

***FINAL REPORT***  
**TO THE**  
**VILLAGE OF BALD HEAD ISLAND,**  
**NORTH CAROLINA**



**Recommendation for the Creation of**  
**Municipal Service Districts and Other Measures**  
**For Funding**  
**The Bald Head Island**  
**Integrated Shoreline Project**



**Respectfully Submitted**  
**By:**

**Peter A. Ravella, President**  
**PAR Consulting, LLC**

**December 12, 2008**

**FINAL REPORT:**  
**BALD HEAD ISLAND FINANCING PLAN**  
**FOR THE**  
**INTEGRATED SHORELINE PROJECT**

**Purpose:** This report provides an explanation and justification in support of action by the Village of Bald Head Island Council to create and implement two new Municipal Service Districts (MSDs) and to undertake such other measures recommended herein to finance the Integrated Shoreline Project (ISP) Plan for Bald Head Island.

The ISP consist of the following project elements, as presented to the community at the last financing workshop on October 28, 2008, and as described in documents prepared by the Village’s engineering consulting firm, Olson Associates, Inc.:

• Engineered Beach (South and West Beach)	\$16,100,000 <sup>1</sup>
• Harbor Groin Rehabilitation (four wood groins)	\$ 315,000 <sup>1</sup>
• BH Creek Dredging	\$ 570,000 <sup>1</sup>
• BH Creek Terminal Groin <sup>2</sup>	\$ 250,000 <sup>1</sup>
• East Beach Dune Projects <sup>3</sup>	\$ 265,000
<b>Total:</b>	<b>\$17,500,000</b>

*1 - Based on Olsen Associates Estimate (August 2008)*  
*2 - CAMA permit required and may be difficult*  
*3 - State-Initiated CAMA permit required, estimated cost: \$40,000/dune project*

**Applicable Statutes.** For convenience, PARC provide below excerpts from the relevant statutes governing creation and implementation of a Municipal Service District(s). PARC offers no legal advice as to the completeness or applicability of these provisions and recommends that the Village consult legal counsel with respect to the implementation of the funding plan provided herein. Other provisions of North Carolina statutes and regulations should be reviewed before the Village makes a final decision on the plan.

**NC General Statutes - Chapter 160A Article 23: Municipal Service Districts.** PARC recommends that the Village of Bald Head Island create two Municipal Services Districts to contribute to funding the Integrated Shoreline Project, as described in more detail below. Section 160A-535 on the NC General Statutes specifically authorizes the city council of any city to define one or more MSDs for the purpose of providing “beach erosion control and hurricane protection works.” All elements of the Integrated Shoreline Project address or are relevant to the provision of “beach erosion control” and/or “hurricane protection.”

**§ 160A-535. Title & Effective Date.** This Article may be cited as "The Municipal Service District Act of 1973," and is enacted pursuant to Article V, Sec. 2(4) of the Constitution of North Carolina, effective July 1, 1973. (1973, c. 655, s. 1.)

**§ 160A-536. Purposes for which districts may be established.**

(a) Purposes. – The city council of any city may define any number of service districts in order to finance, provide, or maintain for the districts one or more of the following services, facilities, or functions in addition to or to a greater extent than those financed, provided or maintained for the entire city:

- (1) Beach erosion control and flood and hurricane protection works

**MSD Adoption Procedure.** The following select provisions outline the procedures by which the Village can create and implement one or more Municipal Services Districts. The Village should consult legal counsel to ensure all relevant statutes and regulations – including those not included below -- are followed in implementing the funding plan recommended herein and in creation of the MSDs.

**§ 160A-537. Definition of service districts.**

(a) Standards. – The city council of any city may by resolution define a service district upon finding that a proposed district is in need of one or more of the services, facilities, or functions listed in G.S. 160A-536 to a demonstrably greater extent than the remainder of the city (emphasis added).

