

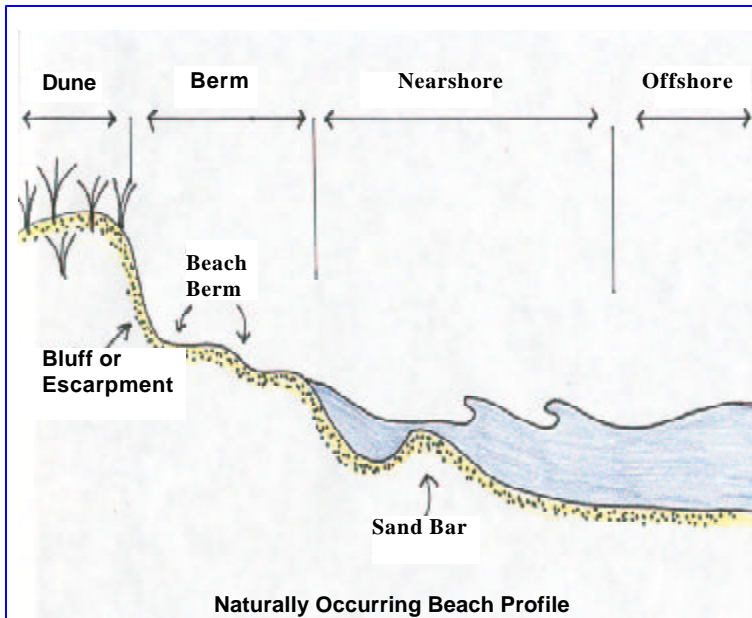
ECONOMICS OF FLORIDA'S BEACHES

THE IMPACT OF BEACH RESTORATION

Understanding Beaches

Florida is the nation's premier coastal state, dependent on its 825 miles of sandy beaches fronting the Atlantic Ocean and Gulf of Mexico for the enjoyment of its residents and tourists. Everyone cherishes beaches as important recreation areas for family outings and leisure activity. Beaches provide marine habitat for many species, including endangered and threatened species. Beaches also provide storm protection for public infrastructure and private upland development.

Equally important to Florida but less recognized are the substantial economic benefits that result from beaches. Beaches are Florida's primary tourist attraction. Beach-related tourism has a \$41.6 billion annual impact on our state's economy. Beaches contribute to expanding federal, state, and local tax bases; increase sales, income, and employment opportunities from resident and visitor spending; and enhance property values.



Beaches are dynamic land forms subject to both severe storm damage and man-induced erosion. As a result, they require protection, and in some cases repair. To suggest that beaches will survive if simply left alone or addressed only with stringent development regulations is to ignore the causes of erosion. Nature nourishes our beaches by depositing sand along the shore carried by currents known as littoral drift. Unfortunately, structures such as our navigation inlets and other coastal structures interrupt this process. As much as 80% of the erosion on Florida's East Coast is attributable to the navigation improvements and historical sediment management practices at our inlets, which have disrupted the natural flow of sand, virtually starving downdrift beaches. The engineering solution to this problem called "restoration and nourishment" imitates nature by bringing large quantities of sand by dredge and pipeline, or by inlet sand bypassing, to restore the natural flow of sediment.

BENEFITS OF BEACHES

- Enhance Property Values
- Increase Sales, Income & Employment
- Expand Federal, State & Local Tax Bases
- Protect Developed Shorefront from Storm Surges
- Prevent Loss of Upland
- Provide Habitat for Animals & Vegetation

Florida's beach management program, pursuant to Florida Statutes Chapter 161, the Florida Beach and Shore Preservation Act, provides for a variety of local government-sponsored erosion control activities (e.g. restoration, nourishment, inlet sand bypassing, dune repair and revegetation, erosion control structures, feasibility and design studies, and innovative demonstration projects). Restoration involves the initial placement of sand to rebuild a beach that has severely eroded. Beach nourishment, also referred to as renourishment or periodic maintenance, places sand at usually 5 to 10 year intervals on previously restored beaches to maintain original design intent, such as storm protection, recreational beach area, and habitat enhancement. As part of Florida's nationally-recognized beach management program, all major projects require physical and biological monitoring to document project performance and potential impacts.

The restoration of beaches is an often misunderstood and controversial subject. However, it is inarguable that beaches in many of Florida's coastal communities were virtually gone prior to restoration, as were the tourists, leaving billions of dollars of oceanfront development, infrastructure and habitat defenseless against the next major storm event.

The issue may be simplified by thinking of beaches like roads, requiring periodic "resurfacing" with sand. Some still argue that adding sand to the system is a costly folly, while others feel the return on investment far exceeds the cost. Further, for every \$1 the State of Florida spends on beach management, that money is matched with \$1 to \$5 from local and federal sources, depending on the level of federal participation. Each state dollar spent protecting Florida's beaches with widespread public access prevents the loss of \$8 in state taxes paid by out of state tourists and resident users of Florida's beaches.

