

Ad Hoc Beach Nourishment Committee

Final Report

September 2021

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Introduction

The Ad Hoc Committee on Beach Nourishment consists of the following members:

Rick Barry (Chair)
Christy Dooley (Secretary)
Terry Dunn
Mary Ann Fox
Glenn Frazier
Randy Johnson
Sue Stewart

Each member spent significant time networking with friends, neighbors, and others to bring a broad spectrum of perspectives to committee discussions. I thank them for their

passion, expertise, and contribution of time to this effort. While our time together was brief and sometimes intense, I believe the output will be beneficial to the Town of Oak Island and its residents.

I also thank those who provided inputs, answered questions, and provided context to our conversations. Special thanks go to David Kelly, Dave Hatten, Lisa Stites, Steve Edwards, and Mike Emory for their contributions. Portions of this report contain inputs from this group. Hopefully we captured conversations accurately and appropriately. If we mis-stated or misunderstood, our apologies.

Rick Barry
Chairperson

The Charges

The Ad Hoc Committee on Beach Nourishment (made up of seven citizens appointed by Town Council) was given the following responsibilities:

1. The committee will conduct an analysis of the Carter Group funding proposals. In addition, the committee will review successful strategies deployed by neighboring coastal communities.
2. The Ad Hoc Committee will seek to identify potential external funding sources and/or potential partnerships to offset the cost of the Town's beach renourishment plan (Master Plan).
3. Additions/clarifications by Councilman Bach, July 28th:

"Given the charge and time constraints, Council's expectation is that the committee's final report will provide a cogent, insightful look at the key elements in that charge. There is no expectation for an exhaustive, detailed data rich report. The committee may also offer recommendations, should it choose to do so. In this context, the committee has broad latitude. Therefore, if the committee decides to explore the option of a non-engineered beach (i.e., less than FEMA standards and less than \$40 million), it may do so. It is also the case that the committee may discuss alternate formulas for cost sharing, provided these are legal."

Consultant Conversations

During its deliberations, the Committee held meetings with Moffatt & Nichol, the firm contracted by the Town of Oak Island to provide the Town with their best proposal to address beach erosion on Oak Island.

In discussions with Oak Island Town Manager, David Kelly, he noted that Moffatt & Nichol have former employees of FEMA (Federal Emergency Management Agency) and the Army Corps of Engineers on their staff and are considered the premier beach engineering firm.

During the same meeting, the Committee met with the Carter Group (DEC Associates, Inc.). Likewise, in discussions with Oak Island Town Manager, David Kelly, he noted that the Carter Group is well positioned with contacts in the North Carolina legislature to advise Council on financial opportunities available. Under Section (4) of the March 2020 Financial Advisory Agreement between the Carter Group and the Town of Oak Island on Beach Renourishment/Shoreline Protection, the Carter Group is to "Advise and Assist in the selection of financing models."

As such, the Committee has no reason to believe that either contractor, Moffatt & Nichol or the Carter Group, is not fully capable of advising the Town on the current state of Oak Island's beaches, the best solution for the Town's beaches, or the financial options available.

Beach Best Practices

Furthermore, the Committee looked at surrounding beach towns for suggestions - successful strategies, as you will. Wrightsville Beach, Carolina Beach, Topsail Beach, Surf City and North Topsail Beach, Holden Beach, and Ocean Isle Beach in North Carolina were all looked at. In a nutshell, what we found was that beach towns with well-established beach renourishment projects started those projects many years ago and the external options for sand/funding utilized by those towns are no longer available.

The Committee even reviewed a beach renourishment project initiated by Sandbridge, VA in 2003 that in many ways mimics the long-term project we are considering today. Sandbridge, a part of Virginia Beach, is a highly applicable model that provides scope, scale, and best practices on how to manage a long-term beach project similar to the Oak Island Master Plan. Details can be found [here](#).

As a result of these reviews, the Committee decided that we need not speculate as to why the Town did not continue with the beach renourishment project completed in 2001 or why a renourishment plan was not adopted when presented in 2017. Our focus should be on the here and now

Funding Source Evaluation

Further to the Committee's tasking, we began looking for alternative funding sources (separate from assessments and/or general tax revenue as proposed by the Carter Group) which might reduce the burden on Oak Island residents.

