

BEACHES 2017 & BEYOND

A Funding Initiative for Statewide Beach Management

Healthy beaches are vital to protecting Florida's tourism industry, upland public and private properties, unique wildlife and quality of life, and it is important to protect and maintain them. Inarguably, the economic benefits to property values, tourism, and jobs by maintaining healthy beaches far outweigh the investment needed to combat coastal erosion.

Introduction

Part I. The Funding Need

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Part III. (TBD) Supportive Statutory Changes for Sustaining the Statewide Beach Management Program Going Forward

Beach erosion is caused by coastal storms, imprudent construction, sea level rise, and coastal inlets that interrupt sand movement. Recognizing beach erosion is a statewide problem and not confined to governmental jurisdictions, the Florida Legislature created a comprehensive statewide beach and inlet management program with a required long-term management plan and dedicated funding to partner with coastal communities for beach restoration. The state's funding commitment was often the financial lift communities needed to move forward with shoreline protection. Having partnered with communities in the restoration or maintenance of 227 miles of eroding shoreline, the State's program has been very successful in generating state and local benefits.

Over 130 miles of the state's managed beaches also includes the Federal government as a partner, funding an average of 62% of the cost for Florida's 25 federally-authorized projects.

With the passage of Amendment 1, the dedicated trust fund and set aside of documentary stamp taxes for the beach management program were replaced by statutory reference to the single Amendment 1 trust fund. It is time to begin a new and timely conversation on the importance of healthy beaches and renew the case for predictable, annual funding needed to sustain the beach management program and maintain the miles of beaches already restored.

Join FSBPA as we ask the Legislature to write the next chapter for the protection of Florida's beaches



PART I: THE FUNDING NEED

Setting the Stage

- Florida's 825 miles of sandy beaches define the state's brand and drive our tourism economy.
- 411 miles, approximately half of Florida's beaches, are critically-eroded (DEP, 2016). Of those miles, 227 are part of an active beach management project.
- Just to maintain the historical legislative commitment (1998) to the statewide beach program of \$30M annually in documentary stamp revenues to leverage federal and local government matching funds, if simply adjusted for inflation, would now require \$44M.
- Inflation alone does not take into consideration that during this same timeframe (1998 to 2016), Florida has experienced numerous hurricanes and other coastal storms which has contributed to the critically-eroded miles of shoreline having increased over 30% (from 317 to 411 miles); the miles participating in the state's beach program have increased over 50% (from 150 to 227 miles); and 45% of the currently-designated miles of critically-eroded beaches are still not part of any solution.

Funding Profile

- The 1998 \$30M statutory documentary stamp tax allocation was truly the magic number for several years until significant storm damages in 2004/2005. For the next few years the average legislative appropriation was \$56M.
- During the "recession years" that followed, the state provided funding for a modest mix of 12 projects per year and an average annual appropriation of \$16.7M, despite annual requests averaging \$86M. Funding was mostly from General Revenue and used exclusively to leverage federal dollars.
- Following passage of Amendment 1, the historical 1998 allocation and the corresponding designated beach management trust fund are no longer in place. However, s. 161.091, F.S., was amended to authorize the Legislature to make disbursements from the Amendment 1's Land Acquisition Trust Fund (LATF) to DEP to carry out the state's responsibility for erosion control in a comprehensive long-term beach management plan.
- With FY 15/16 Amendment 1 implementation, beach projects have received partial annual funding from its only recognized trust fund, LATF.
- A comparison of beach funding from just the first two years following Amendment 1 implementation, the number of beach projects funded and amount of funding have declined when compared to the two preceding years. In the current year, FY 2016/17, only 35% of the number of local government projects requesting state match received funding, and the amount of state funding totaled just 33% of the total dollars requested.

APPROPRIATIONS VS. REQUESTED DOLLARS				
	Pre- Amendment 1		Post- Amendment 1	
	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17
Appropriation Amount	\$37.5M	\$47.3M	\$32.1M (\$25M Trust Fund)	\$32.6M (\$21.2M Trust Fund)
Percentage of project requests funded (% of total)	49%	45%	42%	35%
Amount of state funding requested (% of total)	42%	53%	32%	33%