(b) Report. – Before the public hearing required by subsection (c), the city council shall cause to be prepared a report containing:

- (1) A map of the proposed district, showing its proposed boundaries;

*PARC Note 1: A map of the proposed districts is provided herein and larger scale maps are available from the Bald Head Island Planning Division.*

- (2) A statement showing that the proposed district meets the standards set out in subsection (a); and

*PARC Note 2: A statement showing the district meets the standards set forth in subsection (a) is provided below..*

- (3) A plan for providing in the district one or more of the services listed in G.S. 160A-536.

*PARC Note 3: The plan for providing beach erosion control services has been developed and is being continually refined by the Village's beach engineering consultant, Olson Associates Inc. The current report and supporting documents, studies, permit applications, and correspondence are available for inspection in the Village's Planning Department.*

The report shall be available for public inspection in the office of the city clerk for at least four weeks before the date of the public hearing.

(c) Hearing and Notice. – The city council shall hold a public hearing before adopting any resolution defining a new service district under this section. Notice of the hearing shall state the date, hour, and place of the hearing and its subject, and shall include a map of the proposed district and a statement that the report required by subsection (b) is available for public inspection in the office of the city clerk. The notice shall be published at least once not less than one week before the date of the hearing. In addition, it shall be mailed at least four weeks before the date of the hearing by any class of U.S. mail which is fully prepaid to the owners as shown by the county tax records as of the preceding January 1 (and at the address shown thereon) of all property located within the proposed district. The person designated by the council to mail the notice shall certify to the council that the mailing has been completed and his certificate is conclusive in the absence of fraud.

**§ 160A-540. Required provision or maintenance of services.**

(a) New District. – When a city defines a new service district, it shall provide, maintain, or let contracts for the services for which the residents of the district are being taxed within a reasonable time, not to exceed one year, after the effective date of the definition of the district.

*PARC Note 4: The Village has current contracts in effect with Olson Associates Inc. and other professional consulting firms for the investigation, planning, design and/or permitting of the beach erosion control services identified in the Integrated Shoreline Project Plan. While the projects are at different stages of development, the Village intends, upon issuance of permits by the state and based the on-going assessment of conditions particularly relevant to the East Beach dune system, to seek qualified contractors for the construction of the ISP elements. Not all elements will be implemented on an identical schedule but each project element is currently under contract for either study, initial investigation, design or permitting with the Village's consultants.*

**Findings:** Based on project design reports by Olson Associates Inc., and other Village consultants, review of shoreline conditions, analysis of erosion trends, and community discussions during the financial planning process, PARC finds that the proposed Municipal Service Districts -- the Beachfront Zone (Zone A) and the Dune Ridge Zone (Zone B) -- are in need of one or more of “beach erosion control” and/or “hurricane protection” as identified in Section 160A-536 “to a demonstrably greater extent than the remainder of the city.”

The Engineered Beach Project will result in the placement of approximately 2 million cubic yards of beach quality sand on South and West beach, increasing the beach and dune width, improving the overall health of the shoreline, and providing an added level of storm protection to the parcels and structures within Zones A and B along the proposed project reach. The level of

protection is demonstrably greater in the Beachfront Zone (Zone A) and to a lesser but still demonstrable extent within the Dune Ridge Zone (Zone B) when compared to the remainder of the city. The two designated MSD areas are at greater risk of damage from shoreline retreat and storm surge when compared to the remainder of the city due to the proximity of the parcels and structures to the shoreline within the two proposed MSD zones. The level of added protection in the Beachfront Zone (Zone A) is generally greater than that in the Dune Ridge Zone (Zone B) because the parcels and structures in Zone B are further landward and thus at less risk of damage from storms and storm surge.

