Final Oak Island
Beach Project Funding Plan

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PARC

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ACKNOWLEDGEMENTS

PARC would like to acknowledge and thank the Town of Oak Island, North Carolina, especially the town staff and elected officials and the citizens, who invested considerable time and energy to participate in the public workshops that were essential to developing this plan and our recommendations.

This project could not have been completed without the goodwill and tremendous assistance of the town staff, especially Lisa Stites, Jacob Vares, Town Senior Planner, and Steve Foster, and all the members of the Town's Beach & Inlet Committee. Town staff graciously provided maps and property information, financial, budget and tax data, and responded to many calls and e-mails, even in the midst of handling the other pressing duties for the town. Final, we appreciate the assistance of Becky Dosher and Kyle Thomas , who ensured every workshop was announced by post card, that the meeting venue was set up, and the workshops broadcasts were ready to go.

Over the course of the six public workshops, more than 200 people participated in the meetings and another 282 provided direct input into the process through the on-line public forum, www.oakislandbeachplan.com, emails, and telephone contact to PARC. The public shared their insight and understanding of the beach erosion problem, the history of beach project planning in the community, and their preferences and concerns regarding future financing strategies.

Addressing new revenue needs is difficult in any community no matter how important the project under consideration. Throughout the workshop process, the citizens of Oak Island demonstrated a remarkable community spirit, a willingness to take on difficult problems, and an understanding of the importance of maintaining the beach for the benefit of all.

It is been a privilege for PARC to serve the Town of Oak Island and we hope that our efforts will assist the town as it moves forward to implement future beach nourishment projects.

PARC would like to thank Oak Island for the opportunity to serve the community.

Peter A. Ravella Principal Investigator	Lillian Johnson, Community Liaison	Tyler Buckingham, Project Research

REPORT PURPOSE

The purpose of this report is to provide a framework for the Town of Oak Island and its citizens to evaluate potential approaches raise the funds necessary to restore and maintain its beach and to select and implement the funding approach that best meets local needs.

While the report includes a discussion of state, county, and local revenues, and explores potential funding strategies, capitol project funding is a complex undertaking with multiple factors and considerations. As such, this report is not intended to be a definitive statement of all the financial and legal considerations that the town must evaluate in moving forward.

Further, this report is not intended to provide legal advice as to the sufficiency or acceptability of any particular funding option or approach described herein. It is not intended to advise the town of the specific legal or regulatory steps that may be required to implement the funding approach ultimately selected by the community and the city council. PARC leaves to the town council the specific procedures such as votes, surveys, or referenda that the town should follow to implement any of the recommendations contained herein.

It is hoped that this report can contribute to an ongoing, constructive and positive dialogue within the community on approaches that may be appropriate for financing future beach nourishment projects and help facilitate implementation of a funding plan that supports the town's Comprehensive Shoreline Management Plan.

Planning ahead for beach projects is inherently a "crystal ball" exercise. One cannot be certain as to the condition of the shoreline in any future year, the specific cost of a future beach project, or the regulatory restrictions or requirements that may be imposed on the town as it moves forward. In spite of the inherent limitations involved in this exercise, it is clear that Oak Island will continue to face beach erosion and that, based on previous surveys of local citizens, there is wide support to undertake a program of beach nourishment at a level affordable to the community. It is hoped that this report will assist the community as it moves forward to restore its beach and protect this beautiful town.

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1.0 INTRODUCTION

The Town of Oak Island, North Carolina is a beachfront community located in Brunswick County. The community has a nine-mile south facing beach that fronts the Atlantic Ocean. Over the years, the town's shoreline has been buffeted by erosion and storms, resulting in an ever-diminishing beach available to the public. The shrinking shoreline also poses a risk to public infrastructure, homes and businesses in the community.

For several years, the town has worked to understand the erosion challenges it faces and to develop response strategies to restore and maintain the beach and dune system. The town retain Moffatt & Nichol, an outstanding coastal engineering firm, evaluate the shoreline conditions and develop preliminary options for consideration.

In anticipation of future projects, the town retained Peter A. Ravella Consulting, LLC in January 2016 to investigate strategies to fund future beach nourishment projects and programs. The purpose of this effort was to develop a beach project funding strategy to support the town's local beach maintenance program.

In accordance with the contract, PARC visited Oak Island in March 2016 to inspect the town's shoreline, meet with local elected officials, and interview members of the community interested in the beach projects and funding for future projects. More than a dozen in-person interviews were conducted during this initial outreach trip and more than 30 subsequent interviews were conducted by telephone, initiated by PARC or in response to calls and emails from community members. These informal interviews were of great assistance to PARC in understanding community's views regarding the beach projects and Beach Funding issues.

In March 2016, PARC initiated the workshop series and outreach efforts that would be conducted to formally solicit input from the public on beach restoration financing strategies for the town. Simultaneously, PARC launched a website, www.oakislandbeachplan.com, to engage the public, provide access to workshop presentations, distribute technical reports from Moffatt & Nichol, initiate a community discussion forum, and keep the public advised of the plan development schedule. PARC also set up a system for the public to view and

participate in the public workshops in real-time, live on the internet. The public workshop process and schedule is proved below and a list of attendees and participants is provided at the end of this report.

Workshops	Date & Time	No. Participants
Workshop 1A - Project Overview & Funding Principles	March 17, 6 - 8 PM	86
Workshop 1B - Project Overview & Funding Principles	March 19, 1 - 3 PM	
Workshop 2A - Initial Funding Options	April 21, 6 - 8 PM	90
Workshop 2B - Initial Funding Options	April 23, 1 - 3 PM	
Workshop 3A - Expanded Funding Options & Plan	May 19, 6 - 8 PM	99
Workshop 3B - Expanded Funding Options & Plan	May 21, 1 - 3 PM	
Final Report to Town Council	June 9, 2016	

Extensive efforts were made to notify the public of the workshops and to encourage participation. Postcards announcing the workshops were mailed to every property owner in Oak Island prior to the workshops. Workshops were announced and broadcast in real time as a webcast, allowing residents and property owners to view the proceedings from any place in the country. Finally, workshop presentations, recordings and documents were posted on-line at www.oakislandbeachplan.com to allow later viewing.

2.0 GOALS AND PRINCIPLES OF THE FUNDING PLAN

The Beach Project Funding Plan is intended to identify and recommend means and mechanisms to increase the revenue available in the town's Beach Fund sufficient to sustain the town's future beach program as developed and refined by Moffatt & Nichol.

The funding plan is not intended to address whether the town should proceed with its shoreline management program or any specific beach project, as this decision is outside the scope of services and is within the discretion of the town council . Likewise, this plan is not intended to evaluate or promote any specific engineering design or project plan. While certain attributes on the beach nourishment projects are necessarily summarized in this report, the complex considerations that go into an effective shoreline and beach

management strategies are left to the expertise of Moffatt & Nichol, the Oak Island community, and the town's elected leaders.

In developing the funding plan, PARC identified, discussed and refined several broad principles in discussion with the community. The principles of the funding plan are as follows:

1. Create a Strict Dedicated Beach Fund for
    a. Project Design & Permitting
    b. Beach Nourishment & Dune Creation
    c. Project Monitoring
    d. Project Construction & Maintenance
2. Use Occupancy Taxes First & Increase Beach Fund Share to 3%
3. Everyone Should Contribute Something
4. Beachfront and Near Beachfront Owners Should Pay More
5. Seek Affordability for Fixed Income Seniors and Limit Cost to $75/month on $500,000 property and $35/month on a $250,000 property
6. Explore Other Local Revenue Options

3.0 NEED FOR A BEACH PROGRAM

3.1 Current Conditions and Risk

The current condition of the shoreline in Oak Island is dire. The beach is eroding at up to 3 feet per year, a rate that has and will continue to jeopardized public and private property and the tourism economy of Oak Island. The pre-feasibility study of the shoreline conducted by Moffatt & Nichol shows what is already generally known: without action, the beach at Oak Island will continue to retreat causing additional loss of property, putting public and private assets at risk, and negatively impacting the local economy.

The ocean is the dominant feature of our planet and all beach shorelines are ultimately beholden to forces greater than those susceptible to human control. Still, the efforts of the town and other coastal communities have been successful in managing shoreline processes through planning and regular renourishment. The question is whether to adopt a plan that recognizes the long-term need for Oak Island to manage its shoreline and develop new revenue streams to take action..

While the town has not independently funded comprehensive beach nourishment projects in the past, it has historically benefited from the development of federally funded beach programs:

- Wilmington Harbor Sand Management Plan (2009)
- Sea Turtle Habitat Restoration Project (2001)
- Lockwoods Folly Inlet and the AIWW Crossings Maintenance Project,

West End, Pre-Project, 2011 West End, Post Project, 2011

The federal projects were implemented by the U.S. Army Corps of Engineers (USACE). The Lockwoods Folly Inlet projects are also federal, with occasional financial assistance from the county and state. As detailed by the Moffatt & Nichol study, these efforts though sporadic and overall insufficient to respond to long-term erosion trends have produced positive outcomes for Oak Island. Unfortunately, future programmatic beach nourishment projects as described in the Moffatt & Nichol Comprehensive Shoreline Management Plan (CSMP) are unlikely to attract USACE funding, placing the burden on local, regional and state governments. Given the current state of the shoreline and the current rate of erosion, the town should not rely on the uncertain possibility of future federally funded beach maintenance projects.

Still, past programs completed with assistance from USACE demonstrate the likelihood of success if the town implements a regular and well-planned beach nourishment program. Most recently, in 2015, the town conducted the Eastern Channel Maintenance Dredging to

restore navigation depths to the Eastern Channel. The project placed approximately 200,000 cubic yards of beach quality sand on the western end of Oak Island that helped to limit short-term shoreline recession and erosion created during the recent storm events. The photographs below, and post project analysis by Moffat & Nichol, demonstrate the extent to which this renourishment activity positively impacted the western end of the island.

Put simply, this small beach renourishment project saved private property and broadened the public beach, potentially saving the town millions of dollars in property losses, clean up costs, and negative economic impacts. If the town is successful is completing the design, permitting and funding of the CSMP, these benefits can be realized along the entire beachfront.

The Risk

The Town of Oak Island is subject to powerful storms that can generate cataclysmic flooding, property loss, and destruction. The mitigation of flood risk, the central goal of successful beach management, is achieved primarily by maintaining healthy dune and berms systems. At present time, the beach dune system is highly degraded therefore provides minimal storm and flood protection to this community. According to the Moffatt & Nichol study, the Oak Island shoreline is expected to continue to erode for the foreseeable future, further increasing storm and flood risks in the community. It is clear that the shoreline is in need of attention if a reasonable level of resiliency and storm/ flood risk reduction is to be provided.

The photographs below show the typical condition of the existing primary dunes along Oak Island, which offer little protection to the shoreline, structures, and public or private property. High tides, storms, hurricanes, and natural wind and wave erosion have narrowed the beach and dune field to an unsafe condition. The lack of dune protection creates substantial risk to upland areas of Oak Island. If the town were subjected to a powerful storm or hurricane in the near future, many, if not most of the oceanfront structures and

upland properties would be severely threatened with flooding, damage and even destruction.

This outcome is not an improbable. As of this writing, Tropical Storm Colin is making its way out of the North Carolina and Oak Island was one of several communities that experienced a glancing blow from this small storm. While the level of impact was minimal this time, T.S. Colin is only the latest in a long-line of tropical storm events that have and will continue to eat away the remaining beach and dune system in Oak Island.

From 1980 to present, 120 tropical and subtropical cyclones have made landfall in North Carolina causing over $10 billion in damage and 121 fatalities. Of all these storms, Hurricanes Fran (1996) and Floyd (1999) dealt the greatest destruction. Hurricane Floyd left a path of social, economic, and environmental destruction nearly 60 miles inland. It is therefore no surprise that beachfront properties are not exclusively at risk of flooding during severe storms. Powerful weather events generate storm surge that can overcome the narrow beaches and thin dune systems, ultimately flooding upland parcels not directly on the beach.

The damage of a major storm or flood event can plague a community for years after waters have receded. Damaged and lost property, cleanup, and loss of recreational spaces can have irreparable consequences to the economies of coastal communities, which are commonly reliant on beach-tourism. Such is the case in Oak Island, making it essential for the town to effectively manage the shoreline to reduce and mitigate risk.

Oak Island's shoreline is a dynamic feature that will continue to change. Past renourishment projects have to some extent successfully "stemmed the tide," mitigating flood risk by broadening the beach and enhancing the dune profile. However, these activities have been approached piece by piece without the benefit of long-term planning or funding. The impact of ocean winds, waves and tides on Oak Island and similar beachfront communities around the world is never-ending. Singular renourishment activities typically fail to effectively account for the perpetual nature of shoreline change. The proposed

10th PL. West (approx.)

26h PL. East (approx.)

Comprehensive Shoreline Management Plan (CSMP) will establish a long-term plan and strategy to address this challenge.

In evaluating whether to proceed with design, permitting and implementation of the pending CSMP, the town should consider that inaction is not free. Recent experience in other beach communities clearly demonstrates that allowing the shoreline to degrade without intervention can impose substantial costs on the community in the form of lost tax revenue, declining tourism, and hard costs for litigation and cleanup of dilapidated structures.