- Unfortunately, the result is a growing project backlog, which leaves far too many worthy projects unfunded year after year and too many miles of beach left to further erode along with their tourism and storm damage reduction contributions to Florida’s economy.
- In the first two years since passage of Amendment 1, **the historical beach doc stamp allocation, now from the LATF, has been just \$25M and \$21.2M respectively** with the difference in annual funding coming from non-recurring general revenue.
- In both fiscal years, implementing bills set aside the statutory requirement of 10% of the statewide total being made available to ranked inlet sand bypassing/management projects.
- Significant opportunities to leverage federal and local match may be missed without adequate funding. There are 25 federally authorized projects addressing 134.4 miles of shoreline. Florida has the largest federal shore protection program in the Nation. Total Florida Federal obligations to date for FY 1980-2016 are \$1,155,000,000. The Federal funding obligation for Florida shore protection projects is projected to be **\$1.3 billion** over the next 20-year period (Total cost \$2.2B, remainder non-federal share).
- **Consider the American Society of Civil Engineers 2016 Report Card for Florida’s Infrastructure. The grade for the condition and management of Florida’s beaches is a dismal D+.** There is however a positive narrative—“Florida’s economy relies heavily on its beaches, the state’s invisible coastal infrastructure that protects Florida’s communities.” “The State and the U.S. Army Corps of Engineers experience shows the most cost-effective, socially and environmentally suitable way to reduce storm damages and coastal flooding on most open coast sites occurs through beach nourishment.”
- While there may be certain questionable assumptions and interpretations in the ASCE report, the bottom line is a **\$5.6 billion need for the next 20 years** (based on estimated costs per year per mile). Before we challenge this estimate because they included all critically-eroding miles of beach not just those included in existing projects or viable for future projects, keep in mind the Corps cost estimate for just its 134.4 miles for 20 years is \$2.2 billion, and to that we must add the 93 miles of already managed beach that are part of Florida’s non-federal (state and local only) subgroup of projects. Further, their cost considerations appear to include inlet management projects that are not or are only minimally considered in any program cost funding needs we attempt to justify herein.

Dedicated Funding Level for a Healthy Economic Future

1) Leverage Federal Dollars

- Almost 60% (134.4 of 227) of the critically-eroded miles of beach in Florida's program, which includes 25 named projects, are part of a Congressionally-authorized shore-protection project. This means **the Federal Government covers an average of 62% of the total project cost, and virtually all project storm damage recovery costs.** This helps stretch state dollars for the remaining separate subgroup of **state/local only** projects that address the miles of program-managed beaches. For both subgroups of projects, the non-federal cost share or total cost is, as a general rule of thumb, divided equally between state and local government.

2) Expect New Projects to Come On-line

- When determining future funding need, we should recognize that Florida's beach program is transitioning to a maintenance mode. There may be a few more federally-authorized projects but they will more likely be transfers of existing nonfederal (state/local only) projects to the federally-authorized category versus new projects. New projects in Florida are more likely to be non-federal, increasing the state and local cost-shares considerably given the absence of federal funding participation.
- There are no predictors for the annual mix of federal vs nonfederal (state/local only) projects seeking state cost-sharing in a given fiscal year.
- There are 50% more miles participating in the beach program now than in 1998, requiring funding of at least \$45M, and this amount does not include the inflation index (\$14M) or, more importantly, escalating construction and regulatory costs.

The Future of Funding

- *Look for opportunities to leverage.*
The Federal government funds a minimum of 46.6% of project costs, and up to 100%.
- *Expect new state and local only projects.*
Miles participating in beach management program increased 50% since dedicated funding came on-line.
- *Support federal-state-local partnerships*
A projected \$58M / year is needed to match federal and local dollars for just beach nourishment projects.
- *Fund inlet management & sand bypassing projects.*
Florida's separate program component for inlet sand bypassing/management projects is not as effective as legislatively intended because of inadequate emphasis and funding as well as arbitrary statutory incentives and thresholds.