The rehabilitation of the four wooden Harbor Groins, dredging of Bald Head Creek, design, permitting and construction of a terminal groin, and restoration of dunes on East Beach East Beach demonstrably contribute to the capacity of these segments of the Bald Head Island shoreline to resist storm impacts. In particular, the groin rehabilitation will repair dilapidated groins which, when operable, retain shoreline sand and help reduce the rate of erosion on the Harbor area shoreline. The design, permitting and construction of a terminal groin immediately south of the Bald Head Creek mouth will reduce sand losses along the Harbor Area shoreline, help stabilize the beach, and reduce the risk of shoreline erosion damage to upland structures in Zone A north of the marina entrance. Dredging of Bald Head Creek will increase the drainage capacity of the creek and result in the availability of approximately 50,000 cubic yards of beach quality sand for deposition of West Beach, gain reducing the risk of damage to upland properties in Zone A along the West Beach shoreline segment. Finally, the planning and preparation for restoration and maintenance of dunes along East Beach, when warranted following storm events, will reduce the risk of damage to parcels and structures along the East Beach shoreline (designated as Zone B).

Taken as a whole, the implementation of the Integrated Shoreline Project will improve the condition of the Bald Head Island Shoreline and reduce the risk of damage to parcels and structures within the Beachfront and Dune Ridge zones, as required by NC General Statutes §160A-537(a).

**Revenue Sources and Needs:** The financial planning process was undertaken with the specific intent of identifying revenue sources to meet the Village's shoreline management needs. Initially focused exclusively in the Engineered Beach Project, the financial planning process evolved to include other elements and with it other approaches to financing the ISP.

The most significant single accomplishment of the process was the preparation and submission of the state-funding grant to the NC Water Resources Department, yielding a favorable – but preliminary – award of \$5.313 million in state grant funds to the Village. With the addition of these funds, the annual required local revenue needed to support the ISP is estimated to be \$2.2 million per year during the five-year ISP financing period.

It is expected that the Village will borrow the funds for the ISP, which will be repaid over five years. In addition to the state grant revenues, the financing plan rests upon the utilization and dedication of:

- (a) A portion of future Village Accommodation Tax Revenues collected over the five year financing period,
- (b) A portion of the current Beach Reserve Fund balance, and
- (c) Property taxes collected through the creation of the Municipal Service Districts (MSDs) described herein.

The Integrated Shoreline Project Funding Plan is based on the following combination of revenue sources:

Revenue Partners	Project Cost: \$17.5 million
State of N.C. Grant	\$ 5,313,000
Village Beach Reserve Fund	\$ 2,000,000
Village Accommodation Taxes (5 yr total)	\$ 2,509,946
Owner Property Taxes (5 yr total)	<u>\$ 7,667,054</u>
<b>TOTAL</b>	<b>\$17,500,000</b>
<b>Annual Project Cost over 5 years @ 3.4% interest rate</b>	<b>\$ 2,200,000</b>

To reach the goal of generating \$2.2 million in annual revenues to support the ISP over the five year financing period, future accommodation tax and property tax revenues will be used as shown in the table below.

The estimated annual Accommodation Tax revenues set aside to support the ISP (\$501,989 per year) was based on an analysis of past and future projected revenues over the next six years, as estimated by the Village’s financial review committee. As directed by the Village during the planning process, the Beach Reserve Fund – into which the Accommodation Tax revenues are deposited – cannot be dedicated 100% to the capitol costs of the ISP, as the fund is used for other beach-related expenditures.

During the five-year financing period -- and if projected accommodation revenues are accurate -- at least \$250,000 will be retained in the Beach Reserve Fund in Year 1, increasing to an annual fund reserve balance of \$366,000 in the Year 5. This reserve balance will be available to address other beach expenses.

Annual Revenue Streams – Five Years	Estimated Revenue
Annual Village Accommodation Taxes (Avg.)	\$ 501,989
Annual Owner Property Taxes	<u>\$1,689,011</u>
Annual Revenue Needed & Produced	<b>\$2,200,000</b>

**Overview of Property Tax Zones and Rates:** Obviously, the fundamental question explored during the financial planning process – and one of greatest interest to the community – was the means and methods that would be used to generate the necessary property taxes to support the elements of the Integrated Shoreline Project.