The photos below best illustrates to foreseeable consequences of inaction when communities are faced with development located adjacent to dynamic shorelines and beaches. Ideally, risky and eroding shorelines are left to nature with no upland development placed in harms way. However, once homes and infrastructure are constructed, often over decades when the risks of nearshore development were not fully understood, the option to “let nature take its course” becomes significantly more problematic.

In North Topsail Beach, the shoreline adjacent to the New River inlet has fluctuated for hundreds if not thousands of years. Until the 1990’s, few structures were constructed

adjacent to this unstable inlet. In the last two decades, new development had occurred but the inlet and the beach continued to move, eventually eroding back to the second row of homes and stranding four structures out on the public beach. At the time, the National Flood Insurance Program (NFIP), through the Upton Jones Program, provided funds to remove structures from harms way when shoreline retreated. The Upton Jones Amendment was passed in 1988 and created a new type of coverage to assist owners of properties which were threatened by erosion and in danger of collapse. It allowed owners of such properties to make claims on their NFIP flood insurance policies to cover the cost to relocate or dismantle the threatened building. Theoretically, this saved the NFIP money by avoiding larger claims after the buildings are destroyed. The Upton Jones program was rescinded by the 1994 NFIP Reform Act. In the absence of Upton Jones, North Topsail Beach was forced into expensive litigation to remove derelict homes located on-beach. The litigation, demolition and removal of four beach houses reportedly cost the community's taxpayers $2.6 million and the beach was closed to recreational use for months due to the rebar and concrete left in the beach.

North Topsail Beach Shoreline Conditions & Home Demolition

Oak Island is not unfamiliar with these costs or the damage to shorefront structures caused by eroding shorelines. Some homes on the west end of Oak Island are one hurricane away from being significantly damaged or destroyed. While loss of property is a personal tragedy for the owner, the community is harmed as well.

Example Shoreline Conditions, Oak Island

There are many schools of thought on how to manage a dynamic and eroding shoreline shoreline. Regardless of the specific strategies chosen, beach towns must take the long view. For the town, this will begin with the simple yet tremendously important step of establishing a recurring, well-funded and dedicated savings account for future shoreline management activities and moving forward the the planning, design and permitting of future shoreline response activities.

3.2 Moffatt & Nichol Comprehensive Shoreline Management Plan (CSMP)

The town has not completed the work to design and permit a shoreline management or beach nourishment project to respond to condition of the beach. However, the town retained Moffatt & Nichol to evaluate the erosion problem and identify project and program options for the town. In March 2016, Moffatt & Nichol released their report, "Town of Oak Island, Comprehensive Shoreline Management Plan (CSMP), Pre-Feasibility Study" which was made available to the community and also shared through the Oak Island Beach Funding Plan website. Broadly, the purpose of the CSMP was to advance the town's goal to

"improve the level of storm protection provided to the citizens and visitors of Oak Island." As Moffatt & Nichol made clear, "further evaluation will be required to fully assess the logistics and costs of carrying out the CSMP." (See CSMP, page ii). Through the CSMP, the town took an important look forward but as was discussed in the funding workshops, two years of additional work is necessary to fully design, permit and prepare to implement a shoreline response strategy, assuming funding is in place to move forward.

In evaluating the shoreline, Moffatt & Nichol estimated the volume of sand lost from the town's beaches on an annual basis. The annualized volumetric loss rate provides a means for estimating: (1) the quantity of maintenance fill needed to offset erosion and counter shoreline retreat; and (2) the nourishment interval or the estimated time in years between future beach maintenance or nourishment events. Moffatt & Nichol estimated that Oak Island beaches loose between 125,000 and 250,000 cubic yards of sand annually. Depending on the volume of sand placed and the "level of protection" or LOP desired, the renourishment interval for Oak Island's shoreline management plan could be as frequent as every four years or as long as every eight years. As Moffatt & Nichol made clear, "(t)he different nourishment intervals reflect the risk level associated with postponing a nourishment event." (See CSMP, page ii)

From a project cost standpoint, the key issue addressed own the CSMP is range of project alternatives the town may yet choose to pursue in the future, as defined by the level of protection (LOP) the town seeks to provide to the community. Simply put, the LOP is a function of the quantity of sand placed on the shoreline , the frequency between renourishment projects, and the design,configuration, location, and volume of the beach-dune system created along the shoreline.

In the Moffat & Nichol report and in coastal engineering language, the Level of Protection is generally defined in terms of the storm frequency the project is capable of resisting. Thus, the CSMP presents a range of shoreline response projects capable of resisting or absorbing a Five-Year Return Period Storm, Ten-Year Return Period Storm, Twenty-five Year Return Period Storm or a Fifty-Year Return Storm. As the desired level of protection increases, for

example from a Five-Year to a Fifty-Year Return Period Storm, the volume of sand needed to offset the storms energy increases substantially as does the project cost.

Moffatt & Nichol determined that the current beach profile is adequate to provide protection for against a two- to five-year return period storm event. As was clear in the workshops, the community broadly understands that the current beach profile is degraded, provides little protection, and will be improved if the town can develop and execute a long-term shoreline management program. Other community voices lack confidence in either the wisdom of taking on the problem or the capacity of the town to financially or technically address the threat. These views were in the minority.

Moffat & Nichol's preliminary analysis determined that to raise the level of protection along the entirety of Oak Island to a 10-year RP event would require 1.35 million cubic yards (Mcy) of sand plus an additional 1 Mcy of "advance fill." The 1 Mcy of advance fill is needed so that the level of protection purchased is likely to last until a subsequent beach nourishment project is undertaken to "refill" the beach profile.

According to Moffat & Nichol, to raise the Level of Protection along the entirety of Oak Island to resist a 25-year Return Period Storm event would require 2.0 Mcy of sand, plus an additional 1 Mcy of advance fill, thus reaching a total of 3.0 Mcy of sand. Finally, to raise the Level of Protection along the entirety of Oak Island to a 50-year Return Period Storm Event would require 3.75 Mcy of sand, reaching a total of 4.75 Mcy with advance fill. For comparative purposes, Moffatt & Nichol notes that the USACE recommended 4 Mcy of sand placement project to implement a 50-yr project (meaning it would provide protection to an event between the 25-50 year return periods).

The table below summarizes the essential beach nourishment or fill volumes for three different Levels of Protection. Conceptual cost estimates are also included. It is critical to understand that the cost estimates are preliminary and dependent on the specific sand source — Jay Bird Shoals vs. Frying Pan Shoals — that may be used. Significant additional work will be necessary to refine the conceptual cost estimates, including selection of a

desired Level of Protection" development of a final project design, and acquisition of a permit, including the specific sand source the town intends to use.

Item	Level of Protection to be Maintained for Engineered Beach		
	10 –Year RP	25-Year RP	50-Year RP
Preliminary Costs – Yellow Banks (initial project) & Jay Bird Shoals (Maintenance)			
Volume for Initial Project (CY)	2,350,000	3,000,000	n/a
Initial Project Cost (Est.)	$29,250,000	$35,750,000	n/a
Average Annualized Maintenance Cost (Est.)	$3,078,125	$3,078,125	n/a
Preliminary Costs –Frying Pan Shoals			
Volume for Initial Project (CY)	2,350,000	3,000,000	4,750,000
Initial Project Cost (Est.)	$42,000,000	$51,750,000	$66,750,000
Average Annualized Maintenance Cost (Est.)	$3,687,500	$3,687,500	$3,687,500

Note: Not enough material in Yellow Banks for 50-yr Initial Project

No matter which level of protection is selected for the engineered beach, PARC and Moffatt & Nichol recognize that this level of investment is very significant and the town will have to raise significant new funds in order to build and maintain the project. From an engineering/economics perspective, it is recommended that at least a 10-yr level of protection be selected and preferably a 25-year level of protection. These types of projects are only getting more and more expensive as dredging costs increase and it is much easier to maintain a project once it is built.

To develop the Funding Plan, PARC made two key assumptions: (1) that the start date for construction of a shoreline management/beach nourishment project would be 2022, allowing five budget years in raise funds for the town's dedicated Beach Fund; and (2) that the town should seek to set aside $5 million annually to prepare to implement its future shoreline management program.

4.0 OAK ISLAND CURRENT BEACH FUND REVENUES

Oak Island has established a dedicated Beach Fund, an important first step in preparation to complete and implement the Comprehensive Shoreline Management Plan. The account fluctuates as revenues are deposited and expenditures are incurred and presently, the balance is slightly less than $1 million. All revenues in the Beach Fund are derived from a partial allocation of local accommodation or occupancy taxes. No *ad valorem* tax revenues or other funds are allocated to the Beach Fund. The fund is currently owed approximately $3.5 million to repay an inter-departmental transfer of funds within the town budget, with payments to be made to the Beach Fund over the course of ten years. The Beach Fund currently receives 2% of the town's 5% local accommodation or occupancy tax revenues with the remaining 3% devoted to Tourism. The revenue realized over the past five years is presented in the table below.

Oak Island Occupancy Tax Revenue Collections Year to Date, Partial Collection in 2015-16			
Fiscal Year	**Tourism (3%)**	**Beach Fund (2%)**	**Total**
2011-2012	$641,118	$427,316	$1,068,434
2012-2013	$677,513	$451,355	$1,128,868
2013-2014	$700,455	$557,646	$1,258,101
2014-2015	$770,603	$513,584	$1,284,187
2015-2016	$577,101	$368,909	$946,010
AVG	**$673,358**	**$463,762**	**$1,137,120**

4.1 Accommodation or Occupancy Tax Revenue

Local occupancy taxes are a creature of state law both in their rate, purpose and allowed use. In 1997, the General Assembly enacted uniform municipal and county administrative provisions for occupancy tax legislation, codified in G.S. 153A-155 and G.S. 160A-215. These provisions provide uniformity in the areas of levy, administration, and collection of occupancy taxes.

The allocation of occupancy tax revenue is often more of a differentiating factor between communities in North Carolina than the tax rate charged to consumers. That's not to say that rates vary widely from city to city, but this is usually less important to both governments and visitor economy stakeholders than how the tax revenue is spent at the local level.[1] Generally, the authorized uses of occupancy tax revenue fall into five categories:

1. Destination promotion
2. Tourism-related expenditures, which includes uses varying from staging festivals and events to providing some municipal services in beach towns
3. Funding or debt support for tourism-related capital projects such as convention centers and arenas or visitor attractions.
4. Tourism-related beach nourishment
5. General fund revenue and other non-tourism uses

In an effort to promote uniformity in the state, the N.C. House Finance Committee established the Occupancy Tax Subcommittee, which regularly reviews occupancy tax legislation and seeks to promote uniform provisions when possible. In September 2013, the subcommittee published non-binding "Guidelines for Occupancy Tax Legislation"[2] that generally establish the framework for occupancy taxes in the state, as follows:

- **Rate** – The county tax rate cannot exceed 6% and the city tax rate, when combined with the county rate, cannot exceed 6%.
- **Use** – At least two-thirds of the proceeds must be used to promote travel and tourism and the remainder must be used for tourism-related expenditures, which may include beach nourishment. However, local governments in coastal counties may allocate up to 50% of occupancy tax proceeds for beach nourishment, so long as all remaining proceeds are used for tourism promotion and provided that the use of occupancy tax

[1] 2016 Profile of North Carolina Occupancy Taxes and Their Allocation, Revised and Updated to Reflect 2015 Changes, Magellan Strategy Group, LLC, April 2016

[2] Guidelines for Occupancy Tax Legislation, NC General Assembly, Research Division, September 3, 2013

proceeds for beach nourishment is limited by either a statutory cap or sunset provision.[3]

- **Definitions** The terms "net proceeds", "promote travel and tourism", "tourism-related expenditures", and "beach nourishment" are defined terms:
  - **Net proceeds** – Gross proceeds less the costs to the city/county of administering and collecting the tax, as determined by the finance officer, not to exceed 3% of the first $500,000 of gross proceeds collected each year and 1% of the remaining gross receipts collected each year.
  - **Promote travel and tourism** – To advertise or market an area or activity, publish and distribute pamphlets and other materials, conduct market research, or engage in similar promotional activities that attract tourists or business travelers to the area; the term includes administrative expenses incurred in engaging in these activities.
  - **Tourism-related expenditures** – Expenditures that, in the judgment of the Tourism Development Authority, are designed to increase the use of lodging facilities, meeting facilities, and convention facilities in a city/county by attracting tourists or business travelers to the city/county. The term includes tourism-related capital expenditures.
- **Beach Nourishment**[4] – The placement of sand, from other sand sources, on a beach or dune by mechanical means and other associated activities that are in conformity with the North Carolina Coastal Management Program along the North Carolina

[3] In May 2013, the North Carolina Travel and Tourism Coalition passed a resolution supporting a modification to the Occupancy Tax Guidelines to allow local governments in coastal counties to allocate up to 50% of occupancy tax proceeds for Beach Nourishment, so long as all remaining proceeds are used for tourism promotion and provided that the use of occupancy tax proceeds for Beach Nourishment is limited by either a statutory cap or sunset provision.