- Prepared meals tax. This is a 1% tax that is imposed on meals that are prepared in restaurants. The North Carolina legislature must grant approval to any local jurisdiction which wishes to impose such a tax. The Town of Oak Island has pursued such a tax and continues to do so, but the bill authorizing Oak Island to impose such a tax has never passed out of Committee in the NC House.

- Accommodations tax and/or occupancy tax. This initially caused the Committee some confusion as all short-term rentals in Oak Island pay a 6% tax.

- Accommodations Tax. Under a local Bill passed in the NC General Assembly in 2001, Oak Island has an Accommodations Tax (sometimes called a Lodging Tax, to add to the confusion) of 5%. Under the statute, 3% goes to Tourism and 2% to Sand - 5% is the maximum allowed.

*Oak Island officials believe it is unlikely that the NC General Assembly would approve an increase in the accommodations tax or that the existing statute would be approved under the current political/economic climate.

- Occupancy Tax. NC statute allows counties to impose an occupancy tax of up to 2.75%. Brunswick County imposes 1% which accounts for the total of 6% paid by all short-term rentals in Oak Island. The Committee notes that Oak Island has asked for assistance with its beach renourishment from the county and has been told no. Therefore, it is unlikely that Brunswick County would be willing to request a raise in the Occupancy Tax from the NC legislature.

In short, although the Town of Oak Island continues to request assistance from Brunswick County and the North Carolina General Assembly, no assistance seems forthcoming at this time.

Considering the property owners that rent, we had a brief discussion about feedback that any increase in their taxes, assessments, or other costs could price them out of the rental market in southeastern NC. Appendix A is a very brief collection of data that implies that Oak Island rentals could absorb increases and still be competitive.

- Grants. The Town of Oak Island has an active program to pursue grants that might be available to it. Recent grants related to COVID-19, such as the "Cares Act" or "America Rescue Act" are actively pursued. Many of these grants have restrictions or time constraints and do not generate the continued revenue stream necessary for a project of this magnitude or duration. But, any grants obtained in the future, while not to be relied upon, could be used to mitigate the burden on the taxpayer.

(NOTE: The \$20 million grant from the NC General Assembly for our beach renourishment project which was announced at the August 10th Town Council meeting is not a certainty. And, there may be time constraints which require the funds be expended before this project is underway.)

- Paid Parking. Following meetings with Town officials, the Committee noted that the simplest means of implementing paid parking would be an Island-wide system. Free right-of-way parking would be eliminated. Anyone parking in a right-of-way or in Town-designated parking spaces would be required to pay for the privilege through an app on their smart-phone. Of course, paid parking could be restricted to just the summer months (say May-Oct) or just to certain areas (i.e., south of Oak Island Drive), but this would be up to Council. Based on a survey of surrounding beaches which impose paid parking, Oak Island could achieve yearly revenues of approx. \$1 million through paid parking.

Beach Management

The Committee even discussed ways to protect the beach once this project is initiated:

On August 10th, several Committee members attended the Dune Workshop. Principal speaker, Spencer Rogers, the coastal construction and erosion specialist for North Carolina Sea Grant in Wilmington since 1978, explained how the beach works.

Dune vegetation. The primary goal of dune vegetation is to trap blowing sand so that it can enhance the protection afforded by the dunes. In the past, the Town has offered Sea Oats to oceanfront homeowners and has utilized volunteers to plant Sea Oats on dunes created through various dune renourishment projects.

Unfortunately, Hurricane Isaias destroyed the Town's greenhouses for growing Sea Oats. Although the Town intends to rebuild the greenhouses and once again begin to grow and provide Sea Oats to homeowners, considerable paperwork is required to receive FEMA funding and, therefore, it is unknown when they will be rebuilt and Sea Oats available.

Beach access management. During the Dune Workshop, Spencer Rogers indicated that public beach access needs to be managed to avoid damaging the dunes. Following Hurricane Floyd in 1999 and the sand project of 2001, Oak Island moved away from wooden walkways to a simpler and cheaper option of cutting access points to the beach from Beach Drive.