A variety of *ad valorem* assessment rates and zones were explored during the financial planning process, including the implementation of a flat rate tax on all properties (\$8.9 cents per \$100.00 assessed value), two-zone tax rates, with beachfront and near-beachfront properties paying a higher rate than “interior” lots, and a three-zone approach, distinguishing between a beachfront property zone (Zone A), what has come to be known as the “dune ridge” zone (Zone B), and the interior island zone (Zone C).

An online survey was conducted for 14 days during the financial planning process but produced no definitive consensus. The complete results of the survey are included herein as Attachment 1. Opinions were almost evenly divided among the respondents for the two-zone MSD zone option (34 results) versus a three-zone approach (33 votes). Twenty-six respondents suggested some other form of MSD zone boundaries and others questioned the need for any action to respond to shoreline erosion.

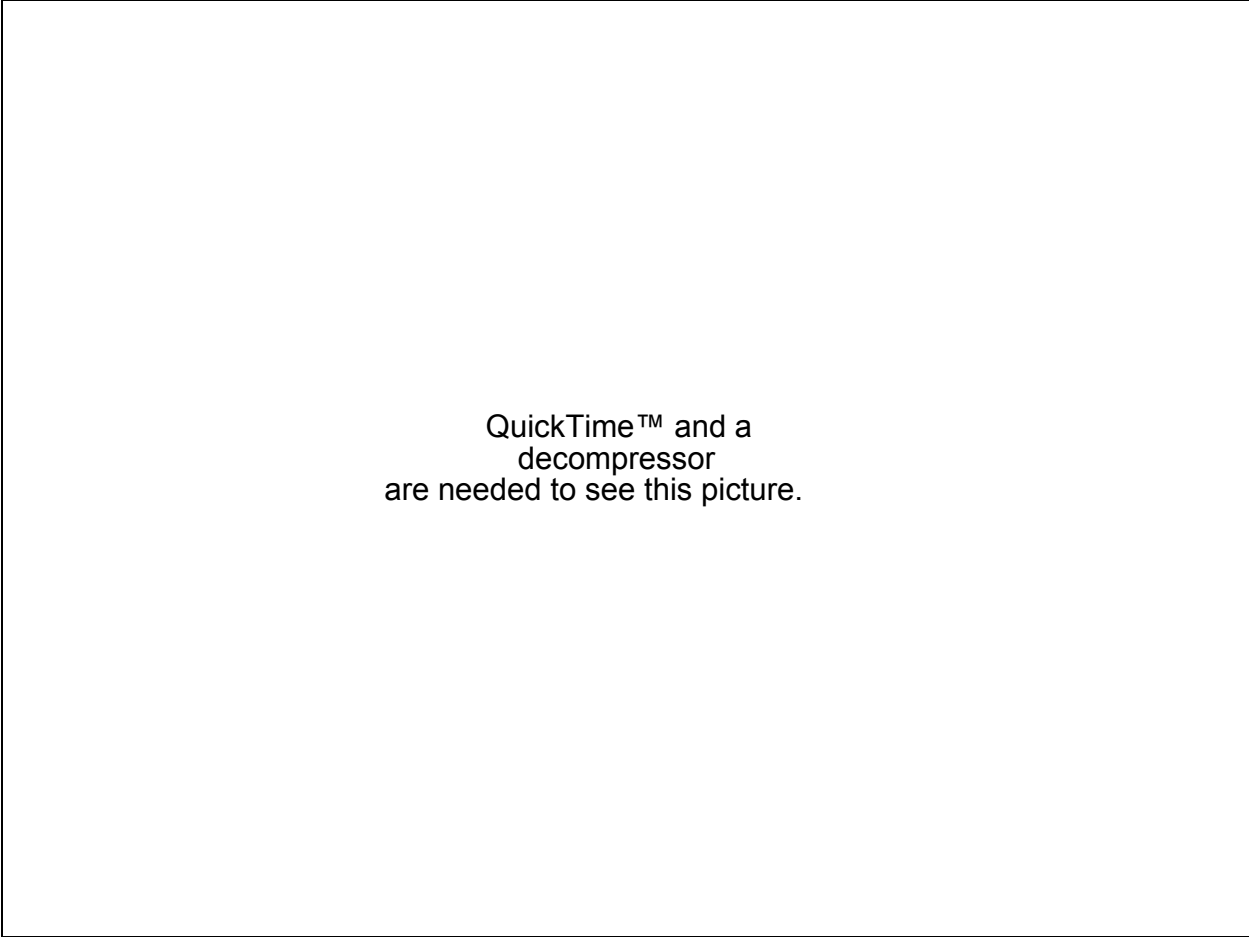
In all, 93 Bald Head Island residences participated in the survey, a sample size representing less than 5% of the parcels on the island. Because of the poor response and the lack of consensus in the responses, the survey was not a significant factor in the final recommendation made by PARC.