[4] During the 2001 Regular Session, the Occupancy Tax Subcommittee of the House Finance Committee considered several bills authorizing the use occupancy tax proceeds for beach nourishment. Although "beach nourishment" was not among the uses contained in the uniform guidelines, the subcommittee nevertheless concluded that beach nourishment was an acceptable expansion of the occupancy tax use provisions. In doing so, the subcommittee drafted this uniform definition of beach nourishment for use in occupancy tax legislation.

shorelines and connecting inlets for the purpose of widening the beach to benefit public recreational use and mitigating damage and erosion from storms to inland property. The term includes expenditures for the following:

- Costs directly associated with qualifying for projects either contracted through the U.S. Army Corps of Engineers or otherwise permitted by all appropriate federal and State agencies;
- The nonfederal share of the cost required to construct these projects;
- The costs associated with providing enhanced public beach access; and
- The costs of associated non-hardening activities such as the planting of vegetation, the building of dunes, and the placement of sand fences.

Only Mecklenburg County has a total occupancy tax rate which exceeds 6%. This county was authorized to impose a 2% occupancy tax in addition to a base 6% tax to be specifically used to fund the NASCAR Hall of Fame in Charlotte. Statewide, no other combined county and city occupancy taxes rate exceeds 6%.

Occupancy tax receipts vary widely across the counties and municipalities in the state. In coastal counties, occupancy taxes can be an important and significant source of revenue attributable to the tourism-based economies common along the state's Atlantic beaches.

FY 2014 Occupancy Tax Collections, Top 10 Counties & Municipalities

Rank	County	Municipality
1	Mecklenburg - $43,674,250	Greensboro - $4,338,541
2	Dare - $21,643,798	Wilmington - $2,729,889
3	Wake - $19,213,443	Ocean Isle Beach - $2,110,446
4	Currituck - $10,579,294	Holden Beach - $1,705,534
5	Buncombe - $9,184,430	Greenville - $1,689,561
6	Durham - $8,828,004	Boone - $1,472,410
7	Carteret - $5,189,070	Hickory - $1,418,592
8	Guilford - $4,979,148	Oak Island - $1,166,651
9	Forsyth - $4,479,204	Wrightsville Beach - $1,075,541
10	New Hanover - $4,348,584	Chapel Hill - $1,044,856

Based on data from the local Government Division, North Carolina Department of Revenue, the Table above shows the occupancy tax receipts for the top counties and municipalities in the state in FY 2014, the latest year for which data is available. The county receipts shown in the table exclude any occupancy taxes collected separately by the municipalities within each listed county.[5] Notably, three municipalities in Brunswick County — Holden Beach, Ocean Isle Beach, and Oak Island — make the top ten recipient list statewide, with nearby Wrightsville Beach in New Hanover County taking the 10th slot.

The Oak Island occupancy tax was authorized in 1997 with the passage of Session Law S.L. 1997-364/House Bill 859. The law authorized Brunswick County to levy a "room occupancy and tourism development tax" and extended that authorization to certain municipalities in the county. Occupancy taxes in Brunswick County are levied by Bald Head Island, Caswell Beach, Holden Beach, Leland, Oak Island, Ocean Isle Beach, Shallotte, Southport and Sunset Beach. Brunswick County and Oak Island already fully levy the allowed 6% occupancy tax rate. Oak Island cannot act to increase the occupancy tax rate or change the use of the funds collected unless the law establishing the tax is modified by the legislature and enacted into law. However, Oak Island can, acting by a resolution adopted by the governing body, repeal or reduce its occupancy tax. Oak Island received its occupancy tax authorization in 1999 when the town was founded through the consolidation of Long Beach and Yaupon Beach.

The 6% Oak Island/Brunswick County occupancy tax rate applies to all rentals of hotel/motel rooms, homes, cottages or other lodging facilities that are rented to the same person for less than 90 continuous days. Brunswick County's occupancy tax share is limited to 1% of the 6% levied, with the county's net proceeds remitted to the Brunswick Tourism Development Authority "to promote travel and tourism in Brunswick County." In Oak Island, the 5% occupancy tax is administered by the town council and is allocated two distinct purposes:

[5] 2016 Profile of North Carolina Occupancy Taxes and Their Allocation, Revised and Updated to Reflect 2015 Changes, Magellan Strategy Group, LLC, April 2016

- **Tourism Related Expenditures** — 3% of the Oak Island occupancy tax levied is allocated for "tourism related expenditures;" and
- **Beach Renourishment and Protection** — the remaining 2% of the Oak Island occupancy tax is allocated "only for beach renourishment and protection." (See S.L 1997-364/HB859, Sec. 13(c) Use of Proceeds). By law, the 2% beach renourishment and protection levy can only be collected if the town first imposes the 3% for tourism related expenditures.

Under the law, the term 'tourism-related expenditures' in Oak Island includes the following types of expenditures: criminal justice system, fire protection, public facilities and utilities, health facilities, solid waste and sewage treatment, and the *control* and *repair of waterfront erosion*" (emphasis added).

Based on practice in other municipalities, local governments have some degree of discretion in the interpretation of the statutes governing the permissible uses of locally levied and collected occupancy tax revenues. In Oak Island, the definition of "tourism related expenditures," for which 3% of the levy is allocated, specifically allows this portion of the revenues to be used for, among other things, "*control* and *repair of waterfront erosion,"* a broad phrase that would arguably include expenditures for beach nourishment, dune enhancement and related costs plan and implement the town's Comprehensive Shoreline Management Plan.

Occupancy taxes are attractive for shoreline management costs because they are a recurrent and reliable revenue stream, typically increasing on average by 1% to 3% per year, and are directly tied to and grow with beach tourism visitors. Most importantly, occupancy tax revenues, while collected on local rental transactions are the responsibility of the renters, not the parcel or rental property owner. In this way, occupancy taxes are an effective method of including revenues from out-of-town visitors in the community's beach project funding program. PARC believes these revenues can form an increasingly important cornerstone for the town's long-term funding strategy for shoreline management.

The town should explore whether the current authorizing legislation grants the town the discretion to reallocate the community's local occupancy tax revenues to increase the share dedicated to beach nourishment from 2% to 3% be shifting1% of the 3% now allocated for 'tourism-related expenditures" to beach nourishment.

There are two reasons such an inquiry may be favorable and allow the town to increase the allocation of occupancy tax revenues to the Beach Fund. First, the definition of "tourism related expenditures" — applicable to 3% of the town's 5% occupancy tax rate — in the authorizing legislation specifically includes "*control* and *repair of waterfront erosion.*" Development and implementation of the town's CSMP would appear to be squarely within the authorization to use a portion of the 3% levy for "*control* and *repair of waterfront erosion."*

Second, the reallocation of funds is consistent with the 2013 "Guidelines for Occupancy Tax Legislation" issued by the Occupancy Tax Subcommittee of the N.C. House Finance Committee. The guidelines allow "local governments in coastal counties to allocate up to 50% of occupancy tax proceeds for beach nourishment." The Brunswick County/Oak Island occupancy tax rate is 6%, suggesting that up to 3% or 50% of the proceeds could be allocated to beach nourishment. Based on a five year average, the 2% occupancy tax dedicated to beach nourishment generates $463,762 annually or about $231,881 for each one percent of the levy. If one additional percent of the town's occupancy tax revenue stream were allocated to beach nourishment rather than the more general "tourism related expenditures," the town's annual Beach Fund contribution would reach approximately $673,358, based on the average revenues over the last five years or 22.4% of the recommended goal of at least $3 million in Beach Fund contributions per year.

Whether such a reallocation is appropriate is left to the discretion of the town council and must be weighed in light of other revenue demands on these funds. We believe, however, it is an option worthy of further consideration by the town.

With Respect to the current Beach Fund, **PARC recommends** that the town undertake the following:

(1) Investigate and if possible shift the allocation of the 5% local occupancy tax revenues such that 3% of the collections are dedicated to the Beach Fund and 2% are reserved for "tourism related expenditures;" and

(2) Recognizing the occupancy tax revenues alone are insufficient to support completion and implementation of the CSMP, establish an ad valorem tax rate specifically dedicated to the Beach Fund, based on the options discussed and set forth in Section 7.

4.2 County and State Contributions: Lockwood Folly/AIWW Crossing Dredging

The Oak Island Beach Fund does not include any county or state revenues. With one minor exception, Brunswick County and the state of North Carolina do not presently contribute nor have they agreed to contribute to future implementation of the Oak Island Comprehensive Shoreline Management Plan. Should the town elect to complete the CSMP and move forward with implementation, this absence of partner funding would need to be addressed in the next five years. Fully funding the development and implementation of the town's CMSP using occupancy taxes alone is impossible. By taking the first step and committing local ad valorem tax revenues to the Beach Fund, the town will strengthen its position when seeking future partner contributions from the county and state.

Presently, the County and the N.C. Division of Water Resources provide financial assistance for channel maintenance and dredging of the Lockwood Folly/AICW crossing. As documented by Moffatt & Nichol, Lockwood Folly channel maintenance events historically have occurred four times per year or once a quarter but recent funding restrictions have limited recent maintenance events to approximately twice per year. Dredging of the AIWW crossing occurs about every two years with dredged sand shared between Holden Beach and Oak Island.[6]

As a shallow draft inlet, the state Division of Water Resources contributes up to 50% of the non-federal cost of the project with the remainder contributed by the county and the

[6] Moffatt & Nichol, Comprehensive Shoreline Management Plan, Draft Pre-Feasibility Study, March 2016, pg. 77-80.

municipality — either Oak Island or Holden Beach — benefitting from the disposal of sand. While the County and state contribution are not specifically intended to support shoreline management or beach nourishment activities in the town, the sand dredged from the inlet and AIWW crossing has been beneficial to Oak Island's west end beaches in the past. The county and state will be critical partners if the town is to implement its CSMP in the future.

Because of the need to substantially advance the project design and permitting processes, implementation of the Oak Island CSMP is not expected for a period of five years. In this time period, Oak Island must work to secure reliable and predictable financial assistance from its county and state partners.

PARC recommends that the town over the next 12 months:

(1) Seek partnering opportunities with the USACE to expand maintenance opportunities for the Eastern Channel, a potential source of relatively low-cost sand for the town's western beaches;

(2) Open an on-going dialogue with Brunswick County to seek and secure a reliable, recurrent county contribution to help implement the CSMP with a goal of securing an commitment of $1 million annually within two years; and

(3) Work with the Representative Frank Iler and Senator Bill Rabon, the North Carolina coastal delegation, NC Division of Water Resources, and state leaders to support and obtain increased state funding for the community's CSMP and beach nourishment projects.

5.0 LOCAL REVENUES NEEDED

As identified by Moffatt & Nichol, Oak Island faces recurrent erosion over the long-term and, in response, is working to develop a Comprehensive Shoreline Management Plan (CSMP). To determine the overall cost of the program over time requires that the shoreline management program by fully developed, sand sources specifically identified, project designs completed, and permits for implementation acquired. Equally important to establish definitive cost estimates and annual revenue demand is to determine or assume for planning purposes the year in which the erosion response effort will commence. The

critical project design, permitting and sand source factors are still under development and are not currently in place. Thus, the Beach Project Funding Plan must necessarily be based on reasonable assumptions as to the project cost and timing. As the town's efforts to complete the CSMP advance, it will be important that the funding plan be revisited, revised and updated over time.

5.1 Annual Target Revenues

Based on the preliminary CSMP, PARC proposed in the community workshops that Oak Island seek to establish a dedicated Beach Fund revenue stream of $5 million annually, a level of funding that would substantially contribute to executing a comprehensive shoreline management program once developed. In the workshops, three important overarching considerations were established in discussion with the community. First, it was clear that the community recognized that the $5 million annual revenue target was preliminary and that additional funding may well be required over and above this amount as the shoreline response program comes into focus. Second, the community emphasized that reaching a $5 million annual level of funding using occupancy taxes and new *ad valorem* revenues, without third party assistance, may not be affordable for all residents and that changes in *ad valorem* tax rates should be phased in or implemented over time. Third, the community recognized that third party funders like the state and Brunswick County were critical financial partners if the Comprehensive Shoreline Management Program, once fully developed, is to be successfully implemented.

5.2 Designed Revenue Shortfall

In developing the funding plan, PARC recognized the community input and evaluated potential ad valorem rates necessary to establish an annual Beach Fund revenue stream of $5 million. Assuming the occupancy tax grows to on average $500,000 per year and based on the current assessed valuations in the town, Oak Island would need to increase property taxes town-wide by 18.2 cents per $100 value (45.7 cents/$100) to reach a $5 million annual contribution to the beach fund. Such an increase would represent a 66.2% increase in property taxes town-wide, a level clearly beyond reasonable consideration. Alternatively, PARC sought to develop and evaluate new revenue options with the goal of generating $3

million annually for the Beach Fund, assuming the occupancy tax revenues will increase over time and reach, on average, $500,000 per year to the fund.

PARC has developed a series of new revenue options that effectively create a designed revenue shortfall. None of the options developed for consideration will, in and of themselves, produce new revenues sufficient to reach the $5 million annual target. Instead, the options contemplate that the town and community must work together to develop third party funding partnerships with Brunswick County and the state to successfully address the long-term erosion problem in the town. Simply put, based on input from the community, it is not affordable for the town to independently fully fund its Comprehensive Shoreline Management Program, rather the town should seek to establish a sustained Beach Fund revenue level of at least $3 million annually, which would be a necessary and substantial step forward, and seek supplemental revenues as described in later in this report.

