to the Corps, but the next fiscal year they are supposed to have more money. He then referenced the deepening and widening project that the county is proposing and said it would take expensive dredges to work past the Coast Guard COLREGS line. He also said they would have to stay away from shipwrecks. He said that in planning for the second Central Reach, long-term the Town would need to look for more sources offshore sometime in the next few years, now that we have seen how the material looked.

The floor was opened up for questions. Dolly Mitchell questioned Mr. Way if the history of dredging in 2000 or 2008 might have caused the west end of Holden Beach to erode and water to come up almost to the houses. She said that around 1976 on New Year's Day astrological events took out almost every walkway and another 1993 event had 80 mph winds. She stated that the previous Saturday the marsh and waterway were extremely high. She said they have noticed a significant difference in tides over the past year. Mr. Way said when you look at the predicted versus actual, predicted is about six inches below what happened. He said every now and then you can have systems in spring and winter. Vice Chair Pearson questioned doing a dredging project on the west end and putting sand on the island. He questioned whether that sand could have an effect on the west end. Mr. Way said the Intracoastal Waterway and Shallotte River dredging is probably not going to impact us because it is not beach compatible with a lot of that material coming from the river and it is far enough away to not have an impact on the ocean sand system. Chair Myers said that stuff keeps happening on the west end. She asked if the Town should be taking more transects on the west end similar to what is done on the east end. Mr. Way said they could consider that. He said the Corps is doing monitoring for their project and ATM is keeping an eye on that. He is not as concerned with the terminal groin as compared to borrow area concerns. Mr. Way said if they get too close it could be an issue. He said the monitoring they are going to do is rigorous,

around every three months, and the Town will evaluate the data. He said ATM can keep that in mind since there seems to be more erosion than in the past. Chair Myers referenced Figure 2-22 and questioned if the orientation of the Lockwood Folly Inlet is accurate as being shown to be oriented to the Southwest and if that is what the Town plans to maintain, other figures have it going straight out. Mr. Way said that all research says this alignment is best for the east end. He said the alignment has been like this for around four years and there is a correlation with more material being placed on the east end during this time. He stated that with 2012 and 2013 modeling, it did show a minor benefit of this orientation. Member Dixon said the Corps would follow deep water though. Mr. Way said yes and we will have to watch what the county plans to do especially with the Civil War wrecks. Chair Myers said we need to work to maintain this alignment. Mr. Way said the Corps does what it wants following deep water. He said when they have been doing something for decades they don't like to change things up. Member Dixon said we need to be careful what we ask for. She said the data shows minor benefit but since it has been oriented SW the benefits have been orders of magnitude better for the east end. Mr. Way said if you follow research, even Cleary's research, it is not as binary as if one way accretional and one way erosional. Chair Myers wondered if the resolution the Town did should be included in the annual monitoring report but then decided it would be part of next year's report. Chair Myers referenced the development line that Mr. Way mentions in the report. Mr. Way said there are ways to get out of that. He said as long as the Town is not running into major issues with permitting on a lot by lot basis, in the way the Town seems effective, then a static vegetation line is probably fine. He said the Town got a good read prior to Hurricane Matthew. Mr. Way said the Town should be commended on nourishments and vegetation efforts. Chair Myers said she is happy with the static vegetation line where it is. She continued that Mr. Way mentioned in several spots in the report where permits should be synced up. Mr. Way said he is checking with DCM currently before the end of December and trying to get expirations synced. Chair Myers questioned the section about the terminal groin and wants to make sure it gets documented correctly. She said it was turned down because it was possibly going to cause erosion down drift and current strategies were working. Mr. Way said that down drift is technical in the inlet. He mentioned regional sediment transport. He clarified down drift in regard to that particular project. He said he tried to keep that section dry and based on engineering because there was some opposition brought in and he wanted to keep it non-controversial. Chair Myers said she thinks something should be included because the report is a historical document. Member Dixon said even though ATM might not have agreed from an engineering standpoint, maybe Mr. Way could refer to some of the other justifications in that section. Mr. Way said he was trying to keep it technical and non-controversial but maybe he could reference some of the commissioners' meetings notes. Commissioner Kwiatkowski said as a private citizen scientific report writer she might try to keep it to risk-benefit and economic analysis to cover what the commissioners went through in a couple sentences. Member Thomas said he liked that verbiage. Chair Myers said under threat of appeal was in there and she was not sure there ever was a threat of appeal.

