

ANNUAL UPDATE OF THE CORPS OF ENGINEERS
BEACH PROJECTS IN FLORIDA
BY
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TO THE ANNUAL MEETING OF THE
FLORIDA SHORE AND BEACH PRESERVATION ASSOCIATION

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Good morning ladies and gentlemen. I am Colonel Rock Salt, Jacksonville District Engineer. It's a pleasure for me to be here today and to have this opportunity to give you an update on the Federal shore protection program for Florida.

Before I start, let me say that I fully recognize the importance of beaches and shores to Florida and the nation. I have heard so much good about this organization (FSBPA) and the tremendous efforts and results you have had in protecting one of our nation's most important resources. I look forward to meeting those of you I haven't met and working with all of you. We in Jacksonville attach a great deal of importance to this annual meeting. There are several senior staff members and technical specialists with me today. I'd like to introduce Mr. Richard Bonner, the Deputy District Engineer for Project Management; Mr. Eddie Salem, Chief of the Planning Division; Mr. Joe Gurule, Chief of the Coastal Section in the Engineering Division; and Mr. Charlie Stevens, Project Manager for Coastal Projects. Let me know if we can help you.

I intend this morning to address the status of our current shore protection studies and projects, and then I'll summarize the Federal government's efforts to place sand on Florida's beaches since 1980.

During the past year, the Corps of Engineers has been involved in 4 studies under the General Investigations program and 2 studies under the small projects, or continuing authorities program. In 1992, Federal funds are available to complete the Brevard County reconnaissance study. We have also conducted 14 special investigation studies.

Additionally, there are 10 projects in the preconstruction, engineering and design phase, which provide the in-depth technical detail needed for construction.

The first step in developing a Federal shore protection project is the perception of a problem at the local level. Once a problem is identified, the local sponsor requests a Congressional representative to obtain authorization for the Corps to study the problem. Shore protection studies are accomplished under the General Investigations, or GI program. GI studies have 2 phases: 1) the Reconnaissance Phase, which is 100% Federally funded, and 2) the Feasibility Phase, which is split 50%/50% between the Corps and the local sponsor.

The Reconnaissance Phase accomplishes 4 tasks. This phase 1) defines the problem, 2) determines that at least one potential solution will have Federal

interest and be supported by the local sponsor, 3) estimates the cost of the Feasibility Phase, and 4) develops the cost sharing agreement.

Once the Reconnaissance report is approved by the Office of the Assistant Secretary of the Army for Civil Works and a feasibility cost sharing agreement is signed, the Feasibility phase begins.

Under the General Investigations program, the 4 studies conducted during 1991 are Daytona Beach Shores, Perdido Key Beaches by the Mobile District, Tampa Bay Coastal Areas, and the Coast of Florida Study.

The Daytona Beach Shores shore protection study was authorized in 1988 to determine the need for storm damage protection along the City of Daytona Beach Shores and adjacent shores. The reconnaissance report was just completed last month. There are sufficient storm damage benefits to justify a shore protection project for the area. We have recommended that the study proceed to the feasibility phase. This phase will begin after approval of the reconnaissance report, concurrence by the local sponsor including the signing of the feasibility cost sharing agreement and receipt of Federal and local funding.

A reconnaissance study by the Mobile District was initiated to evaluate the beaches west of Gulf Islands National Seashore on Perdido Key. About 3 and 1/2 miles in the center of the Key are experiencing erosion and endangering structures. This study is scheduled to be completed in 1992.

The Tampa Bay Coastal Areas study was authorized by House Resolution dated August 3, 1989, to evaluate the need for storm damage and flood protection along 62 miles of Tampa Bay shoreline with emphasis on 4,000 feet of Ben T. Davis Beach along Courtney Campbell Causeway. The report is scheduled for completion in March 1992.