PARC recommends that the town take the first financial step this fiscal year and expand the local revenues dedicated to its Beach Fund. Without this initial local action, future funding partnerships with the state and county are less likely to arise.

6.0 CONSIDERATIONS IN DEVELOPING NEW REVENUE OPTIONS

6.1 Overview of New Revenue Options

In developing new revenues sufficient to support the town's future Comprehensive Shoreline Management Plan, PARC and the community, through the public workshop process, explored several options to generate new revenue for the town's Beach Fund. These options included:

- A uniform town-wide increase in ad valorem tax rates, coupled with higher rates on properties closer to the shoreline creating a tiered ad valorem rate structure
- An assessment fee similar
- Implementation of a paid parking program
- Creating and implementing a beach user fee program such as a beach badge system
- Increasing the occupancy tax rate
- Reallocating current occupancy tax revenues received by the town

- Imposing a special surcharge on beach rentals in the community

These options are reviewed in detail in section 8 taking into account the considerations which follow immediately below.

6.2 Affordability

Affordability was a key consideration in development of the funding plan and two factors were evaluated to address this issue. First, PARC presented in the workshops a general guidance for development of new ad valorem rates that the per month cost of any adjustment should be limited to $75 per month on $500,000 property and $35 per month on a $250,000 property. While no single criteria can define "affordability" given the variety of circumstances faced by property owners in the community, these guidelines were useful in evaluating the range of ad valorem tax increases that could be considered. Below, PARC has provided a table showing the range of *ad valorem* rates and the cost of that rate for range of property values from $100,000 to $750,000. The rates illustrated in the table reflect the rates that alone, or in combination with a tiered rate system, were considered by PARC.

The Ad Valorem Rate Cost Table below is included the help the community place potential property tax adjustments in context and to better answer the question often heard from owners, "Well, what's the bottom line for me?"

The table shows, for example that if property tax rates were increased by 4 cents per $100 value, the owner of a $100,000 property would pay an additional $3.33 per month or $40 per year. An increase of 10 cents per $100 value would cost this same owner $8.33 per month or $100 per year. If the tax rate were increased by 16 cents per $100 value, this same owner would pay an additional $13.33 per month or $160 per year.

COST OF AD VALOREM TAXES AT SIX SAMPLE RATES ON A PER MONTH & PER YEAR BASIS

Value	4 cents per $100 Value		8 cents per $100 Value		10 cents per $100 Value		12 cents per $100 Value		14 cents per $100 Value		16 cents per $100 Value	
	Month	Year	Month	Year	Month	Year	Month	Year	Month	Year	Month	Year
$100,000	$3.33	$40.00	$6.67	$80.00	$8.33	$100.00	$10.00	$120.00	$11.67	$140.00	$13.33	$160.00
$150,000	$5.00	$60.00	$10.00	$120.00	$12.50	$150.00	$15.00	$180.00	$17.50	$210.00	$20.00	$240.00
$200,000	$6.67	$80.00	$13.33	$160.00	$16.67	$200.00	$20.00	$240.00	$23.33	$280.00	$26.67	$320.00
$250,000	$8.33	$100.00	$16.67	$200.00	$20.83	$250.00	$25.00	$300.00	$29.17	$350.00	$33.33	$400.00
$300,000	$10.00	$120.00	$20.00	$240.00	$25.00	$300.00	$30.00	$360.00	$35.00	$420.00	$40.00	$480.00
$350,000	$11.67	$140.00	$23.33	$280.00	$29.17	$350.00	$35.00	$420.00	$40.83	$490.00	$46.67	$560.00
$400,000	$13.33	$160.00	$26.67	$320.00	$33.33	$400.00	$40.00	$480.00	$46.67	$560.00	$53.33	$640.00
$450,000	$15.00	$180.00	$30.00	$360.00	$37.50	$450.00	$45.00	$540.00	$52.50	$630.00	$60.00	$720.00
$500,000	$16.67	$200.00	$33.33	$400.00	$41.67	$500.00	$50.00	$600.00	$58.33	$700.00	$66.67	$800.00
$550,000	$18.33	$220.00	$36.67	$440.00	$45.83	$550.00	$55.00	$660.00	$64.17	$770.00	$73.33	$880.00
$600,000	$20.00	$240.00	$40.00	$480.00	$50.00	$600.00	$60.00	$720.00	$70.00	$840.00	$80.00	$960.00
$650,000	$21.67	$260.00	$43.33	$520.00	$54.17	$650.00	$65.00	$780.00	$75.83	$910.00	$86.67	$1040.00
$700,000	$23.33	$280.00	$46.67	$560.00	$58.33	$700.00	$70.00	$840.00	$81.67	$980.00	$93.33	$1120.00
$750,000	$25.00	$300.00	$50.00	$600.00	$62.50	$750.00	$75.00	$900.00	$87.50	$1050.00	$100.00	$1200.00

When considering property tax rate adjustments, it is useful to keep in mind the unit cost of a one-cent increase in property tax rates. On a $100,000 property, a one-cent increase in property tax rates costs the owner $0.83 per month or $10 per year. For the owner of a $500,000 property, a one-cent increase in the tax rate would cost the owner $4.17 per month or $50.00 per year.

Properties in the town typically range from $200,000 to $400,000 in value. In this range, the owner of a property valued at $200,000 would face an additional tax bill of $16.67 per month or $200 per year if property taxes were raised by 10 cents per $100 value and

$26.67 per month or $320 per year if the tax rates were increased by 16 cents per $100 value.
The owner of a property valued at $400,000 would face an additional tax bill of $33.33 per month or $400 per year if property taxes were raised by 10 cents per $100 value and $53.33 per month or $640 per year if the tax rates were increased by 16 cents per $100 value. Note that a 16 cent increase in property taxes on a property valued at $750,000—this highest rate was only considered in Zone 1, the Beachfront Zone — would exceed the affordability goal of $75 per month, reaching a cost of $1,200 annually or $100 per month.

Whether a specific increase in property tax rates is considered "affordable" for a particular owner must be left to each individual. However, it is helpful to keep in mind the magnitude of the costs at issue as expressed in real dollar terms.

Second, PARC shared with the community the existing state programs that provide relief for seniors and the disabled property owners living on fixed incomes. These state property tax relief programs are not amendable by the town but can provide important benefits for those who qualify. There are three state property tax relief programs:

1. **Elderly or Disabled Exclusion (G.S. 105-277.1)** — This program excludes the greater of the first $25,000 or 50% of the appraised value of the permanent residence of a qualifying owner. A qualifying owner must either be at least 65 years of age or be totally and permanently disabled. The owner cannot have an income amount for the previous year that exceeds the income eligibility limit for the current year, which for the 2015 tax year is **$29,000**. (See G.S. 105-277.1 for the full text of the statute).

2. **Disabled Veteran Exclusion (G.S. 105-277.1C)** — This program excludes up to the first $45,000 of the appraised value of the permanent residence of a disabled veteran. A disabled veteran is defined as a veteran whose character of service at separation was honorable or under honorable conditions and who has a total and permanent service-connected disability or who received benefits for specially adapted housing under 38 U.S.C. 2101. There is no age or income limitation for this program. This benefit is also available to a surviving spouse (who has not remarried) of either (1) a disabled veteran

as defined above, (2) a veteran who died as a result of a service-connected condition whose character of service at separation was honorable or under honorable conditions, or (3) a service member who died from a service connected condition in the line of duty and not as a result of willful misconduct. (See G.S. 105-277.1C for the full text of the statute.)

3. **Circuit Breaker Tax Deferment Program (G.S. 105-277.1B)** — Under this program, taxes for each year are limited to a percentage of the qualifying owner's income. A qualifying owner must either be at least 65 years of age or be totally and permanently disabled. For an owner whose income amount for the previous year does not exceed the income eligibility limit for the current year, which for the 2015 tax year is **$29,000**, the owner's taxes will be limited to four percent (4%) of the owner's income. For an owner whose income exceeds the income eligibility limit (**$29,000**) but does not exceed 150% of the income eligibility limit, which for the 2015 tax year is **$43,500**, the owner's taxes will be limited to five percent (5%) of the owner's income.

6.3 Timing - Should the Town Act to Increase Revenue This Year?

In analyzing the funding options that could be employed, it is clear that the timing of future projects and the number of years available to save for them are the most critical and significant variables in future tax rates. For every year the town delays increasing revenues to the Beach Fund, the tax rate necessary to support future beach projects will necessarily be increased.

It is often said that "time is money" and this can be no more clearly demonstrated than in the beach project funding challenges facing Oak Island. While it may be tempting to delay the implementation of new tax rates to generate needed revenues for the Beach Fund, to do so would not reduce the cost to the community but only compress the time available to fulfill the town's financial goals. Unless projects are delayed, waiting to implement new revenue proposals will simply drive up the annual savings rate and, in the end, will imposes a greater burden on individual property owners.

Based on the concerns expressed for the affordability of the savings plan, **PARC recommends** that the town adopt and implement an ad valorem rate increase town-wide

of at least 4.25 cents/$100 and preferably 8 cents/$100 value for the upcoming fiscal year. While not universally supported, implementing the savings plan this year is prudent and in the community's long-term financial interest.

6.4. Dedicated vs. General Revenue Accounts

When raising funds for capital improvement projects, municipalities have the option of placing those funds in either the general revenue account or creating a dedicated account, which is set aside for a specific project or purpose. General fund accounts can be attractive because they allow greater access to and flexibility in the expenditure of funds. On the other hand, dedicated fund accounts can only be used for specified purposes and in this way limit the discretion and flexibility of the municipality in the expenditure of the funds.

In this case, PARC recommends that the town continue to use its dedicated Beach Fund account for all new and additional local revenues to support its beach management program. In this way, the property, occupancy taxes and other revenues collected for the beach management program will be used for specified purposes only.

PARC further recommends that expenditures from the dedicated Beach Fund continue to be limited to the following purposes:

(1) The design, permitting, construction and direct and associated expenses for future beach projects;

(2) The annual monitoring of the beach including beach profiles and reports necessary to ensure the future beach projects are eligible for FEMA reimbursement if a declared natural disaster occurs;

(3) A modest annual beach Operations & Maintenance fund not to exceed an amount to be determined by the town for small-scale recovery actions such as sand pushing, repair or replacement of dune crossovers, dune plantings, and dune replenishment actions following moderate storm events; and

(4) Implementing future beach nourishment/shoreline projects permitted by Moffatt & Nichol.

6.5 FEMA Eligibility - Protecting the Town's Shoreline Investment

In the public comment, it was strongly articulated that the town should be prepared to undertake the tasks necessary to ensure that future beach projects are eligible for FEMA reimbursement in the event of severe damage from hurricanes or storms. No other proposition was as universal supported as this one. FEMA reimbursement occurs only in the event that the President declares a disaster in accordance with statute.[4] To be eligible for FEMA funding, disaster recovery work on the town's beach must be:

- Required as the result of a major disaster event,
- Located within a designated disaster area, and
- The legal responsibility of an eligible applicant, such as the Town of Oak Island

If these basic eligibility requirements are met, FEMA can make available "public assistance" for restoration of eligible beach projects following a disaster event. In accordance with 44 CFR §206.226(j)(2), FEMA can provide funds for the repair, restoration, reconstruction, or replacement of an "eligible beach" following a federal disaster declaration. If all requirements are satisfied, the level of federal "public assistance" from FEMA will be based on the condition of the beach, as it existed immediately prior to the disaster.

FEMA guidelines governing public assistance for beaches are published in "Category G: Parks, Recreational Facilities and Other Items." The relevant provisions provide in part that "a beach is considered eligible for permanent repair (and reimbursement by FEMA) if it is an improved beach and has been routinely maintained prior to the disaster. A beach is considered to be an "improved beach" if the following criteria apply:

- The beach was constructed by the placement of sand to a designed elevation, width, grain size, and slope; and

- The beach has been maintained in accordance with a <u>maintenance program involving the periodic re--nourishment of sand at least every 5 years</u> <u>(emphasis added).</u>

The maintenance program must also preserve the original beach design, not simply add sand here and there. Typically, FEMA will request the following from an applicant before approving assistance for so called "permanent" restoration of a beach:

- Design studies, plans, specifications, construction documents, and as--built surveys for the original nourishment, including analysis of grain size;
- All studies, plans, construction documents, and as--built surveys for every subsequent renourishment;
- Documentation of regular maintenance or nourishment of the beach including how the renourishment is determined and funded; and
- Pre-- and post--storm profiles that extend at least to the seaward edge of the sub--aqueous nearshore zone out to the closure depth, usually --15 to --20 feet below sea level.

Permanent restoration of sand on a natural or unimproved beach is not eligible for FEMA pubic assistance. Following a declared disaster, the amount of sand eligible for replacement with FEMA funds is limited to the amount lost as a result of the disaster event, not to rebuild the beach to its original design. The annual pre-- and post--storm beach profiles are used to determine the eligible volume of sand.