DISCUSSION AND PLAN FOR COMPREHENSIVE LONG-TERM PLAN

Assistant Town Manager Ferguson stated she thought the board should begin by looking at mission, vision, and goals. She said she and Town Manager Hewett met with Member Thomas the day prior and those items came up. Chair Myers said she has some samples that the board can work with. As she sees the board working on this she sees two inlet hazard areas and three general beach areas:

- Inlet Hazard to 240 OBW (Eastern Reach)
- 240 OBW to 780 OBW (Central Reach)

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•781 OBW to Inlet Hazard area (Western Reach)

These need to include discussions on how to manage as the needs are different for the different sections. Mr. Way said that the three sections East, West, and Central Reach as an engineered beach will make it easier overview wise for planning. He said the last three miles on the west end are unmanaged, but the west end might obviously need more management with the conditions that are occurring there. Commissioner Butler said he is speaking as a citizen and likes the three tiers and looking at it that way. He asked when the red light is going to come on with the east end so that we don't get back to where we were. He said he would almost like to pick a date to prevent that from occurring using the data we have available. Mr. Way said the county is trying to put material on the east end a year from now. Commissioner Butler said if we aren't the ones driving then we need to drive that. He said we need to be designers and owners. Chair Myers continued that in regard to the inlets and three beach areas there needs to be a historical perspective. She is working on how much the Town paid for the sand and how it was paid for. She said she sees a short-term plan and long-term plan and exploring the funding it would take to put all that together. She said the group could put together a draft plan with options and pros and cons. Member Thomas referenced the samples Chair Myers mentioned. Assistant Town Manager Ferguson said the samples should be sent from Chair Myers to her and she would get them to the board for review. Member Dixon said she is concerned about how the board will physically work on this plan. She feels like their hands are tied on trying to do a group activity. She wondered about workshops or special meetings. Chair Myers said her thought was that each board member would take pieces to work on and bring it back to the group to discuss at the regular meeting. She said a part of this is foundational and coming up to speed. Member Thomas said he met with Town Manager Hewett and Assistant Town Manager Ferguson and tried to make a hurricane list spreadsheet back to 2000. He said there were some in the past 20 years and some further back. He said everything prior to 2008 would be sketchy because that is how far Town Manager Hewett could take him back. He continued the conversation included facets of the long-term plan and things that might be a quicker fix beyond Central Reach 2. He said the Town tries to dredge every two years. He stated it goes back to what should the long-term, short-term focus on and what should the facets be. Assistant Town Manager Ferguson asked Chair Myers if she is asking the IBPB to look at samples and come with ideas to the meeting to work from there. Member Thomas said he also thought that Town Manager Hewett and Assistant Town Manager Ferguson, as well as Mr. Way, could review the samples as well and give feedback. Member Dixon said the short and long-term plan should give examples of new things they could be doing.

Dolly Mitchell said in response to Member Thomas talking about different storms, most of the damage occurred in 1989 and that was before Town Manager Hewett. She said she knows what the board is trying to do in making it exact but with Hurricane Matthew there was three feet of water under her house. With Florence there was no water under her house and last Saturday there was two inches of water. She said at some point climate change and sea level rise needs to be looked at. Member Thomas said he would love to get that kind of feedback for the spreadsheet; the more people that can add the better.