Based on discussions with Town Manager, David Kelly, there are 67 beach access points at the street ends. It is unknown how many authorized accesses there are in addition to those. The requirement for a certain number of access points between street ends is outlined in a local ordinance passed by Town Council in 2001. The Town Manager and his staff are currently looking into different options to manage beach access including the possibility of reestablishing wooden walkovers at heavily trafficked areas.

Results

As a result of our information gathering and discussions among Committee members, we took a vote and the majority concluded that the best course of action going forward is as follows:

Engineered Beach

The majority of Committee members support the creation of a FEMA-minimum Engineered Beach as proposed by Moffatt & Nichol. Those members did not believe it was wise to revisit the solution and ask Moffatt & Nichol to give us something less - something that is not their best estimate of what is needed. Moffatt & Nichol is a premier engineering firm with 70 years of international service. More information can be found at moffattnichol.com.

One committee member provided a dissenting view regarding the engineered beach solution that can be found in Appendix B.

Carter Group Analysis

Committee members unanimously support the Carter Group's analysis, although Committee members were not in favor of the wide disparity in assessments between Districts. Committee members were more supportive of a combination of Assessments and Town-wide Property taxes.

* Discussions with Town Manager, David Kelly revealed that Oak Island has approximately 12,500 lots with a Tax Base of \$3,390,144,155. A \$10 million target (over 4 years for a total of \$40 million) would require an assessment of \$800 per lot or an increased tax rate of \$0.29 per \$100 of assessed value.

Municipal Service Districts (Benefit Zones)

The Committee noted, as the Carter Group has pointed out, that Municipal Service Districts arise from specific legislation passed by the NC General Assembly in 2001 at the Town's request and are unique to Oak Island. This legislation identifies four (4) districts, but modifications can be made to the number and composition of the districts as needed. Furthermore, the legislature restricts these assessments to (1) the total number of lots or (2) the assessed value of property (without improvements).

Special Obligation Bonds, supported by Oak Island's Special Assessment Statute, would be used to initiate this project in the least amount of time. General Obligation Bonds could be used for this project, but would require voter approval at the next general election (not 2021 as there is insufficient time to place the issue on the ballot.)

There are a couple of applications of MSDs. First, they are necessary to secure funding via bonds. For this use, they do not necessarily have to be used to tax or assess, and

one zone for the entire island would work. The second reason for MSDs is to differentiate zones to determine specific benefits (the town has called the zones Benefit Zones in their communications) and therefore different levels of tax or assessment.

By a slim majority, Committee members voted in favor of the use of Municipal Service Districts to fund this project.

[Paid Parking](#)

The majority of Committee members support paid parking as a means to supplement assessments/taxes and to ensure that this project does not fall completely on the shoulders of Oak Island residents. The Committee decided that Council should decide on the duration (i.e., summer months or year-round) and areas (i.e., beach strand or island wide) but noted that any limits would result in less revenue. Committee members were in favor of residents being allowed to purchase year-round parking passes.

[Beach Program Manager](#)

The majority of Committee members felt that it was essential for a project of this scope (i.e., expense) and duration (i.e., indefinitely) that a dedicated full-time, experienced Beach Program Manager be hired to oversee the project and to be responsible for the following:

- Coordinate contractors
- Pursue alternative funding sources
- Expand relationships with local towns (leverage beach coalitions)
- Support beach protection practices
- Leverage surrounding beach best practices on sand nourishment
- Manage the campaign to keep stakeholders informed
- Communicate proactively to Oak Island taxpayers.

[Final Thoughts](#)

Committee members want Council and Town residents to understand that the current state of our beaches requires that we take action now. In addition to possible further damage to our beach, Moffatt & Nichol estimate an initial cost increase of \$9 million should the project not start by 2023. Before this can happen, sufficient additional work and necessary permits will be required. So, time is of the essence.

Likewise, this sand project is not a one shot deal. It is not \$40 million for an Engineered Beach and we walk away satisfied that we have solved the problem. Although FEMA and the NC legislature are currently paying for sand lost to a named storm (i.e., Tropical Storm or Hurricane), sand lost to routine erosion will need to be replenished. Hence, every 5-7 years, Oak Island beaches will require routine maintenance at an estimated cost of \$32 million. The proposals outlined by the Carter Group and supported by the Committee include continued funding for upkeep.