PARC recommends that the town include in its Beach Fund sufficient monies to pay for its annual monitoring program, including the beach profiles and other field data, and annual monitoring reports. Note that if pre--storm profiles are not obtained, the estimated pre--storm sand volume lost in a disaster can be extrapolated from the design study and other factors, but in the absence of definitive shoreline profile data, it is likely that the town may receive less in FEMA reimbursement.

It evaluating potential FEMA assistance in the event of a declared disaster, it is important to remember the following:

- The cost to replace sand that eroded prior to the disaster is <u>not</u> eligible for FEMA reimbursement funding. FEMA only pays for sand that was lost in the disaster

event itself. However, if a FEMA funded beach project is initiated after a disaster event, applicants are encouraged to supplement the FEMA-- paid renourishment volume to bring the project back to its original design.

- FEMA will not pay for permanent restoration of sand on a natural or unimproved beach. Public assistance is only possible if the town has created an engineered beach and monitored and maintained that beach prior to the disaster event.

- Not all beach nourishment projects qualify for "FEMA Beach" eligibility.
    - Emergency or one--time renourishment projects, even if built to a design, are not eligible because they do not have an established and adhered to maintenance program.
    - Emergency or "as needed" renourishment projects undertaken when the beach has eroded are not eligible maintenance programs. The beach must be maintained through scheduled renourishment projects at an interval not more than five years.
    - Renourishment projects must be to the project design; partial renourishment efforts or "hot spot" nourishments are not considered maintenance.

The bottom line is that FEMA disaster assistance for public beaches is limited. There are specific requirements established in law that must be met if reconstruction of the town's future beach projects will be eligible for public assistance reimbursement following a declared disaster. Most critically, the town must monitor and maintain the beach once it is constructed. According to FEMA public assistance Guidance Category G, maintenance of the beach requires a renourishment interval that is no more than five years in duration.

PARC therefore recommends that the town seek in its Comprehensive Shoreline Management Plan to renourish its beach at an interval of not more than five years and prepare to monitor the beach annually. If the beach reimbursement interval is greater than five years, the town should coordinate the planning decision with FEMA to ensure its future beach projects remain FEMA eligible. This recommendation is strictly in accordance with FEMA's requirements for public assistance for replacement of beach sand following a declared disaster.

6.6 Debt Financing vs. Pay As You Go

In developing the Funding Plan, several commenters asked whether the town would borrow the funds necessary for its ongoing beach maintenance program or whether it could implement a shoreline response strategy on a pay-as-you-go basis.

In PARC's view, most members of the community stated a clear preference to limit debt financing for the future beach renourishment projects, if feasible. Given revenue limitations, some portion of future beach projects costs made need to be financed but debt financing should be limited and the debt repayment period should not extend beyond the expected project life of the beach. The community's preference for a "pay-as-you-go" approach rests on three fundamental understandings.

First, the community recognizes that debt financing for beach renourishment projects is risky and could financially overwhelm the town in the long run. Beach maintenance is an on-going responsibility not a one-time affair. Debt financing makes sense for one-time capitol expenditures such as construction of a park or a water tower because the debt is typically paid off over time with little risk that the project expense will reemerge or reoccur during the repayment period. That is not true for beach renourishment projects that must be repeated periodically.

Estimates from Moffat & Nichol indicate that the town is likely to need to renourish its beach approximately every four or eight years, barring major storm events and depending on the quantity of sand placed in the initial project. Were the town to borrow all necessary funds for a beach renourishment project, it is possible that a second project could arise during the debt repayment period. In such an event, the town could end up paying for two beach projects at the same time, creating a financial burden that may well exceed the community's capacity to pay.

Second, because of the added borrowing expenses -- interest payments and administrative complexity -- debt financing would increase the cost of the town's

beach renourishment program. As future interest rates are uncertain, PARC has not documented the incremental increase in costs if debt financing is used but a 2% to 4% increase in the project cost could reasonably be expected.

Third, by planning ahead now, the town gives itself the maximum time to save and put itself in a position to limit the use of debt financing to implement the Comprehensive Shoreline Management Plan, should the town elect to move forward.

PARC strongly recommends that the town move forward to add new revenue to its Beach Fund this fiscal year in a manner that gives the town the greatest opportunity to pay for future renourishment projects with minimal reliance of debt financing.

6.7 Tiered Ad Valorem Tax Rates

The community workshops showed broad support for a tiered ad valorem tax approach to fund the town's Comprehensive Shoreline Management Plan, an approach PARC supports and recommends given the characteristics of the town. PARC explored several potential tiered rate structures and zone boundaries which were presented in Workshop 2 and refined and presented in Workshop 3. Based on community input, PARC recommends that the town establish a tiered ad valorem rate structure through creation of two zones described below. The proposed zones, which would be implemented through creation of two Municipal Service Districts, will allow the town to assess higher ad valorem tax rates for parcels closer to the beach. The proposed MSD zones are described below.

Zone 1 - Beachfront: Zone 1 encompasses the first two rows of homes along the beach, all beach fronting lots that intersect the beach, and all parcels west of 42nd Place. The zone as a total assessed value $509,939,37 and contains 1,488 Parcels. The average assessed value in Zone 1 is $342,701.

Zone 2 - Near Beach: Zone 2 is designated the Near Beach zone and can be described as the area within a one-quarter mile walk to an established public beach access point. In

general, the zones includes the area seaward of Davis Canal and seaward of Oak Island Drive, however, in the eastern end of the town, the quarter mile boundary coincides with Live Oak Drive street. The total assessed value in Zone 2 is $474,652,877 and includes 1,874 taxable parcels. The average tax assessed value in Zone 2 is $253,283.

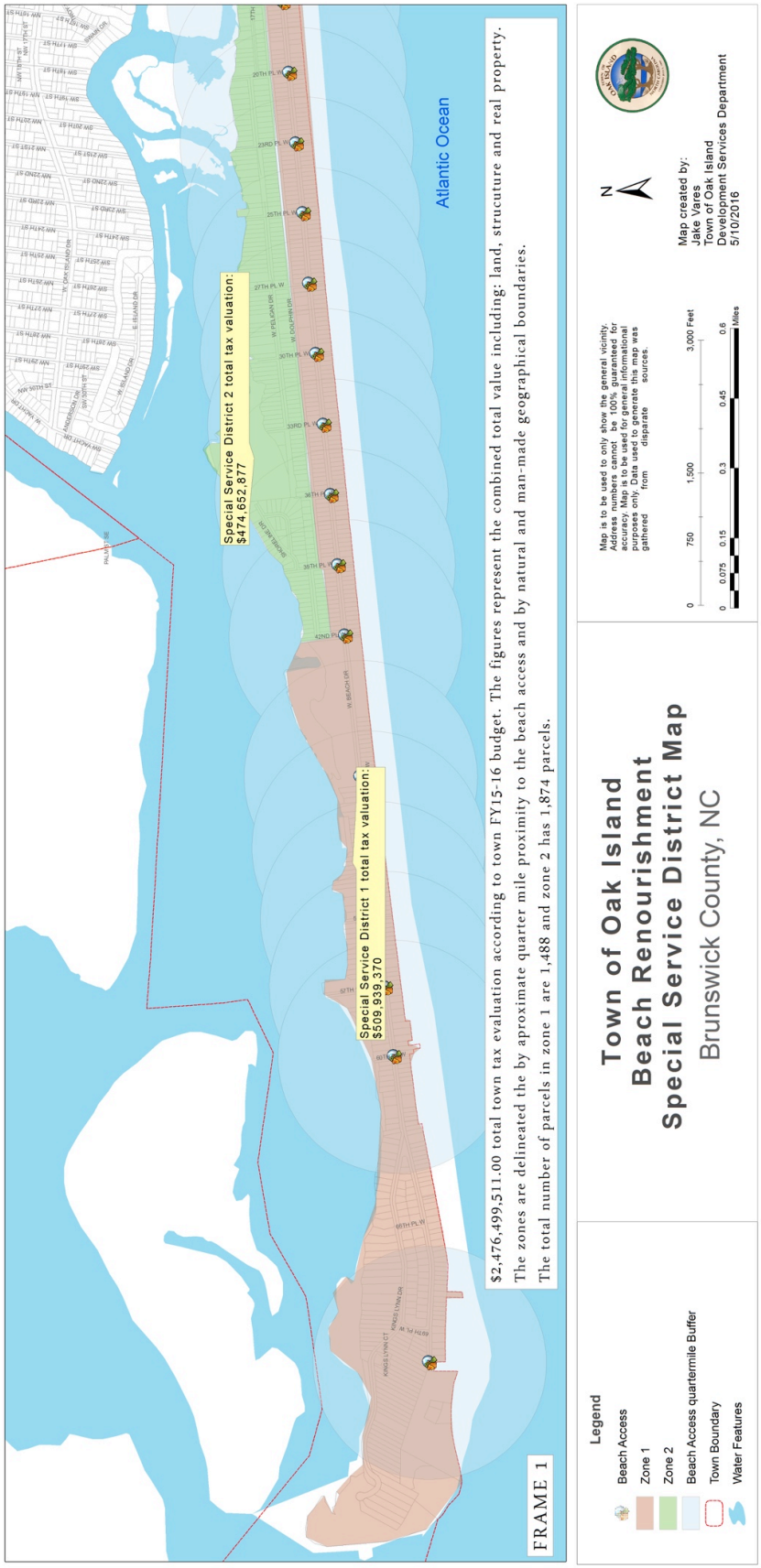
Rest of the Town: This area can be described as all properties outside of Zones 1 and 2 and generally encompasses the parcels landward of Davis Canal and landward of Oak Island Drive and Live Oak Drive in the east end of town. As the largest area of the community, this area has the highest total cumulative assessed value at $1,491,907,264 spread over 8,866 parcels. The average assessed value in this area is the lowest, when compared to Zones 1 and 2, at $168,273.

Area	Area Value	No. Parcels	Avg Value/Parcel
All Town Value	$2,476,499,511	12,228	$202,526.95
Zone 1 Value	$509,939,370	1,488	$342,701.19
Zone 2 Value	$474,652,877	1,874	$253,283.29
Rest of Town Value	$1,491,907,264	8,866	$168,272.87

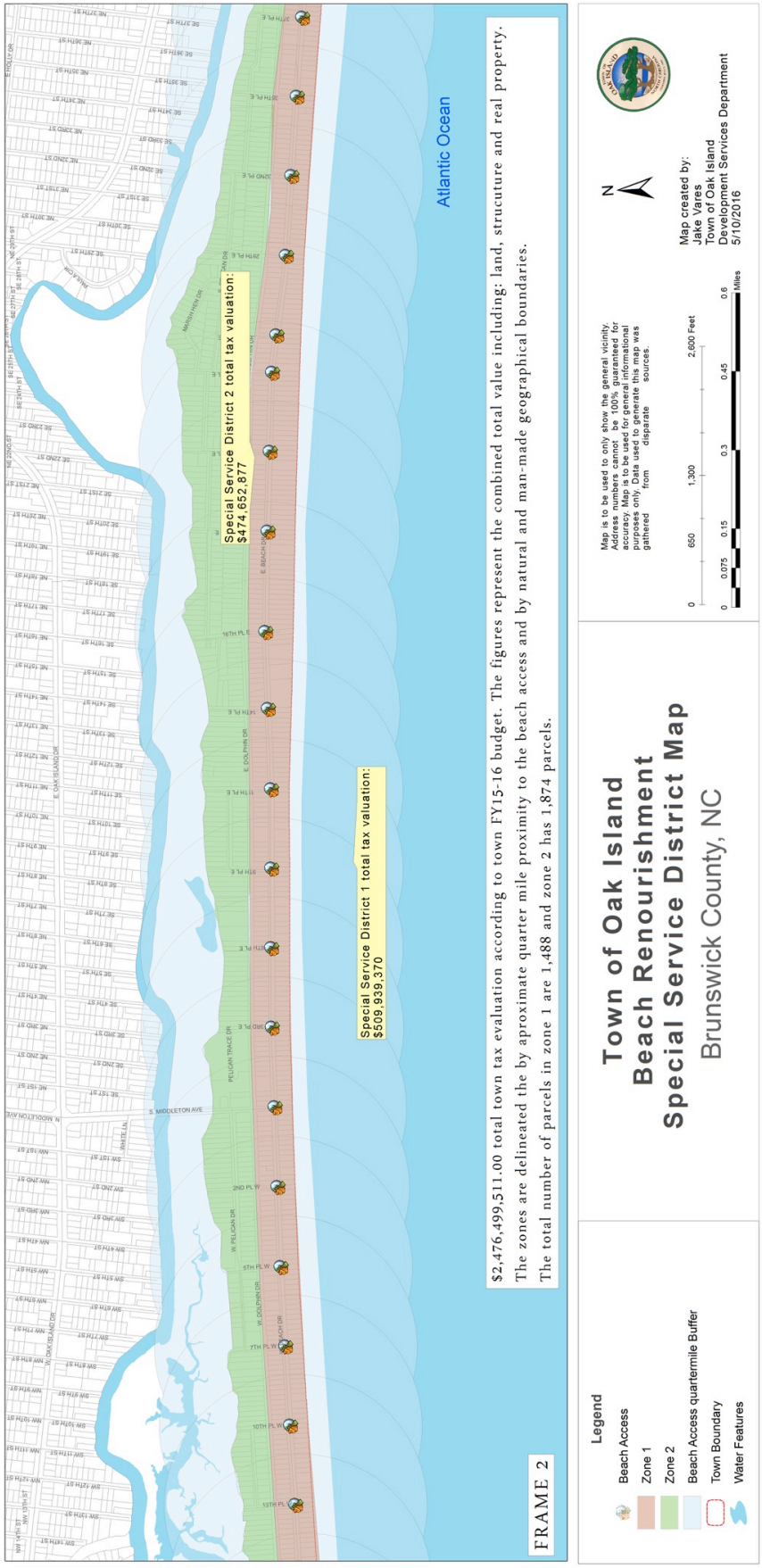
The zone maps were prepared by the Planning Department in a scale more appropriate than can be included in this report. The zone maps for the town were prepared in three segments and include notations as to zone values based on current assessments and conditions.