LEGISLATIVE INTENT

"Because beach erosion is a serious menace to the economy and general welfare of the people of this state and has advanced to emergency proportions, it is hereby declared to be a necessary governmental responsibility to properly manage and protect Florida beaches fronting on the Atlantic Ocean, Gulf of Mexico, and Straits of Florida from erosion and that the Legislature make provision for beach restoration and nourishment projects . . ." [Florida Statutes 161.088].

REASONS TO NOURISH BEACHES

Importance of Florida Beaches to State Tourism

- The economic impact of Florida's beach visitors in 2000 included 442,000 jobs and **over \$700 million in sales tax directly paid by Florida beach tourists.**
- Of the **71 million annual tourists who visit Florida**, over 23 million reported going to Florida beaches as a primary vacation activity during their stay.
- Direct spending by Florida's beach visitors in 2000 was estimated at **\$21.9 billion.**
- Indirect spending by Florida's beach visitors in 2000 was estimated at **\$19.7 billion.**
- Total spending by Florida's beach visitors in 2000 was estimated at **\$41.6 billion.**
- Over \$8 billion in payroll results from additional spending related to the state's beaches.

(Stronge, 2002)

Importance of Florida Beaches to State Residents

- Florida has an interest in mitigating impacts of inlets that cause erosion. Over 80% of erosion on Florida's east coast is attributable to impacts of navigation inlets.
- Nearly 80% of Florida's residents live in coastal counties.
- Over 60% of Florida's population lived within five miles of the coast in 1995.
- Over \$25 billion, or approximately 25% of the value of Florida's coastal real estate, can be attributed to beaches.

Beaches Fuel State's Tourism

"Travel and tourism contributed 16.5% of U.S. exports worth \$196.3 billion in 2001" (World Travel and Tourism Council as cited by Houston, 2002). Notably, international tourism is the world's largest export earner, outstripping exports of any other product or service. Within our borders "Three of every four U.S. summer travelers plan to visit beaches" (Visit Florida as cited by Florida Today, July 28, 2002). Houston (2002) studied the economic impact of beach restoration on tourism and found that ". . . foreign tourists at Miami Beach alone pay more in Federal taxes than the Federal Government spends nationally on beach nourishment." Houston explained that tourism and travel is the largest employer, earner of foreign exchange and industry in the United States. The largest factor in travel and tourism is beaches. Tourist visitors to Miami Beach exceed those to Yellowstone, the Grand Canyon and Yosemite combined. Since the 1960s, federal investment has increased to approximately \$100 million per year, compared with travel and tourism, which produces \$223.9 billion in tax revenues annually (Houston, 2001).

Brian Flynn, who handles beach projects for Miami-Dade County, said: "When you depend on tourists and you don't have a beach, you have a problem." In the 1970s, a large restoration project began in Miami Beach, which changed the scarred and eroded shoreline to sandy beach. This ongoing project costs \$2 million per year for maintenance and renourishment. (Clayton, B., July 28, 2002, Florida Today). Prior to the beginning of the project in 1978, Miami had roughly eight million visitors, compared with 21 million visitors afterward in 1983. Today in Miami Beach, these visitors spend \$4.4 billion annually, including expenditures of \$2.4 billion by foreign tourists (Houston, 2002).

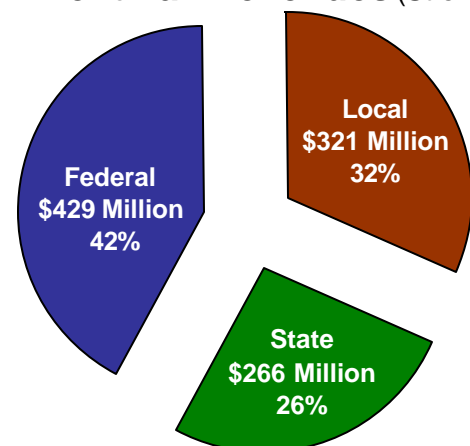
RESULTS OF HEALTHY BEACHES

Beach Tourists Generate Billions

Advocates of beach restoration, such as the Florida Shore and Beach Preservation Association, argue that investing in beaches is money well spent due to significant annual revenues from direct tourist spending. Beaches represent one of America's largest industries, contributing 12% or \$1.2 trillion to America's gross domestic product (World Travel and Tourism Council as cited by Douglass, 2002). It is estimated that one in eight, or 17 million, American jobs are in travel and tourism.

The contribution of Florida's beaches to government tax revenues is impressive. These tax revenues provide millions of dollars annually to federal, state and local governments. Over 23.2 million tourists visited Florida beaches in 2000, spending \$21.9 billion, resulting in an indirect economic effect of \$19.7 billion and a total economic impact of \$41.6 billion. Sales tax revenues generated from direct tourist spending was \$700 million in 2000.