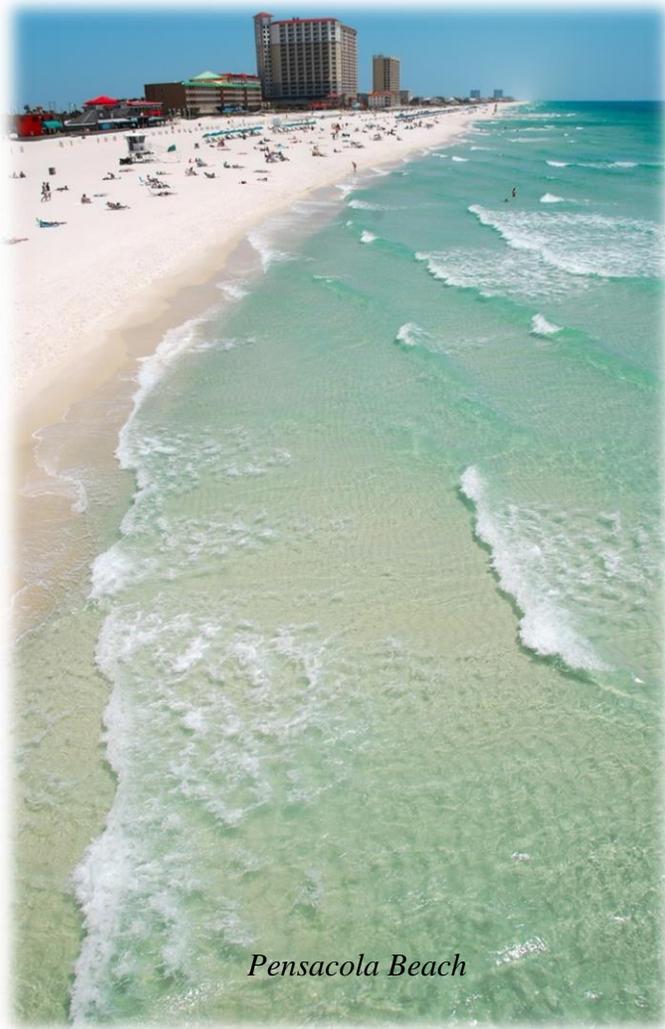
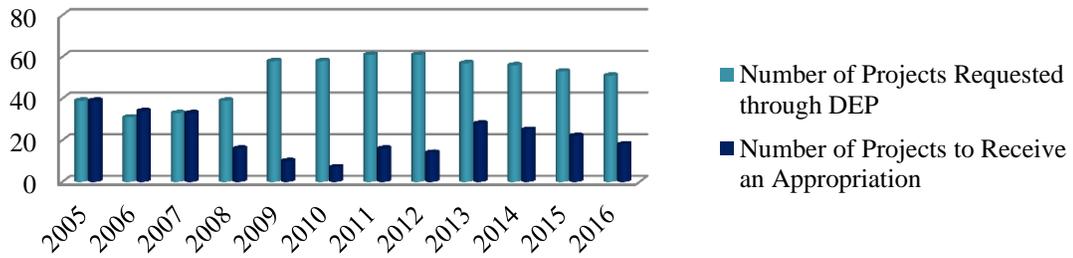
3) Annualize the State's Cost Share

- If we recognize all active Florida projects and employ an **annualized state cost-share per project for a 20 year period (like Amendment 1)**, a measure of cost using Corps average annual project cost data from 2014 **would be \$63.8M for beach projects** (includes arbitrary minimum percentages for monitoring and inlet management).
- All **active** beach projects (est. 60) would require a low figure \$58 million annually in state funding to match both the federal and local project contribution. (This also includes post-construction monitoring costs of 3.8 %.) When the separate statutory minimum (161.143) of 10% for inlet sand bypassing/inlet management is added, the total is **\$63.8 million for this project-based estimate**. It's not a precise calculation and can't accommodate expected fluctuations in the timing, number, and specific mix of projects in a given year, but merits consideration as a long-term average. Unexpectedly, the ASCE Report, previously referenced, used a variation of this annualized approach.
- For the immediate future focusing on project backlog should be the only consideration. However, occasional surplus funds may be put toward accommodating an increasing number of difficult existing projects experiencing significantly higher mitigation and risk aversion costs; funding a select number of new projects for the +180 miles of critically-eroded shoreline currently not part of the State's beach program; securing increasingly scarce and expensive sand sources; and preparing a post-storm recovery component of the comprehensive long-term management plan (Office of Economic and Demographic Research (EDR) Report, 2015).
- As noted, this **\$63.8 million scenario continues to follow the arbitrary 10% inlet funding threshold (\$5.8M) despite its obvious shortfall**, especially its failure to fund major new construction initiatives that will greatly reduce future long-term costs to nourish adjacent eroding beaches. For perspective, the inlet sand bypassing / management project requests for FY 2017/18 are anticipated to be in the \$30M range. Why is this so important? Because inlets interrupt the natural flow of sand, especially on Florida's East Coast, virtually starving downdrift beaches.

4) Consider the Middle Ground

- To keep it simple, we can also examine multiple years and take averages to capture the usual mix of project phases with very different costs (feasibility, PED, initial restoration, renourishment, structures, monitoring) or just focus on the current fiscal year to decide how much healthy beaches are worth to the State going forward.
For FY 2016/17, 51 specific projects requested funding of \$97,645,260. Only 18 projects received funding with this year's mix of funded projects including initial restoration, nourishment, structures, design, and a generic post construction monitoring category. The total amount appropriated for statewide beach management was **\$32,562,424**. This year's beach program addresses 35% of the project requests and 33% of the state funding requested.

Number of Beach Erosion Control Projects Requesting and Receiving State Funds (2005 - 2016)



To fund just half of the FY 2016/17 individual local government requests would have a state cost share of **\$48.9M**. (25.5 projects at \$1.9M average per project)

This level of funding is intended to keep the project backlog from growing measurably in the short-term, given all other factors remaining constant, which is unlikely.