In general, a tiered ad valorem rate structure is reasonable for Oak Island for several reasons. First, unlike many beach communities, Oak Island community has a substantial year-round population and distinct neighborhoods and communities of interest that extend beyond the immediate beach front area. Second, the risks of shoreline erosion are not uniform within the community. Property owners immediately adjacent to the beach — Zone 1 — face a higher risk of storm damage and property loss than more landward parcels in Zone 2 or located north of the Davis Canal or Oak Island Drive. Third, access to the beach is affected by physical and man-made barriers or constraints such as the Davis Canal and Oak Island Drive, a major thoroughfare that bisects the island. In Zone 1, property owners

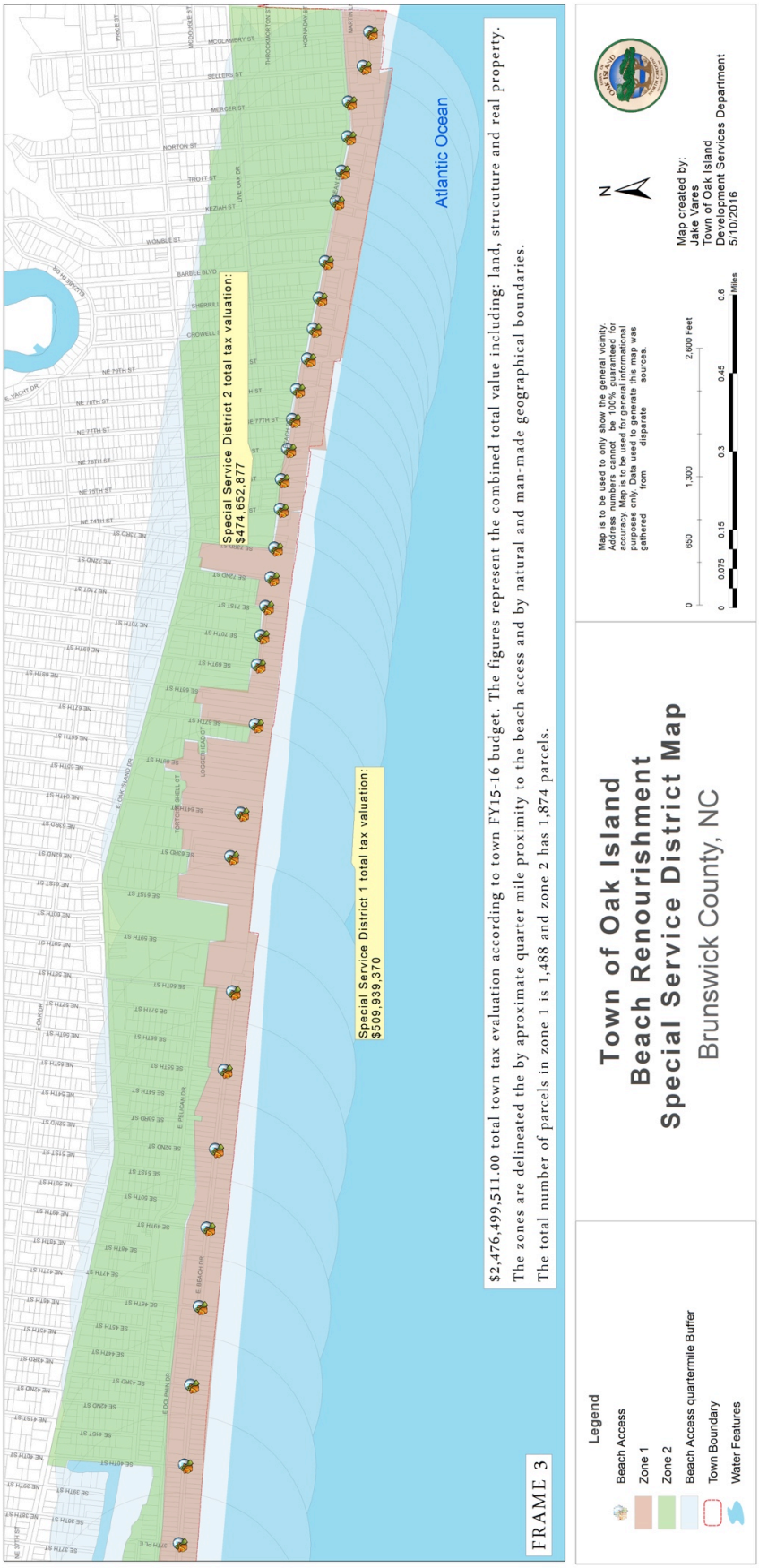
Zone 1-Beachfront & Zone 2-Near Beach
West End Area



Zone 1-Beachfront & Zone 2-Near Beach Middle Town Area



Zone 1-Beachfront & Zone 2-Near Beach
East End Area



face greater risks of storm damage and are within easy walking distance to the town's public beach access points. The boundary of Zone 2 was established based on a one-quarter mile proximity to the beach access points along the town's beachfront with the limitation that the boundary would be seaward of the Davis Canal and Oak Island Drive.

PARC recognizes that implementation of higher ad valorem tax rates in Zones 1 and 2 would require establishment of two Municipal Service Districts or MSDs. Due to procedural and public notice requirements, implementation of any MSDs could not occur until the 2017-18 Fiscal Year. In Fiscal Year 2016-17, the town can adopt base ad valorem tax rate increase to apply town-wide and move forward with efforts to put in place higher rates in Zones 1 and 2 through creation of MSDs the following fiscal year.

The analysis below is intended to estimate the new revenues the town would realize should it move forward to adopt a base rate ad valorem increase for Fiscal year 2016-17 and higher rates in Zone 1 and Zone 2 through adoption of MSDs in Fiscal Year 2017-18.

7.0 EVALUATION OF AD VALOREM RATE ADJUSTMENT

In evaluating adjustments to ad valorem rates in the town, it is useful to consider the overall property tax rates in Brunswick County. Property owners in Oak Island pay an overall property tax rate of 80 cents per $100 assessed value. This total tax rate is made up 48.5 cents imposed by the county, 27.5 cents imposed by the town and 4 cents imposed by the local Dosher Hospital District. The total tax assessed value in Brunswick County in 2015 was $22.92 billion compared to a total assessed value of $2.432 billion in the Town of Oak Island. The town's property value therefore represents 10.6% of all of the taxable value in Brunswick County.

In the last five years, several North Carolina beach towns have faced the difficult choice of raising property taxes to fund their shoreline management programs. The Table below shows the property tax rates for three beach communities in the southeast region of the state. Each of these towns is dedicating at least 12 cents per $100 value in property taxes

Brunswick County Select Town Tax Rates	
(Cents per $100 value)	
Beach Town	Tax Rate
Brunswick County	48.5
Holden Beach	15
Sunset Beach	16
Ocean Isle Beach	18.75
Caswell Beach	22
Southport	24.56
Oak Island	27.5
Bald Head Island	66.63
BHI Zone A - Beachfront	74.71
BHI Zone B – Near Beach	71.69
Shallotte	35
Bolivia	50

to their shoreline management programs, with an average allocation of 14.24 cents per $100 value. In these communities, property taxes dedicated to their beach funds constitute on average 39.2% of all property taxes collected. In comparison, the town of Oak Island has yet to dedicate any property tax revenues to its Beach Fund.

Example Property Tax Rates in Similar Beach Towns (Cents/$100 Value)

Town	Overall Tax Rate	Beach Tax Rate	Beach As % Of All Taxes
Topsail Beach	29.25	12	41.0%
Surf City	39.32	15.71	40.0%
North Topsail Beach	41	15	36.6%
Average	**35.52**	**14.24**	**39.2%**
Oak Island	27.5	0	0

The absence of an ad valorem contribution to the Oak Island Beach Fund, compared with the level of this contribution in other similar communities, leaves the town unprepared financially to implement any significant shoreline erosion response program.

7.1 Planning and Design Revenue: The Phased or "Go-Slow" Approach

In examining potential adjustments to ad valorem tax rates in the community, PARC considered a range of rate changes from a low of 4 to a high of 16 cents per $100 in property value. PARC considered a town-wide base ad valorem rate increase from 4 to 8 cents per $100 property value with the anticipations of higher rates in Zone 1, Beachfront, and Zone 2, Near Beach, to be implemented in Fiscal Year 17-18.

Ideally, the town would implement a town-wide property tax increase of $.08 per $100 value in the upcoming fiscal year, thus raising the property tax rate from 27.5 cents to 35.5 cents per $100 value. If such a rate were implemented, the town could expect to collect $1,981,200 in new revenue for its Beach Fund. At a collection rate of 97%, this tax increase would yield approximately$1,921,764 for the Beach Fund, a solid financial step toward. Assuming occupancy tax revenue collections reach an average annual rate of approximately $500,000 million annually, the town would approach but still fall short of the minimum target revenue level of setting aside in its Beach Fund approximately $3 million per year.

In the public workshops, there were mixed opinions about whether implementing a town-wide tax increase this year of $.08 per $100 value was workable. Several commenters suggested that a more moderate first step to be taken as a down payment toward the eventual implementation of the town's full funding strategy when the Comprehensive Shoreline Management Plan is completed in the next 18 to 24 months. In response to these concerns, PARC examined lower town-wide property tax increase options which are presented in the table below.

Townwide Tax Rate Increase (Cents/$100)	Potential Revenue	Assumed Collection Rate	Expected Revenue
5	$1,238,250	97%	$1,201,102
6	$1,485,900	97%	$1,441,323
7	$1,733,550	97%	$1,681,543
8	$1,981,200	97%	$1,921,764

At a minimum, PARC believes a town-wide property tax increase of 4.25 cents per $100 value is necessary this fiscal year. At a collection rate of 97%, this rate will yield roughly $1 million annually in new revenue for the Beach Fund, a level of revenue sufficient to pay for continuing development of the town's Comprehensive Shoreline Management Plan, including design and permitting of a future beach nourishment project. Coupled with the occupancy tax revenues growing to $500,000 annually, this minimal rate would yield a total annual contribution of approximately $1.5 million for the Beach Fund.[7]

It must be emphasized that an interim town-wide rate at 4 to 8 cents per $100 value is a down payment and alone would be insufficient to construct a beach nourishment project in 2022, even at five-year return period storm level of protection. The advantage of the "down payment option" is that it would set the town on a path a more secure financial footing for its Comprehensive Shoreline Management Plan while Moffatt & Nichol continues to analyze, design, and permit the first beach project to be implemented in 2022. As the CSMP comes into greater focus and project permits are obtained, the town could then adjust the overall funding strategy, including the implementation of the higher rates for Zones 1 and 2, and prepare for the construction phase to come. This "go slow" option would of course reduce the annual savings rate and could very well force a delay in the construction of a future beach nourishment project.

7.2 Tiered Rate Options: Higher Ad Valorem Rates in Zones 1 and 2

In addition to the town-wide base rate tax adjustment suggested above, PARC also investigated a series of tiered rate options that would impose higher tax rates in Zone 1, Beachfront area, and Zone 2, Near Beach area, as these zones are described previously in the report.

[7] The revenue yield estimates provided in this report are based on a total assessed valuation of approximately $2.472 billion in the town. The revenue estimates do not include any presumed increase in total assessed value over time and are therefore conservative. The next property tax reevaluation in Brunswick County will occur in January 2019.

In each case, the tax rate options are referred to in the following order: Zone 1– Zone 2 and the"Rest of the Town." For example, a 16–10–8 option refers to an ad valorem property tax rate increase of $.16/$100 value in Zone 1, a rate increase of $.10/$100 value in Zone 2, and an $.08/$100 value in the rest of the town, that is, the parcels outside of zones 1 and 2. Procedurally, PARC recommends the town-wide base rate be implemented in the upcoming fiscal year and municipal service districts implemented the following budget year to create the differential rates in zones 1 and 2. The implementation therefore entails a two year budget process and not all revenues would be realized until the municipal service districts are established in budget year 2017 Finally, as mentioned above, the revenue yield from the options examined below is based on a consistent property tax evaluation in the town of $2.472 billion and a 97% collection rate. Any increase or decrease and the value of property In the community what effect the projected revenue yields presented below.