STATUS UPDATE ON BEACH AND INLETS

Assistant Town Manager Ferguson gave an update by saying the latest Hurricane Florence numbers in regard to cost estimates were \$7,797,917. She said the Michael damages were \$5,623,046. She said the Town was engaging with FEMA face-to-face weekly. She said the State of NC Emergency Management/FEMA sent down a beach technical person to go with Town Manager Hewett today for Michael to decide if Brunswick

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County will meet the threshold for declaration. She said the Florence beach technical person is scheduled to be here next week. She said at the NC Beach, Inlet, and Waterway Association the Corps said the AIWW contract was going to be awarded to Southwinds, but they had to work some things out because it came in over budget. She continued that she inquired the day before if the contract was awarded yet, if there was any further information about future meetings, and what the anticipated arrival date of the Merritt might be, but she has not heard anything back yet.

Assistant Town Manager Ferguson stated that Town Manager Hewett just received an email from the county regarding the Lockwood Folly Inlet and the proposed deepening and widening project. She read the email aloud (attached). She told the board that they could consider a special meeting before the December BOC meeting to discuss the issue in order to fulfill Item C (Evaluate the feasibility and cost and benefits of proposed dredging projects) in the ordinance that established them. She then said she thought since the Town's engineer, Fran Way, was here he might be able to answer questions and express concerns. Member Thomas asked how much sand we usually get from dredging there. Mr. Way stated that in the past, in that area, we got around 30,000-50,000 cubic yards because they typically do it with the Murden. There was discussion about how much sand usually comes from the AIWW crossing. Mr. Way stated if the project is done the sand has to go on the east end. He said he would really be worried about down drift impacts especially if Oak Island is getting what he feels like is Holden Beach's sand in the AIWW crossing project. He stated Oak Island has talked about sharing sand. He said Holden Beach had a nice system set up and Holden Beach needs this sand. In making this deeper and getting this permitted, they are trying to look back at 1970's documents saying this inlet was always authorized to be 12 feet deep even though it has been dredged to 8 feet deep. They are going to want a minor permit modification, saying this is no big deal. In reality, it could really get drawn out with the shipwrecks and essential fish habitat. Some previous modeling from 2012 and 2013 showed that it could change the salinity levels in the river with more water getting into the river. He said you couldn't get near the shipwrecks. Mr. Way continued if it is not going on the east end, then it is not good for Holden Beach. He stated there is a little bit of tradeoff like he spoke of before where you are taking sand out of one part of the system but just moving it around. Member Thomas asked about the modeling that Mr. Way was doing right now. Mr. Way pointed out it was looking at the back area with the AIWW crossing sand and they are not really looking at the area the county is talking about for this project. He said if it is only 250,000 cy of sand that would be \$4 per cubic yard based on the prices quoted, which is good if the state is helping pay for it. He said with the state ponying up 2/3 of the cost it is worth it. He stated if the state was not paying any, he would say it was not economically worth it based on the cost per yard. Member Thomas said we have to assume that Oak Island is going to say they want it as well. He said Mr. Way's data would help in some way. Member Dixon said we have to be able to say that Oak Island got the AIWW, we should get this one. She said it sounds like we have to jump on this right away. She continued that worst case scenario, Oak Island gets the sand and we can't let that happen. Member Thomas asked what happens if it comes to an agreement that Oak Island gets half, we get half. Mr. Way said in reality it might not be that much more but dredging cost are widely variable. He commented on the Town's Central Reach Project and the fact that it had to be rebid. Member Dixon said she was hearing that there may be a problem with the permitting process. Mr. Way said that he has his doubts that they could get it, even in January if the County got started with permitting. He said the bidding process would be 3-4 months, there are archeological concerns, then you are to hurricane season. He agreed it was authorized to 12 feet but he thinks it is going to be tough to have permitting to happen a year from now. Member Thomas asked if it would be a commissioner's special meeting. Member Dixon said no, it would be the IBPB. Assistant Town Manager Ferguson said the only information we have would be what Mr. Way said and the email from the County with the grant application. She continued the urgency is the County BOC wants to hear back from the Town in early January. Mr. Way reviewed what his current modeling project is covering at this point and that it is not covering the deepening and widening. Member Dixon said what she is hearing Mr. Way say is that if the project happens the sand has to come to Holden Beach, if we decide the risks are too high or the budget is not in place, that doesn't mean that Oak Island will not grab it up and then Holden is in trouble. She thinks there is

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only one choice in her mind. She said what she heard Mr. Way say was there may be some risks to Holden if the deepening and widening occurs but there are some high risks if it goes to Oak Island.