Contribution of Florida's Beaches to Government Tax Revenues (Stronge, 1998)



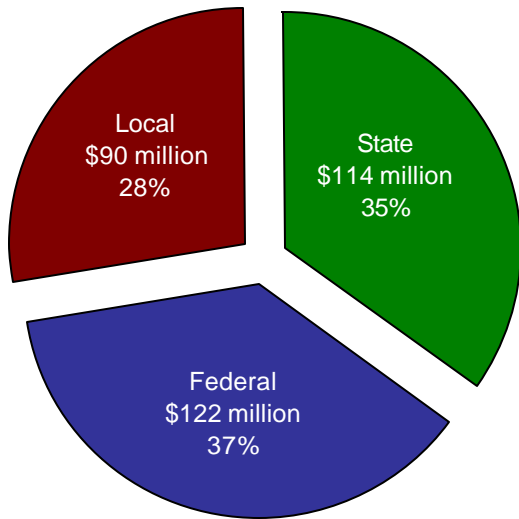
Note: Average property tax millages calculated for the regions from 1994 data; sales tax rate based on 3%, federal taxes based on applying a personal income tax rate of 7.4% to payroll impacts added to 23.6% to allow for corporate taxes, based on 1997 data.

STATUS OF FLORIDA BEACHES

DEP Quarterly Performance Report, Fiscal Year 2002-2003

79%	Beaches that Provide Upland Protection, Wildlife or Recreation According to Statutory/Rule Requirements.
48%	Critically Eroded Beaches under Management Plan and the percentage on which erosion has been reduced or reversed.

Sources of Government Funding for Florida Beaches, 1992-2002



Florida Beach Projects

A total of 91 beach projects are currently underway throughout Florida or completed since 1992. These involve 51 different government partners. Local government partners have contributed \$90 million to beach projects. The federal government has contributed \$122 million to Florida's beach projects since 1992. Over the past five years, about 55 miles of Florida's beaches have been nourished or restored; more than 27 miles of Florida's beaches were restored or nourished in 2002. The federal government has also placed 14 million cubic yards of sand on beaches as part of the maintenance of inlets since 1992.

BEACH VACATIONS PROFITABLE

- Compared with the average traveler, beach travelers take longer vacations, spend more money on trips and are more likely to spend extended amounts of time in the community by renting condominiums or timeshares.
- Beach vacations generate \$850 per trip and half include shopping along with beach activity.
- Nearly four out of every ten U.S. households visit beaches and take a child on their trip.
- Overnight beach trips last an average of 5.9 nights, compared with an average of 4.1 nights for overall travel.

(Travel Industry Association of America, 2002)

Critically Eroded Beaches

Over 435 miles of Florida's 825 miles of sandy beaches have experienced erosion (State of Florida, Strategic Beach Management Plan, 2002). The total number of miles of eroded beach has increased by 104 miles since 1989, from 332 miles in 1989 to over 435 miles in 2002. In 1989, 218 miles of beach were critically eroded. At present, approximately 333 miles are designated as critically eroded. Such erosion threatens private or public development and infrastructure or significant cultural or environmental resources. It is caused "by both human coastal activities and natural forces" (Schmidt & Woodruff, 1999, Shore & Beach). Of the critically eroded shoreline in the state, just over 161 miles are being managed by the state (State of Florida, Strategic Beach Management Plan, 2002).