7.2.1: 16-10-8 Option

Under the 16-10-8 Option, the town could expect to realize approximately $2.4 million annually in new revenue to the Beach Fund, as shown in the table below. Coupled with assumed occupancy tax collections growing to $500,000 per year over time, the total contribution to the town's Beach Fund under this option would be approximately $2.9 annually. Were the town too simultaneously shift 1% of the occupancy tax collections from the" tourism related expenditures" account to the beach nourishment fund, an additional $231,882 per year can be expected, based on average collections over the last five fiscal years. This would raise the Beach Fund contribution to approximately $3.13 million annually.

The 16-10-8 Option is worthy of serious consideration by the town Council. This option establishes a sound financial foundation by imposition of the town-wide $.08/$100 value which could begin in the upcoming year. The option also reflects a strong differentiation of contributions among property owners, with a rate twice as high on the beachfront when compared to those who own property outside of zones 1 and 2.

16-10-8 Option, Ad Valorem Revenues Only

Zone	Property Value	Rate (Cents/ $100)	Potential Revenue	Collected Revenue (97%)
Zone 1 - Beachfront	$509,939,370	16	$815,903	$791,426
Zone 2 - Nearbeach	$474,652,877	10	$474,653	$460,413
Rest of Town	$1,491,907,264	8	$1,193,526	$1,157,720
Total Prop Value	**$2,476,499,511**	**Total Revenue**	**$2,484,082**	**$2,409,559**

The table above illustrates the expected gross revenue the town could reasonably expect realize if the plan were implemented beginning in the upcoming budget year and leading up to a project construction start date in calendar year 2022. The net revenues in the Beach Fund over this period of time cannot be accurately estimated because the cost of the design and permitting of the 2022 project, which will be paid from the Beach fund, have not been determined.

16-10-8 Option, Including Occupancy Tax Revenues

		Collections @100%			Avg. Occupancy Tax Revenue (2% Growth)	All Revenue Total	Ad Valorem Revenue Total
FY	Revenue Year	Zone 1	Zone 2	Rest of Town			
15-16	0	$-	$-	$-	$463,762	$463,762	$0
16-17	1 (8 cents)	$407,951	$379,722	$1,193,526	$473,037	$2,454,236	$1,981,199
17-18	2 (MSDs begin)	$815,903	$474,653	$1,193,526	$482,498	$2,966,580	$2,484,082
18-19	3	$815,903	$474,653	$1,193,526	$492,148	$2,976,230	$2,484,082
19-20	4	$815,903	$474,653	$1,193,526	$501,991	$2,986,073	$2,484,082
20-21	5	$815,903	$474,653	$1,193,526	$512,031	$2,996,113	$2,484,082
21-22	6	$815,903	$474,653	$1,193,526	$522,271	$3,006,353	$2,484,082
	TOTAL	**$4,487,466**	**$2,752,987**	**$7,161,155**	**$3,447,738**	**$17,849,347**	**$14,401,609**
% of Local Funds		25.1%	15.4%	40.1%	19.3%		

The 16-10-8 Option results in a rather surprising distribution of contributions among the revenue streams. As a percent of local funds, Zones 1 and 2 under this option would contribute 40.5% of all revenues collected, with Zone 1 contributing 25.1% of the total and Zone 2 contributing 15.4%. The rest of the town would contribute 40.1%, slightly less than

the contribution from the two beachfront zones. If the occupancy tax revenue stream grow at a rate of 2% per year, beginning with the five-year average revenue level, this revenue stream would account for 19.3% of the total revenue collected under this option.

7.2.2: 14-10-8 Option

Under a 14-10-8 Option, the Zone 1, beachfront area, ad valorem tax rate would be decreased from 16 to 14 cents per $100 value, slightly closing the differential between the zones. This option is instructive because it illustrates that a decrease in the property tax rate in Zone 1 by 2 cents would decrease the collected revenue by $98,928 annually when compared to the 16-10-8 Option.

The 14-10-8 Option would not generate sufficient revenue to meet the minimum recommended contribution to the beach find of $3 million dollars annually. When coupled with the occupancy tax revenue stream growing to $500,000 per year. over time, this option would generate approximately $2.81 million annually.

14-10-8 Option, Ad Valorem Revenue Only

Zone	Prop Value	Rate (Cents/ $100)	Potential Revenue	Collected Revenue (97%)
Zone 1 - Beachfront	$509,939,370	14	$713,915.12	$692,497.66
Zone 2 - Nearbeach	$474,652,877	10	$474,652.88	$460,413.29
Rest of Town	$1,491,907,264	8	$1,193,525.81	$1,157,720.04
Total Prop Value	**$2,476,499,511**	**Total Revenue**	**$2,382,093.81**	**$2,310,630.99**

7.2.3: 12-10-8 Option

Under a 12-10-8 Option, the ad valorem contributions to the town's Beach Fund would be more evenly distributed across the community. The tax rate differential between the Zone 1, beachfront area, and the "rest of the town" would only be four cents per $100 value. Again, the reduction in the beachfront zone tax rate by two cents per $100 value would decrease the ad valorem revenues collected by $98,928.

The 12-10-8 Option would yield an annual ad valorem contribution to the Beach Fund of approximately $2.21 million, and when coupled with a occupancy tax revenues growing to $500,000 annually over time. he town's Beach Fund, under this option, would reach $2.71 million, short of the minimum annual goal of $3 million.

12-10-8 Option, Ad Valorem Revenue Only

Zone	Prop Value	Rate (Cents/ $100)	Potential Revenue	Collected Revenue (97%)
Zone 1 - Beachfront	$509,939,370	12	$611,927.24	$593,569.43
Zone 2 - Nearbeach	$474,652,877	10	$474,652.88	$460,413.29
Rest of Town	$1,491,907,264	8	$1,193,525.81	$1,157,720.04
Total Prop Value	**$2,476,499,511**	**Total Revenue**	**$2,280,105.93**	**$2,211,702.75**

In each of the three options evaluated above, the base property tax increase town-wide is eight cents per $100 value, which PARC recommends be implemented in the upcoming budget year. In response to public input during the workshop process, PARC also evaluated lesser options with a town-wide base rate increase limited to four cents per $100 value. This 12-8-4 Option is examined next.

7.2.4: 12-8-4 Option

Under a 12-8-4 Option, the town would, over two budget years, increase the property tax rate in Zone 1, Beachfront, by 12 cents per $100 value resulting in a municipal rate adjustment from the current 27.5 cents to 39.5 cents per $100 value. In Zone 2, Near Beach, the tax rate would be increased by 8 cents per $100 value from 27.5 to 35.5 cents per $100 value. Finally, the property tax for all other parcels outside of Zones 1 and 2 , which would be implemented in the upcoming budget year, would increase by 4 cents per $100 value or from 27.5 to 31.5 cents per $100 value.

This rate structure establishes a clear higher tier in Zone 1, Beachfront, and in Zone 2, Near Beach. A beach fronting property owner in Zone 1 would pay three times the rate of an owner north of Oak Island Drive, for example. Similarly, an owner in Zone 2, the near beach area, would pay double that of an owner outside of Zones 1 and 2.

12-8-4 Option, Ad Valorem Revenue Only

Zone	Prop Value	Rate (Cents/ $100)	Potential Revenue	Collected Revenue (97%)
Zone 1 - Beachfront	$509,939,370	12	$611,927.24	$593,569.43
Zone 2 - Nearbeach	$474,652,877	8	$379,722.30	$368,330.63
Rest of the Town	$1,491,907,264	4	$596,762.91	$578,860.02
Total Prop Value	**$2,476,499,511**	**Total Revenue**	**$1,588,412.45**	**$1,540,760.08**

In terms of the distribution of costs over a sample five year collection period, the 12-8-4 Option produces a reasonable allocation of costs across the community, with Zones 1 and 2 accounting for 35% of the total revenue generated while the rest of the town's tax payers would contribute 22% of the total. The remainder of the Beach Fund revenues under this plan — 42% of the total — would be collected through occupancy taxes. The following Table shows the distribution of new revenue collected from all sources over a six year period, assuming occupancy tax revenues increase by 2% per year on average.

Over the six year period examined, the 12-8-4 Option, when occupancy taxes are included, still falls short of the recommended revenue target of $3 million per year, reaching a peak I have to $2.2 million in year six. This option is therefore deficient. However, if the town work to shift 1% of the occupancy tax revenue stream ($231,882 based on five-year average) from tourism related expenditures to the beach nourishment account, the annual revenues under this option would reach approximately $2.43 million per year.

The 12-8-4 Option is reasonably well balanced among the contributor groups. one 1, Beachfront, would contribute 25.6% of all revenues, Zone 2, Near Beach, would contribute 19.3% of the total. Taken together, these two MSD zones would contribute 44.9% of all revenues, while the "Rest of the Town" would contribute 28.1% of the total. The remaining 27% would be generated by the occupancy tax revenue stream, assuming these revenues reflect the average level of the past five years and grow annually at 2% per year. If these option were implemented, the town would collect approximately $12.76 million over the six year period ending in fiscal year 2021-2022. As in previous scenarios, this revenue option is improved if the town were to shift an additional 1% in occupancy tax revenue

from the "Tourism" to the "Beach Fund" category. Even with this enhancement, third party revenues would be essential.

12-8-4 Option, Including Occupancy Tax Revenues							
FY	Revenue Year	Zone 1 - 12 cents	Zone 2 - 8 cents	Rest of Town 4 cents	Avg. Occupancy Tax Revenue (2% Growth)	All Revenue Total	Ad Valorem Revenue Total
15-16	0.0%	$-	$-	$-	$463,762	$463,762	$0
16-17	1 (4 cents)	$203,976	$189,861	$596,763	$473,037	$1,463,637	$990,600
17-18	2 (MSDs begin)	$611,927	$379,722	$596,763	$482,498	$2,070,910	$1,588,412
18-19	3	$611,927	$474,653	$596,763	$492,148	$2,175,491	$1,683,343
19-20	4	$611,927	$474,653	$596,763	$501,991	$2,185,334	$1,683,343
20-21	5	$611,927	$474,653	$596,763	$512,031	$2,195,374	$1,683,343
21-22	6	$611,927	$474,653	$596,763	$522,271	$2,205,614	$1,683,343
	TOTAL	$3,263,611	$2,468,195	$3,580,578	$3,447,738	$12,760,122	$9,312,384
% of Local Funds		25.6%	19.3%	28.1%	27.0%		

For comparison, the table below summarizes the new ad valorem revenue that could be expected from each of the tiered property rate options presented above.

Option Beginning FY 2017-18	Estimated New Annual Revenue 97% Collection
16-10-8 Option	$2,409,559
14-10-8 Option	$2,310,631
12-10-8 Option	$2,211,703
12-8-4 Option	$1,588,412

8.0 SUPPLEMENTAL REVENUE OPTIONS

During the six public workshops, PARC worked with the community to you identify and explore other potential supplemental revenue options. Through the workshops, beach project funding website, e-mails, and in many telephone conversations, ideas to generate new revenues beyond occupancy taxes and new ad valorem taxes were offered.

Of the ideas discussed, the two most critical but also the two most unpredictable were potential new revenues from the state and the county. PARC and the public recognize that while it is not within the town's power to mandate that either the state or county contribute to the cost of implementing the CSMP, it is critical that the town's leadership and the community at large work together to advocate to secure funding assistance from the county and the state. It is not possible at this time to predict what level of revenue that may be forthcoming or the timing of any such contributions. Nonetheless, the town should make it a high priority to seek predictable, long-term funding assistance from the county and the state.

PARC also recommends that the town work with the county to reopen discussions regarding the one quarter percent increase in the local sales tax rate. While this initiative was previously considered and rejected by the voters, the matter should be revisited once the town takes local action to increase revenues to its Beach Fund.

Supplemental Fund Source	Estimated Potential Annual Revenue	Action Required
State of North Carolina	Unknown	New Legislation
Brunswick County	Unknown	Commissioner Vote
.25% Sales Tax Increase	$3 million Countywide	Voter Referendum
Reallocate Local 1% Occupancy Tax	$450,000.00	City Council Action
Paid Parking System	Unknown	City Council Action
Beach Badge or Entry Fee	None	Prohibited in North Carolina
Rental Property Surcharge	None	Prohibited in January 2015 as "Business License" Fee

The Brunswick County beaches are undoubtedly the single largest tourist attraction in the county including, of course, the extensive beaches in Oak Island. During the peak of the summer season, as many as 40,000 people vacation in the community. The beach may not be the only reason tens of thousands of people come to Oak Island each summer but there is little question it is the primary reason for many. These visitors can and should contribute to the cost of sustaining the town's beach, the attraction they are drawn to, use and enjoy. An increase in the sales tax is one way that these visitors can contribute to sustaining the beaches in Oak Island. If this matter can be reopened, the town should also re-examine the formula by which sales taxes are distributed within the county. Per capita distribution methodologies are disadvantageous to seasonal tourism communities like Oak Island that have relatively small year-round populations but explosive populations during the peak tourism season. A more fair allocation methodology for sales taxes should be explored and should include consideration of the community's assessed value. Such allocation methodologies have been developed in other coastal counties in North Carolina.

As previously discussed, the town should reallocate 1% of the town's 5% occupancy tax revenue from "tourism related expenditures" to the Beach Fund account, a change that would increase the Beach Fund by approximately $450,000 annually.