While the Brevard County study was not funded for work in FY 91, I would like to briefly mention that in FY 92 funds will be available to complete the reconnaissance study. This study was authorized to evaluate shoreline conditions along Satellite Beach, Indian Harbor Beach, Indialantic/Melbourne Beach and the City of Cape Canaveral.

I would also like to briefly mention another study which was not funded in FY 91. In 1990, Congress authorized a study for the southern end of Amelia Island in Nassau County. The purpose of the study is to determine whether the southern end of the island should be included in the Nassau County Shore Protection Project. To date, however, a study sponsor has not been identified and the study has not been initiated.

Finally, the last, but largest, General Investigation study is the Coast of Florida Erosion and Storm Effects Study. This study was authorized to evaluate coastal processes and to determine the need for modifying existing shore protection and/or navigation projects in Florida. The study is a major cooperative effort between the Corps of Engineers and the Florida Department of Natural Resources. The study sponsor, the Department's Division of Beaches and Shores, is coordinating the study for the state, and is providing half of the study cost.

The reconnaissance report identifying the data gaps and needs along the southeast coast was completed in July 1986. The state and the Corps signed the initial cost sharing agreement for the feasibility study in June 1988.

For the purposes of the study, the state has been divided into five regions. The first area to be studied is Region III, which is comprised of the 92 miles of shorefront in Palm Beach, Broward and Dade Counties.

Work accomplished in Region III last year included the completion of wave data collection from two gages located offshore of Hallandale and Lake Worth Pier. The data will be used to verify existing wave hindcast data for the region. Also, sophisticated Geographical Information System, or GIS, computer hardware was brought online. The GIS equipment will be used to store and analyze the engineering, economic, environmental, and geotechnical data bases.

In 92, the numerical models will be developed for analysis of coastal problems. The structure of GIS data bases will be developed and databases input into the computer. Field work and verification for the environmental database will be completed. The draft Feasibility Report for Region III is scheduled for completion in June 1993.

The next category I'd like to discuss is the continuing authorities, or small projects program. Congress has provided continuing authority to the Chief of Engineers to plan, design and construct small shore protection projects. The Federal participation in project cost including study cost, is \$2 million. The Federal monetary limit for a continuing authority emergency shore protection project (Section 14) is \$500,000.

In 91, the Corps' Continuing Authority studies and projects included Little Talbot Island and Fort Clinch. Due to budget constraints in the beginning of the year, funds for all continuing authority shore protection projects were severely curtailed. However, the 1991 Dire Emergency Supplemental Appropriations Act provided funds to re-start the continuing authorities shore protection program.

The reconnaissance study for Little Talbot Island is underway. Alternatives for protecting the southern shoreline of Little Talbot Island, Highway A1A and the bridge crossing over Fort George Inlet are being developed. This study is scheduled for completion in November, 1991. The Florida Department of Transportation is the local sponsor.

This project is an emergency shoreline protection project. It will protect the historic fort at Ft. Clinch from erosion damage. In 1986, the Assistant Secretary of the Army for Civil Works authorized Federal funds for the project. The project will restore 5 historic groins in the vicinity of the fort. A contract for the groin restoration work was awarded in June (1991) and the work should commence in the near future. After the groin restoration is complete, sand will be placed between the groins during maintenance dredging of the nearby Federal and Naval navigation projects--Fernandina Harbor and Kings Bay Entrance Channel.

Next, I would like to update you on our Section 933 and Section 934 studies. Together these make up the 14 special investigations studies I mentioned at the

opening of this presentation. Mr. Salem, Chief of the Planning Division at the Jacksonville District, made a comprehensive presentation on these two types of study authorizations at last year's FSBPA annual meeting.

Section 933 authorized the Federal government to share 50 percent in the additional cost to put suitable maintenance dredged material from Federal navigation projects along adjacent beaches. The State of Florida, by letter dated November 22, 1988, requested the study of 9 federal navigation projects under this authority.

High priority Section 933 studies were Charlotte Harbor and Fernandina Harbor. Drafts of both of these studies have been completed and approval is pending. Both recommend beach disposal of suitable maintenance dredged material.