Motion by Member Dixon to hold a special meeting; second by Vice Chair Pearson, approved by unanimous vote. Friday, December 7th anytime, December 10th in the afternoon, and December 11th in the morning were mentioned as possible dates for a special meeting. Assistant Town Manager Ferguson was going to get back up with the group with a date.

Mr. Way said that Holden is the down drift beach and as such this project would have tremendous impacts. He stated the down drift beach should have priority, just as Ocean Isle has priority with the Shallotte Inlet. Chair Myers asked if it would create what Mr. Way refers to as a sediment trap. Mr. Way mentioned that it would be a smaller version. Chair Myers said it is not only the sand that would be taken out, but it's the sand that's migrating in. Mr. Way said there might be a minor benefit with additional dredging but sooner or later the deficit of sand would hit the shoreline.

COMMUNITY ENGAGEMENT NEWSLETTER

Chair Myers said part of the IBPB's charge is to serve as a link between the community and the Town and she is proposing creating a mini-newsletter, possibly quarterly to be emailed from the Town. She said that Land Use Plan survey shows that storm mitigation and the beach strand are important issues. She said this one could include a Florence and Michael summary and statement that the beach held up well. She said it could show this is what the beach is designed to do so people are better educated about protecting the dunes, front row, and infrastructure. She referenced the damage that occurred with Hurricane Floyd. Dolly Mitchell said that in Hurricane Hugo the dunes were under the houses and if that occurred now there would be sand boxes in people's swimming pools on the oceanfront. Chair Myers continued that in the spring it might focus on plants, fertilization, and vegetation with instructions not to walk on the dunes. Assistant Town Manager Ferguson said that staff would be in charge of compiling the information and it would be a staff coordinated effort.

Motion by Member Thomas to support; second by Vice Chair Pearson. Member Dixon asked if the IBPB could suggest topics to communicate to Assistant Town Manager Ferguson and Town Manager Hewett. Member Thomas said it should be kept short and sweet. Chair Myers said the Town uses Constant Contact and that has a newsletter feature. *The motion passed unanimously.*

INLET AND BEACH BOARD ANNOUNCEMENTS

Chair Myers reported that she, Member Thomas, Member Dixon, and Vice Chair Pearson attended the NC Beach, Inlet, and Waterway Conference in Carolina Beach. She said that Member Thomas and Vice Chair Pearson attended the Atlantic Intracoastal Waterway Association (AIWA) meeting in Charleston and Member Thomas attended the Coastal Resource Commission meeting. Vice Chair Pearson spoke about his attending the NC Beach, Inlet, and Waterway Association Conference and the AIWA Annual Meeting. He said that easements keep coming up as well as sea level rise and resilience and it makes you think about the future. He thanked the Town for letting him attend. Member Thomas discussed attendance at both meetings as well. He said at the AIWA meeting the first day was higher level Corps' information, but everything we are working on and worried about here they are working on and worrying about in other states. He said in Jekyll Island they are pumping their dredge material in a thin layer right on the marsh and monitoring. He discussed meeting with a UNCW professor that presented at the NC Beach, Inlet, and Waterway Conference and how they might be able to work with ATM on some issues at Holden Beach. He said the meetings were good learning experiences.

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Vice Chair Pearson said he was fascinated by how many layers the Corps has. Assistant Town Manager Ferguson announced the date for the Long-Term MOA meeting in New Bern to be Wednesday, December 19th.