Appendix A – Sample Rental Information

We heard that cost increases to those renting properties, if passed along to renters, would price them out of the local market. The following is a quick sample of data that contradicts that perspective. While not comprehensive, it is insightful.

Sample was taken from VRBO.com in mid-August 2021. Search parameters were a house, with 3+ bedrooms, and a four star or better rating. Sample size was 10 rentals from each location. Here is the summary:

| Community | Daily Rate | % Difference |
|--------------------|-------------------|---------------------|
| Oak Island | \$ 203.40 | 0.0% |
| Holden Beach | \$ 233.10 | 14.6% |
| Ocean Isle Beach | \$ 319.40 | 57.0% |
| Sunset Beach | \$ 210.30 | 3.4% |
| Wrightsville Beach | \$ 443.60 | 118.1% |
| Surf City | \$ 279.70 | 37.5% |
| Topsail Beach | \$ 259.00 | 27.3% |

Appendix B – Engineered Beach Dissent

The following content is the view of one committee member. A majority of the committee objected to including this content due to length, factual errors, and accusations. It is being included in this report to present a dissenting perspective.

Mary Ann Fox, a Minority party, provides the following issues with respect to creating an “Engineered” Beach.

The Ad Hoc committee had the ability to explore other options related to a non-engineered beach, but the members chose to only move forward on finding funding for an “engineered” beach. The following arguments reveal my concerns.

Research & Studies

First and foremost, much more research is needed before jumping into assessing the homeowner immediately for a project of this magnitude. If you look at other beach nourishment projects, there are years of preparation, studies are created, updates occur and all are fluid and continuous in nature. Details involving the beach nourishment projects show that many Federal departments communicate with the Town Council/Commissioners on the project as it's being worked on. More than just the engineers are involved in meetings.

Town Council/Commissioners performing beach nourishment ask specific questions to the many different Federal departments that are involved in the project. With respect to Oak Island, many questions have to be asked. For example, has the Town Council, other than maybe the Town Manager, reviewed any existing studies that were shelved? Have any studies been updated? Have any new studies been created?

I went to the Town looking for the Army Corps of Engineers studies and was told that Moffitt & Nichol have them and that the Town will receive them at some point. Shouldn't the Town Council be reviewing them now? Oak Island Town Council should not just rely on Moffitt & Nichol as their sole source of

information. They should be gathering information from other sources for a project of this size and cost. Town council should also be performing their own due diligence on this project once all the materials have been gathered. Are there studies to prove why 9 ½ miles of an “engineered” beach is immediately necessary versus nourishing only certain eroding areas at this immediate point in time? Nothing of this nature was provided to this Committee, nor have I seen any such study or data.

A Comprehensive Plan

A comprehensive written master plan has not fully been outlined by Moffitt & Nichol; therefore, the full capital outlay has not been considered. Currently, the Moffitt & Nichol plan is a presentation to Oak Island to move sand for \$40 million. It is understood that an estimated additional \$32 million will be required every 6 years thereafter for maintenance. Without a doubt, Oak Island will have to obtain additional funding as well. This would also fall on the shoulders of the homeowners. All this money to move sand? Is mobilization and demobilization included in the Moffitt & Nichol?

Then, what are next steps and costs of this plan after moving sand? The Town then has the investment to preserve the created dune, i.e., vegetation, fertilization, and incorporate policies and practices for its future protection. What are these costs? The Town should be thinking.... IF THIS... THEN WHAT.... I have not seen where anyone is trying to see the entire picture of the entire project. Oak Island Town Council needs to think through the issues and the overall scope of the entire project before committing to any part of a project. There should be true comprehensive plans made available to Oak Island Town Council. Currently, there is no long-range plan for preservation of the beach.