In developing the specific tax zone boundaries, other MSD boundary options were examined during the planning process including:

- (1) the use of the Village’s 1995 beach project assessments boundary zones;
- (2) the use of the FEMA Flood Velocity Zone (as called the VE Zone); and
- (3) the use of the DENR Inlet Hazard Area boundaries. A single flat rate zone was briefly explored and rejected.

Each of these three alternatives was rejected because of changed circumstances or questions about the appropriateness of using data and boundaries developed by outside entities for purposes different than defining tax zones.

Though marked “Draft,” the map below reflects the final recommended tax zones for the ISP Financing Plan.



QuickTime™ and a  
decompressor  
are needed to see this picture.

**The Special Case of East Beach.** During the planning process, considerable attention was paid to East Beach in the later stages of the process, primarily due to the erosion episodes that occurred as the plan was being developed. East Beachers were concerned that the ISP did not originally include any planned restoration or stabilization activities on their shoreline, even though they were required to share in the cost of other project elements on other parts of the island. In response to the erosion on East Beach, the Village undertook a dune enhancement project at an estimated cost of \$37,000. Appreciative East Beachers asked that the ISP Financing Plan be expanded to include similar revenues to address future erosion events on their shoreline, should the storms and conditions occur again. PARC believes this was a prudent suggestion and has included \$265,000 in the financing plan to address this problem. In addition, the Village has

directed its consultant, Olson Associates Inc., to include in future shoreline studies a comprehensive investigation of East Beach conditions, another prudent step.

As reflected on the map above, PARC recommends that East Beach be included in Zone B, rather than Zone A. The rationale is two-fold. First, the threat of erosion on East Beach is less than to any other shoreline on the island. In general, less risk ought to mean less demand for “erosion response services” and therefore a lower *ad valorem* rate on this shoreline. Second, the recommended Financing Plan includes only \$265,000 for East Beach dune restoration activities compared, for example, to \$16.1 million project for South and West Beach and \$1.135 million in the harbor area. The lesser investment in East Beach justifies imposition of a lower tax burden along this shoreline.

**PARC Recommendation:** PARC recommends that the Council establish two Municipal Services Districts (MSDs) with the following attributes:

1. Establishing a uniform, island-wide *ad valorem* tax rate designated the “base rate” for all eligible parcels of 8¢ per \$100.00 assessed value (8 mills);
2. Establish an MSD Zone, designated the dune ridge zone, as depicted on the enclosed map and impose an additional *ad valorem* tax rate over and above the base rate of 2¢ per \$100.00 assessed value (2 mills) for a net tax rate within this zone of 10¢ per \$100.00 value (a 10 mill rate); and
3. Establish an MSD Zone, designated the beachfront zone, as depicted on the enclosed map and impose an additional *ad valorem* tax rate over and above the base rate of 4¢ per \$100.00 assessed value (4 mills) for a net tax rate of 12¢ per \$100.00 within this zone value (a 12 mill rate).
4. Collect the *ad valorem* taxes for a period of five years with a clear expiration of the tax rate at the conclusion of that time, retaining, however, the discretion to reinstate or continue the rates if conditions warrant.
5. Clearly and unambiguously dedicate the *ad valorem* revenues exclusively to implementation of the ISP so property owners have confidence that these funds will not be shifted to other needs.