CONSENSUS OF SHORT REPORT TO THE BOARD OF COMMISSIONERS

Chair Myers read a memo she prepared for the Board to vote on. Points to include for the BOC report were as follows:

- **Annual Beach Monitoring Report:** Fran Way gave an in-depth presentation and answered questions.
- **Comprehensive Long-Term Plan:** A working framework for the long-term plan was discussed and agreed upon.
- **Status of the Beach and Inlets:** Staff provided an overview of conditions and issues relative to the beach strand and inlets in the aftermath of Hurricanes Florence and Michael. The Board was updated on the LFI situation and voted to schedule a special meeting.
- **Community Engagement Newsletter:** To meet the goal of serving as a link to the community as specified in the establishing ordinance, a regular (possibly quarterly) community newsletter will be created and distributed.
- **Meetings:** Members of the Board attended the NC Beach, Inlet, and Waterway Association Annual Meeting, the AIWA Meeting and the CRC meeting.

Member Dixon suggested adding that long-term planning samples will be distributed to members and they will be thinking about areas they are interested in. Member Thomas suggested mentioning that the reason for the special meeting was that the County was looking for feedback in an expedited manner.

Motion to adopt short report by Member Dixon, second by Vice Chair Pearson; approved by unanimous vote.

PUBLIC COMMENT

Commissioner Kwiatkowski suggested when the IBPB goes to meetings if they have presentations they find valuable for citizens, they could be included as a link on the website and people can look at the information. She continued that if they are of particular interest they might need to bring the message to a BOC meeting. Member Thomas agreed to submit material for AIWA and Member Dixon will concentrate on the NC Beach, Inlet, and Waterway Association.

Dolly Mitchell said with the beach at some point you have to deal with trash on the beach. She mentioned some communities undertaking community-wide initiatives like going straw-less.

ADJOURNMENT

Motion by Vice Chair Pearson to adjourn at 11:59 a.m., second by Member Dixon; approved by unanimous vote.

The IBPB will be reviewing the following sample long-term plans for their meeting. The links to the plans are as follows:

Town of Holden Beach's 2009 Beach Management Planning and Borrow Area Investigation

<http://hbtownhall.com/files/119591350.pdf>

North Topsail Beach's Plan: Here is their overview: [ntbnc | Shoreline Protection](#) and here is the actual report: [e4899e_2cdddc32dfbb472d912dc3edf83839f8.pdf](#)

Carteret County's Plan: . [Beach Preservation Plan | Carteret County, NC - Official Website](#)

Holden Beach Strand and Inlet News

Beach

This storm season proved to be active for the Town of Holden Beach. We were visited by both Hurricane Florence and Michael, as well as additional recent astrological tide events that produced flooding. The Town lost approximately 257,707 cubic yards of sand in Hurricane Florence in September, with 201,564 cubic yard occurring in the engineered beach area. Post Michael Storm analysis shows that we lost approximately 136,087 along the shoreline with 90,927 occurring in the engineered beach area. Although the beach took a hit with estimated damages for the beach strand currently totaling \$7,797,917 for Florence and \$5,623,046 for Michael, the Central Reach project proved invaluable as a storm damage reduction project. It was instrumental in the protection of the dunes system and homes along the beachfront. We are working with FEMA on a weekly basis to finalize damage reports in order to qualify for federal and state funding of repairs to the beach strand.

Inlet

The Town will not be the beneficiary of the Lockwood Folly Inlet/Atlantic Intracoastal Waterway Crossing Project this year as has been customary. The Army Corps of Engineers decided to pursue the placement of sand on Oak Island. The Town will continue to engage on areas of inlet dredging and look for opportunities to capitalize on least cost method of disposal as a result of navigation projects in order to place sand on the East end. Brunswick County is currently seeking the Town's input regarding interest in a deepening and widening project for the Lockwood Folly Inlet that would place approximately 250,000 cubic yards of sand on the East end in the Winter of 2019, if dredge plant is readily available to make costs feasible. The Inlet and Beach Protection Board evaluated the project and made recommendations to the Board of Commissioners at a special meeting held on December 7, 2018. The Commissioners will review the Inlet and Beach Board's recommendation at their December 18, 2018 regular meeting.