At the request of the public, PARC investigated implementation of a beach access user fee similar to the beach badge system commonly employed in New Jersey and the imposition of a special surcharge on rental properties in Oak Island. In both cases, PARC concluded that these funding mechanisms were impermissible under current state law. No beach communities in North Carolina currently impose a beach user fee whether by beach badges, wristbands or any other means. With respect to the imposition of a rental property surcharge, it is PARC's view that such a surcharge would be considered a local "business license fee," which have been outlawed in North Carolina since January 2015.

Finally, there is the matter of implementing a paid parking system in Oak Island to raise revenue for the Beach Fund. This topic was considerable interest during the public workshops and also on the online discussion forum, reflecting a wide range of opinions. There are three principal concerns with the imposition of a paid parking program. First,

local residents and property owners who are being asked to contribute to the Beach Fund through ad valorem taxes do not believe it is fair to also require that they pay for parking to access the beach. PARC agrees with this concern and any new paid parking system should exempt Oak Island residents and property owners. Rather, the existing system $5 annual decal system should be retained for residents and owners.

Second, many commenters were concerned that a paid parking program would be restricted to the existing beach access parking lots and therefore provide minimal revenue to the town. PARC agrees with this concern as well and believes that a new paid parking program should apply to any cars parking in zones 1 and 2 as previously defined, including on street parking.

Third, many commenters were concerned that the cost of parking meters, kiosks and enforcement would consume the parking revenue generated, rendering the effort a breakeven proposition. PARC shares this concern as well and so we investigated companies providing new smart phone based paid parking systems, a rapidly developing area of technology. While our investigation of potential phone-based parking systems was not extensive, we did interview at length the company out of Charlotte, North Carolina called Passport (www.passportinc.com). This firm is a leading provider in the new phone based parking systems and their services are under consideration in several beach towns such as South Padre Island, Texas. Smart phone based parking systems are flexible, have relatively low implementation costs, require little equipment and infrastructure, other than signage, and are suitable for a pilot program application.

PARC is not endorsing any particular company or provider and recognizes that the matter has been considered previously by the community and was not favorably received. In light of the new smart phone-based technology however, it is PARC's opinion that a paid parking system should be reconsidered through a study committee appointed by the town. Under such a system, Oak Island residents and property owners should be exempt and the paid parking area should potentially include all areas within zones 1 and 2 as previously defined.

Undoubtedly, the study committee, if formed, would encounter a number of complex issues to be evaluated such as how to integrate such a system into the short term rental market,

whether cash boxes or some alternative payment method would be necessary for those who do not have a smart phone, and how the system would be monitored and enforced. Representatives of Passport expressed an interest in meeting with the study committee should this option be considered.

Potential revenue from a paid parking system cannot be estimated at this time as the number of variables involved are considerable, including the parking rates, the areas where the paid parking would apply, whether they are seasonal differences in rates, discounts for renters, and the cost of implementation and enforcement. As a threshold, Park recommends that pay parking system only be considered if it will generate net revenue of at least of $250,000 annually, a revenue level comparable to about a 1 cent increase in property taxes town-wide.

9.0 PARC RECOMMENDATION

In spite of the significant uncertainties in the project design and the timing of any future beach nourishment project, PARC recommends that the town:

1. Increase the dedicated ad valorem tax contribution to the Beach Fund effective in Fiscal Year 2016-2017 by adopting an increase in the property tax rate town-wide by 8 cents/$100 value, or alternatively at least 4.25 cents/$100 value;

2. Implement higher property taxes in Zones 1 and 2 beginning in fiscal year 2017-2018 at a minimum of at least the 12-8-4 Option level. Ideally, the tiered property tax rate structure would reach the12-10-8 Option level;

3. Reallocate a full 1 % of current occupancy tax revenues from the tourism related expenditures account to the Beach Fund account, bringing the annual beachfront contribution to 3% of the 5% collected each year;

4. Continue to use a dedicated Beach Fund and limit the allowed expenditures from the fund to those directly related to the design, permitting, construction and monitoring of beach projects, with a reasonable set aside for annual beach operation and maintenance expenditures;

5. Undertake deliberate efforts to seek county and state contributions to implement the town's Comprehensive Shoreline Management Plan; and

6. By the end calendar year 2016, investigate and develop a paid parking program suitable to the specific needs of the town with implementation within six months.

10.0 CONCLUSION

It is beyond doubt that imposing new taxes for capitol expenditures, no matter how worthy the cause, is a difficult decision for any community. While the wisdom of beach nourishment projects can and will be forever debated, it is nonetheless true that the town's beaches are eroding and can be expected to erode in the future.

The beach is an important part of the town's seasonal economy and quantifying the economic impact is difficult, however, it is clear that the value and importance of town's beaches extends widely and the whole community has a stake in the condition of the shoreline.

It is one of the truisms of life that a penny saved is a penny earned. The time value of money has often proved to be one of the great benefits for savers and a great bane for borrows. For every year that the town delays saving to finalize and implement its Comprehensive Shoreline Management Plan, the annual cost to property owners will only increase. There are those who hold out the hope that future beach restoration projects will somehow be avoided or prove to be unnecessary. But, alas Mother Nature is a relentless foe and barrier islands all over the world are very dynamic and unique environments. What makes them so special -- these barrier island shores -- is that they are ever-changing places where powerful forces are on display. For those fortunate enough to own property and to recreate in these places of paradise, there comes a special challenge.

In keeping with the years of persistent planning and effort that has, to the surprise of many, continued through robust community discussion, debate and disagreement, PARC strongly recommends that the town act now to substantially increase the revenues in its dedicated

Beach Fund in preparation for implementing the most cost-effective shoreline management projects it can identify.

Oak Island Beach Funding Plan
Workshop Attendance Rosters

PUBLIC PARTICIPATION STATISTICS

Workshop	In Person Participants	On-Line Participants	Total
Workshop 1	65	21	86
Workshop 2	60	30	90
Workshop 3	78	21	99
TOTAL	203	72	275

- Phone Calls and E-mails to PARC: 137
- Written On-Line Public Forum Comments: 93
- Number of Unique On-Line Commenters: 52
- On-Line Discussion Topics: revenue suggestions, sea turtle concerns, day-trippers, affordability, third party revenue, development line, paid parking, tax zones, beach badges, condition of beach and dunes, erosion rates, overall costs, project timing, capacity to implement, and much more

MARCH 17, 6:00 - 8:00 PM: Workshop 1A In-Person Attendees

Wolfgang Furstenau
Bob Carpentar
Jerri Taylor
Terry Taylor
Ken Greenman
Naney Greenman
Kelley Germaine
Bob Germaine
Jack Machel
Malcholm Morrison
Vicki Meyers
Jim Meyers
Rosanne Fortner
Cande Genier
Donald Cannady
Cheryl Gardner
John Portaluppi
Henry Moon
Linda Moon
Bill Knott
Lee Butzin
Diane Butzin
Steve Foster
Donna Atherton
Jane Lawson
Mimi Bach
John Bach
Mike Hussal
Claudette Hussal
Mike Benton
Barbara Benton
Tom Reebel
Barb Reebel
Stan Shelton
Steve Antal
Lynnne Kracht
Fred Anton
Barb Anton
Gelnda Carter
Robert Carter
J. Henry
P.H. Broome
J. Henrietta
Bob Jakes

MARCH 17, 6:00 - 8:00 PM: Workshop 1A Online Attendees

Tom Difatta
Joe Burde
Ken Guhse
Keith Kasberg
Park Nelson
Julie Tate
Julie Parlon
Bob Whitwam
Marion Wilson
Barbara Cassell
Phillip Lewis

MARCH 19, 1:00 - 3:00 PM: Workshop 1B In-Person Attendees

Charlie Blalock
Sally Elmo
Martin Hawkins
David Grizzle
Becky Grizzle
Kim Trac
Christina Crocker
Dewey Housar
William Caviniss
Gene Stokes
Marv Baker
Laurie Baker
Lynn McDowell
Joanne Anderson
Lorin Anderson
Jon Batt
Sherri Medley
Robert Butt
Patricia Butt
Barbara Aras
Judy Reynolds
Laura Julledge
David G. McLeod
Carol R. Purvis
Ken Guhse
Steve Edwards
Daniel Hendrickson
Eric Nathan
Phillip Lake
Hal Bolin
Ted Bodenshatz
Art Seihart
Linda Seihart

MARCH 19, 1:00 - 3:00 PM: Workshop 1B Online Attendees

Phillip Lewis
Wells Martin
Lisa Morelli
Paula Smith
Tommy Williams

APRIL 21, 6:00 - 8:00 PM: Workshop 2A In-Person Attendees

Mr. & Mrs. Corcoran
Jeanne & Jim
Simpson
Mr. & Mrs. Terry
Taylor
G.A. Bell
Jacobson
Bob Carpenter
Karen Bolton
Ray Bolton
Phil Beaman
Frankie Beaman
Karen Linn
Stan Shelton
Pat Bruning
Lee Butzin
John Henderson
Jane Henderson
Malcom Morrison
George Yu
Deanie Hurst
Gary Hurst
Jack Michel
Bettie Thorne
Jean Beadle
Shari Golob
Nancy Greenman
Ken Greenman
David Frank
Jenny Cruise
Kedar Bryan
Judy Gregson

APRIL 21, 6:00 - 8:00 PM: Workshop 2A Online Attendees

Eldean Altland
Karen Frisk
Chris Johnson

Susan Lambeth
Gerald Ottman
Julie Parlon
Doyle Shelton
Andy Youngs
William Dixon
Byron Bagaasen
Joseph Contento
Dan Cyr
Sandy Doughty
Coyte Drum, Sr
Theresa Lee
Marty Greene
Richard Smith
Melesia Walden

APRIL 23, 1:00 - 3:00 PM: Workshop 2B In-Person Attendees

Diane Deering
Cynthia Foley
Keith Kasberg
JoAnne Anderson
Lorin Anderson
Madge Bolin
Stan Meihaus
Kim Huck
Sandra Brown
John Capobianco
Richard Wimbish
Edward Dezeniecki
Carol Purvis
Art Seifert
Linda Seifert
Eric Nathan
Darlene Portaluppi
Judy Reynolds
Tom Keith
Mr & Mrs. Robert S. Williams
Keith Pitts
Jene Forman
Robert & Debby Whitener
Mary P. Templeton
Patricia Butt
Robert Butt
David Grizzle
Becky Grizzle
Rep. Frank Iler
Mac Mayer
Ken Guhse
Mike Huck
Gaby T. Miller
Leslie Johnson
Randy Johnson
Robert Vove
Jim Shire
Jay M. Railey
Cheri Holbrook

APRIL 23, 1:00 - 3:00 PM: Workshop 2B Online Attendees

Laura Chesnut
W. Bruce Cottle
Tom Difatta
Rosanne Fortner
Bill Hancock
Margaret Masters
Rodney Stewart
John Swanson
Judy Bullard
Mark Carter
Jim Carter
David Lehr
Brian Rigney

MAY 19, 6:00 - 8:00 PM: Workshop 3A In-Person Attendees

Brenda Baxley
Jeff Neubert
Carol Neubert
Mary C. Shock
Lynn McDowell
Pat Vann
Tommy Vann
Carol Painter
Eric Nathan
Linda Seifant
Art Seifart
John Scott McMurray
Nancy McMurray
Ruth Somers
Jim Somers
Phillip Rollins
Michael Onel Baylay
Cathy Boeltcher
Paul Boeltcher
Stan Shelton
Mary Ann Brewer
Ron Weiss
PJ Jones
Suzan Jones
Phil Beaman
Robert Butt
Patricia Butt
Bill McCall
Carol McCall
Bob Carpenter

Bettie Thorne
Peter McGrath
Marshall Reed
Barb Aut
Fed Aut
Art Detsour
Henson Frost
Dan Corcoran
John Portaluppi
Dalene Portaluppi
Karen Linn
Bob Jakins
Malcolm Morrison

MAY 19, 6:00 - 8:00 PM: Workshop 3A Online Attendees

Eldean Atland
Chester Banach
Mary Boose
Tom Difatta
Robin Davis
David English
Elaine English
Ken Guhse
Ken Hobbs
Elizabeth Miles
Julie Parlon
Lin Riley
Terry Taylor
Sylvia Riley

MAY 21, 1:00 - 3:00 PM: Workshop 3B In-Person Attendees

Martyn Hawkins
Janyce Divers
Keith Pitts
Darrll Eun
Sharon Cooper
Diane Baldwin
Robert A. Short
Mary Templeton
Farley Rosali Charles
Anne Padgett
Rosanne Fortner
Leslie Johnson
Randy Johnson
Shawn Herndon
Mark A. Relley
Eliott Secrest
Melody Secrest
Marilyn Emery
Pamela Galdden
Ray Gladden
Malcom Morrison
Jane J Grant
Bill Caviss
Betty Kupp
Steve Futz
Larry Moore
Larry C. Cashwell
Linda O'Conner
Sheryl Cross
Phillip Cross
Jim Fox
Sue Fort
George Yu
Warren Vassar
Richard Wimbish
Gene Stokes
Mike Lester

MAY 21, 1:00 - 3:00 PM: Workshop 3B Online Attendees

Merl Baldwin
Sarita Bethea
Sandra Brown
Elaine English
Richard Fortner
Keith Klasberg
Jane Lawson
Pam Miller