Finding a Viable Materials

Obtaining materials for the Moffitt & Nichol project has not been finalized yet. Final costs have not been set yet. How can one know the cost of the project if the materials are still unavailable? Moffitt & Nichol indicated that they are still talking estimates and indicated that they are trying to obtain sand from Frying Pan Shoals. To date, no beach has ever been able to use sand from Frying Pan Shoals. I understand that Moffitt & Nichol are attempting a different way to remove the sand from Frying Pan Shoals, but there is still no final affirmative word. Frying Pan Shoals is 25 miles from Oak Island. This would utilize the most expensive sand around. Moffitt & Nichol also indicated in their presentation that there may not be sand to take in the future. Does the Town Council and the Ad Hoc Committee think that using very expensive sand and the idea that sand may not be available in the future are effective cost strategies?

Further, The sand they harvested from Jay Bird Shoals is not the same sand that we have here on Oak island. This sand is much more coarse than the sand our island has. One can tell the difference easily. There are many large rocks and rocky sand and mini shells. With Biden revoking sand mining, purchasing sand and harvesting it will be more difficult and even be more expensive, if it is available at all. Since Moffitt & Nichol is working with Bureau of Ocean and Energy Management (BOEM) to use Federal sand for Carteret County, the Town Council should be asking why they are not doing this for Oak Island.

Other types of Beach Preservation Nourishment

There are many beaches working on beach preservation projects as a way of beach nourishment. Moffitt & Nichol has not introduced any preservation type of beach renourishment plans to Oak island. They should have presented other options to the Town. An “engineered” beach cannot be the only option for Oak Island to review. Even if a plan is less viable, it should be presented as an option and let the Town Council decide what the Town can afford to do. No one would purchase a million-dollar mansion when they can only afford a \$250,000 home. This would lead one to assume that no preservation projects were considered for Oak Island. All options should be considered prior to making rash decisions on an “engineered” beach. Many beaches along the coast are doing renourishment projects by creating natural rolling dunes. Recent webinars and science also show that rolling natural dunes are just as effective as

piled up sand. Note: Caswell and Holden beach both have rolling natural dunes, and their dunes held up during the storms.

Erosion

I have taken the liberty of talking with the many property owners on Oak Island, and consideration of a study of erosion patterns occurring along the beach should be generated. We need to identify which areas are more resilient, where most erosion is occurring, and shape the eroding area according to the more resilient areas. This should be a basis of discussion before considering the “engineered” beach.

No Guarantee

Having an “engineered” beach, does not guarantee that the Federal/State Gov’t will pay 75% /25% if erosion occurs or sand is lost from a storm. All the (t)’s have to be crossed and all the (i)’s have to be dotted per the government specs, which constantly change. There is no guarantee of entire payment percentage. Moreover, if there are no storms, and normal erosion occurs, there is no payment reimbursement when the maintenance has to occur for this normal erosion. There are pending lawsuits against FEMA after FEMA denied the reimbursement money for beach maintenance after storms occurred. And... If there may not be sand available to take for maintenance in the future, there is NO Guarantee for a project of this size.

The Town could work toward an “engineered” beach if studies prove this is the best viable method once all research has been performed and presented. During this time, the town should continue to work with the Army Corps of Engineers and legislature for future funding. Other beaches have saved their “accommodation” sand revenue for their sand projects and worked to obtain Federal, State and non-profit money along with grants before starting their nourishment projects.

Moffitt & Nichol’s are in the business to sell

Moffitt & Nichol are engineers that sell projects for their company. They are trying to sell the “engineered” plan, but less than \$40 million can be used to preserve our beach. Oak Island town works with CAMA, but could also take on a more forceful role with respect to building on the oceanfront. The contractors and builders will have to learn to live with the changing laws that may hinder some of their profit margins as it pertains to ocean front building and filling in wetlands.

Conclusion

After talking with many property owners, I believe I can safely state for the property owners, that the Town and this Committee are looking narrowly at creating an “engineered” beach instead of looking forward at the big picture of the future impacts that this “engineered” beach will create on our island. It is irresponsible. I speak for many property owners that beach nourishment is needed, but not at the cost of an “engineered” beach at this point in time. Wasteful funding is not an option. Until all of these matters are addressed and other options are fully researched, the project should be placed on hold. The Town owes this to its residents and property owners. This is not a one size fits all kind of project. This must be diligently researched before a decision is made.