**Projected *ad valorem* Revenue:** If the above recommended zones and rates are established, the MSDs, in combination with Accommodation Tax receipts dedicated to the project, would generate the following annual revenue is estimated to be generated for the Integrated Shoreline Project:

<b>PROJECTED ANNUAL AD VALOREM &amp; ACCOMMODATION TAX REVENUE</b>			
<b>Zone</b>	<b>Assessed Value</b>	<b>Ad Valorem Rate per \$100 Assessed Value</b>	<b>Estimated Annual Revenue Generated</b>
Island-wide Tax Rate (not an MSD)	1,956,053,530	8¢ (base Rate)	\$1,533,546
MSD Zone B – Dune Ridge & East Beach	\$476,360,740	10¢ (Base Rate + 2¢)	\$140,050
MSD Zone A - Beachfront	\$402,228,370	12¢ (Base Rate + 4¢)	\$157,674
Annual Dedicated Accommodation Taxes	N/A	N/A	\$501,989
<b>TOTAL:</b>			<b>\$2,333,259</b>

**Special Considerations:** During the financial planning workshops, considerable discussion was paid to the long-term implications of the shoreline conditions on the island and the need to develop a new erosion response strategy that would lessen the need for another owner-financed response to what is a long-term geologic problem of shoreline change on Bald Head Island. Quite rightly, the community recognized that the Army Corps of Engineers should be asked to do more to help address the erosion problems on South and West Beach as it is clearly established that the operation of the Wilmington Harbor Entrance Channel is a significant contributing factor to the erosion on that shoreline.

The community requested that the budget be increased to pay for professional lobbying services that would support the Village’s appeal for greater federal responsibility in responding to erosion in the future. Again, this suggestion is from the community and one PARC supports. The \$17.5 million project budget initially included \$145,000 for “professional lobbying services,” a sum all appear to recognize as inadequate given the complexity and duration of a federal dialogue of this character.

During the workshop on November 14, Village Council directed PARC to take two actions with respect to the “Professional Lobbying Services” line item in the draft Financing Plan. First, the Council directed that the planned \$145,000 lobbying line item be removed from the ISP Financing Plan as the plan otherwise funds capitol improvements. The Lobbying expenses would be addressed separately in the Village’s general operating budget, which are clearly distinct from “lobbying services.” Second, the Council directed that PARC “reprogram” the

\$145,000 in the draft ISP Financial Plan from “Professional Lobbying Services” to the “East Beach Dune Projects” line item, thus increasing the amount available for East Beach Dunes from \$120,000 to \$265,000.

Olson and Associates believes that East Beach is relatively stable compared to other shorelines on the island. While PARC has no reason to doubt that conclusion, it is clear periodic storm events can cause damage to East Beach dunes and creating the financial capacity to respond should such events transpire seems appropriate.

PARC wishes to thank the Village of Bald Head Island staff and community for the opportunity to assist in this planning process. Specifically, we would like to thank Village Manger Calvin Peck, who’s steady guidance and insight kept the project on tract, Chris McCall, Director of Planning, who prepared all the exhibits and compiled the data, David Cox, IP Services, who created the website, managed the presentations and web casts, and the Mayor and Council, who attended the meetings and provided insight into the complex considerations on the island.

We would welcome the opportunity to work with the Village in the future. It has been a privilege.

Respectfully submitted,

*Peter A. Ravella*

Peter Ravella, President  
PARC, LLC

**ATTACHMENT 1:**  
**ON-LINE SURVEY RESULTS**

***Note to Village Staff***

***Please print and include here the following attached to my email***

***2008-10-27 summary.pdf***  
***2008-10-27 names.pdf***  
***2008-10-27 other ques 2.pdf***  
***2008-10-27 other ques 3.pdf***  
***2008-10-27 other ques 4.pdf***

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