And this increased level of funding (\$50M range) **does not** even accommodate inlet sand bypassing/management minimum statutory allocations, much less actual need, or address any portion of the **45% or 184 miles of critically eroded miles of beach that are not part of the statewide program.**

Storm impacts are also not in the equation. (A 2015 EDR Report identified \$80M in 2014 nourishment costs would be needed for a single high-impact event and \$40M for a medium impact event.)

PART II: ECONOMIC BENEFITS OF HEALTHY BEACHES

Beaches and Tourism

Florida greeted historic numbers of more than 105 million out-of-state visitors in 2015 and is on track to have another record breaking year in 2016.

Trip Advisor ranks 6 Florida beaches inside the top 10 on its 2016 Travelers' Choice Awards.

These beaches are restored or adjacent to a restored beach helping to maintain Florida's brand.

Clearwater Beach ranks #1!

The Office of Economic and Demographic Research (EDR) was asked by the Legislature to evaluate the strength or the relationship between Florida's beaches and tourism. In their 2015 report:

- **EDR's research found that pristine beaches are the most important feature of Florida's brand, topping the list as our # 1 tourist attraction.** Florida's beaches have the strongest effect of attracting tourists over other destinations such as theme parks.

- EDR determined over 18.6 million visitors came to Florida in 2013 **just** because of our beaches. EDR also estimated the 18.6 million beach visitors spent over \$2 billion, all directly attributable to Florida's beaches!

- Healthy beaches are critical to maintaining Florida's brand, and if they are not maintained, visitors will travel elsewhere. Because of this, beach nourishment was characterized by EDR as a form of quality control to ensure Florida's most important feature is a quality product when visitors arrive.

EDR's study produced an unprecedented **Return on Investment of 5.4 for the beach program**, and concluded a state investment of \$44M in the beach program resulted in an average GDP increase of \$2.4B per year that increased the collection of state revenues by \$237.9M.



Clearwater Beach

Beaches, Storm Damage, Coastal Flooding

Healthy beaches have additional economic related benefits including storm damage reduction benefits and increased property values.

- Beaches provide protection to upland properties from storm damages. The wider or more elevated a beach, the greater the protection to upland properties.
- The protection afforded by beaches benefits coastal properties by maintaining values or limiting value reductions as a result of coastal storms. After the 2004 and 2005 hurricane seasons, restored beaches in only eight coastal counties prevented a loss of \$1.8 billion in property values. (FAU, 2007)
- More recently, EDR estimated the anticipated lost state revenues and storm specific beach nourishment appropriations needed to repair impacted beaches for high, medium and low impact disasters. The economic impacts are represented in the table below.

Estimated Impact of Potential Shocks in Millions of 2014 Dollars			
	High-impact Disaster	Medium-impact Disaster	Low-impact Disaster
Storm-specific Beach Restoration Appropriation	\$79.9 M	\$33.9 M	\$13.1 M
State Tax Revenue Loss from Reduced Visitor Spending	\$56.8 M	\$30.0 M	\$3.3 M

- In addition to these fiscal impacts, a 2010 report prepared for the Florida Department of Financial Services by Milliman, Inc., estimated impacts from a high impact storm would result in **\$159.5 billion in property damage, of which \$80.4 billion would be uninsured.**

- It is important to protect beaches from erosion and quickly address severe storm-related damage. (EDR)
- Beach nourishment is a cost-effective and recognized adaptation strategy for addressing coastal resiliency and sea level rise initiatives.



2007 Subtropical Storm Andrea, Lantana Beach, Palm

The Overriding Messages

Healthy beaches result in higher coastal property values, which increase documentary stamp tax revenues, so more money is available to fund Amendment 1 programs. Simply put, managed beaches will increase the size of the pie for the benefit of all water and land interests.

Consistent dedicated state funding is vital to match local and federal funding for beach nourishment. Without it, many beaches, communities, and even state revenues will suffer significant economic losses.

With a ROI of 5.4 to 1, Florida's financial commitment to the statewide beach management program is a solid investment. Florida's expenditure of \$44M resulted in \$238M in additional state revenues (EDR, 2015).

Annual Funding Levels – What is the Magic Number for Projects?

- **\$44M / year** –
 - Amount for inflation alone since 1998
- **\$59M / year** –
 - Amount for inflation plus 50% growth in program miles
- **\$50M / year** –
 - Amount to fund half of the annual (16/17) funding requests
- **\$63M / year** –
 - Amount needed to employ an annualized state cost share for active projects for a 20-year period

Experience shows the most cost-effective, socially and environmentally suitable way to reduce storm damages and coastal flooding on most open coast sites occurs through beach nourishment. Using a cost per yr. per mile calculation results in a 20-year need of \$5.6 billion (American Society of Civil Engineers, 2016 Report Card for Florida's Infrastructure). If we revisit and consider the Florida beach program's historical objective of equal partners (Federal, state and local government) the state cost share per year would be \$93M.