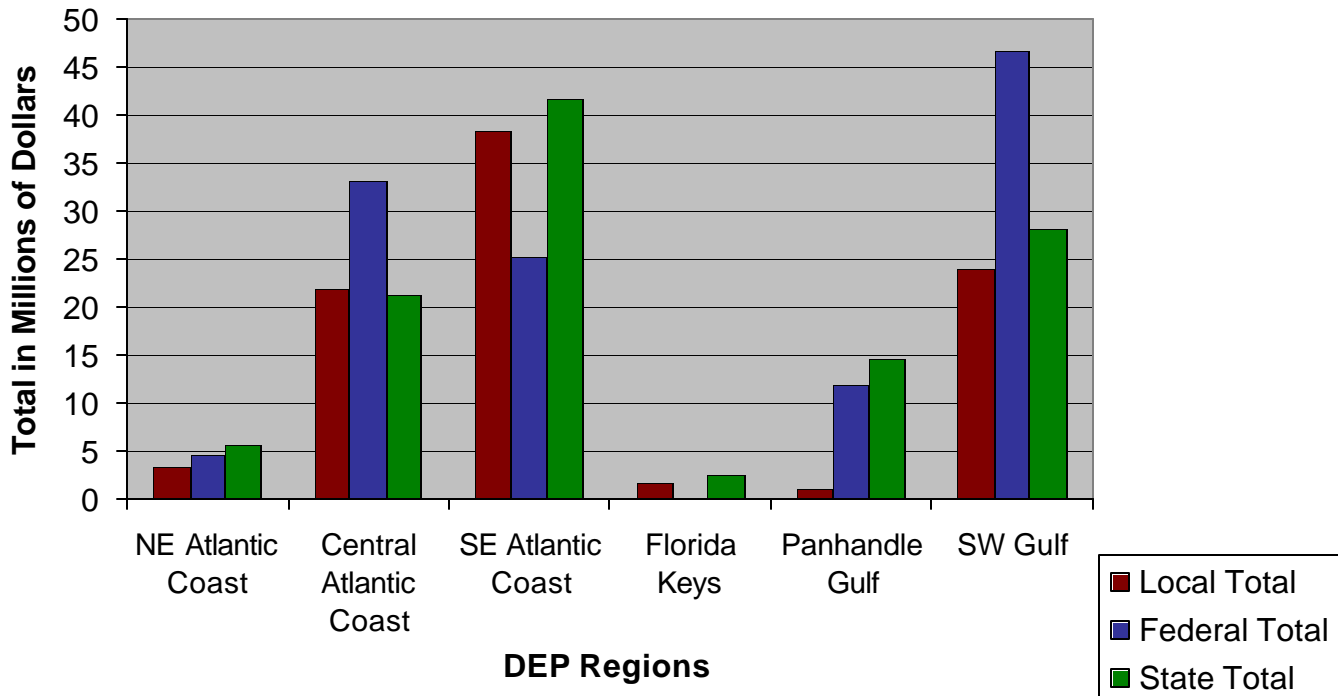
DEP Region	Critically Eroded Beaches	Percent Managed
Northeast Atlantic	45.7 miles	38.0%
Central Atlantic	55.8 miles	49.0%
Southeast Atlantic	69.0 miles	62.0%
Florida Keys	7.7 miles	8.0%
Panhandle Gulf	62.0 miles	29.0%
Big Bend Gulf	1.7 miles	0%
Southwest Gulf	91.0 miles	51.0%

LEGISLATIVE INTENT

"In accordance with the intent expressed in s. 161.088 and the legislative finding that erosion of the beaches of this state is detrimental on tourism, the state's major industry, further exposes the state's highly developed coastline to severe storm damage, and threatens beach-related jobs, which, if not stopped could significantly reduce state sales tax revenues, funds deposited into the State Treasury to the credit of the Ecosystem Management and Restoration Trust Fund, in the annual amounts provided in s. 201.15(8), shall be used, for a period of not less than 15 years to fund the development, implementation, and administration of the state's beach management plan . . ." [Florida Statutes 161.091(3)].

FUNDING SOURCES FOR FLORIDA BEACHES

Total Federal, State & Local Funding for Florida Beaches, 1992-2002



DEP Regions	Northeast Atlantic	Central Atlantic	Southeast Atlantic	Florida Keys	Panhandle Gulf	Southwest Gulf
Counties in the Region	Duval Flagler Nassau St. Johns Volusia	Brevard Martin St. Lucie/ Indian River	Broward Miami-Dade Palm Beach	Monroe	Gulf Bay Escambia Franklin Gulf Okaloosa Walton	Charlotte Collier Lee Manatee Pinellas Sarasota

LEGISLATIVE INTENT

“ . . . prior to deposit of any moneys into the General Revenue Fund, \$30 million shall be paid into the State Treasury to the credit of the Ecosystem Management and Restoration Trust Fund in fiscal year 2000-2001 and each fiscal year thereafter, to be used for the preservation and repair of the state’s beaches as provided in ss. 161.091-161.212” [Florida Statutes 201.15(11)].

“The Legislature finds and declares that the beaches in this state and the coastal barrier dunes adjacent to such beaches, by their nature, are subject to frequent and severe fluctuations and represent one of the most valuable natural resources of Florida and that it is in the public interest to preserve and protect them . . .” [Florida Statutes 161.053]

BEACHES AS ECONOMIC ENGINES

- Travel and tourism are an American industry with a substantial and consistent foreign trade surplus. In 1999, that surplus was nearly \$14 billion (International Trade Administration and Bureau of Economic Analysis).
- Beaches bring billions of dollars to federal, state and local governments in the form of tax revenues. Beaches benefit state and local government through increased sales taxes and property taxes (Douglass, 2002).
- Anything that harms beaches harms the economy. “The addition of sand can save the recreational and aesthetic aspects of the beach that control its economic value as well as provide storm protection” (Douglass, 2002).

According to Visit Florida, 19.4 million visitors came to Florida in April, May and June of 2002. (Executive Office of the Governor, 2002).

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