Additional Section 933 studies are Nassau Sound, Jacksonville Harbor, St. Augustine Inlet, New Pass, Longboat Pass, Ponce de Leon Inlet and Tampa Bay Entrance. The draft reports for Nassau Sound and Jacksonville Harbor are nearing completion and will be available for public review early this winter. The St. Augustine Inlet report is scheduled for completion in 92. The remaining studies will be scheduled when funds become available.

Section 934 provides for extending Federal participation in renourishment of Federal shore protection projects up to 50 years. Five studies being conducted under the this authority are Duval County, Fort Pierce Beach, Delray Beach and 2 in Broward County - J.U. Lloyd to Hollywood/Hallandale and Pompano/Lauderdale-by-the-Sea.

The initial draft Duval County Section 934 report was completed in October, 1990. This report surfaced a policy issue regarding the economic analysis which has delayed its approval. We hope to have this issue resolved and report approval within a couple of months.

The Delray Beach report has been completed and was approved by the Assistant Secretary of the Army for Civil Works on March 1, 1991. A Design Memorandum has been prepared by the local sponsor. The third renourishment is tentatively scheduled for completion by the local sponsor in the summer of 1992.

The initial draft report for the J.U. Lloyd and Hollywood/Hallandale segment in Broward County was completed in April, 1991. It's approval is currently being delayed by the same economic analysis policy issued I mentioned earlier. The draft report for Pompano/Lauderdale-by-the-Sea segment in Broward County is scheduled for submittal December, 1991.

The initial draft report for Fort Pierce Beach is scheduled for submittal in 92.

A project enters the preconstruction, engineering and design (PED) phase when the Feasibility study for a shore protection project is approved. PED is initiated as soon as federal funds are provided. This phase provides the in-depth technical detail needed to begin construction.

The 1986 Water Resources Development Act 1986 authorized eight shore

protection projects for Florida. They are the Panama City Beaches, Pinellas, Sarasota, Charlotte, Monroe, Indian River and St. Johns Counties, and Dade County North of Haulover.

The 1988 Water Resources Development Act authorized the Nassau County Beach Erosion Control Project. Funds to initiate the design phase for this project will be available in FY-92.

Altogether, 10 shore protection projects have been authorized since 1986.

The 1990 Water Resources Development Act authorized a shore protection project for Martin County. Funds to initiate the design phase for this project will be available in Fiscal Year 92. A detailed presentation on the preconstruction, engineering and design phase of the Martin County project will be given at the first session tomorrow morning (0800 hours, 13 Sep).

Projects not yet constructed that were funded for Pre-construction, engineering and design this past year, are the in Manatee, Sarasota, and Monroe County Projects, the Mid-Town Segment of Palm Beach Island Project and the Panama City Project in the Mobile District.

The Federal Shore Protection Project for Manatee County provides for restoration of a protective beach along a 4.7-mile portion of Anna Maria Island. This work includes mitigation of 4.6 acres of nearshore hardbottom communities. The current estimated cost of the work is \$15.1 million. The local sponsor is Manatee County.

The Corps of Engineers owes an apology to the people of Manatee County, the County Commission and Mayor Katie Pierola for the delay in the construction of this project. We promised you a project last year. However, due to regrettable delays, this project has not been constructed. We are making every effort to initiate construction in Manatee County. A contract will be awarded as soon as possible next year.

The authorized shore protection project for Sarasota County consists of two segments--Longboat Key and Venice. A draft design memorandum addressing the Venice segment was completed January 1991. The final general design memorandum and Plans and Specifications are nearing completion and approval. We estimate construction contract award in early 92.

The Monroe County project authorization provides that initial construction of the 1.7 mile long project construction will be limited to the center 3,000 feet of the shorefront, which is known as Smathers Beach. The remaining shoreline would be constructed at a later date when project outputs and performance at Smathers Beach indicate such construction is warranted. The Design Memorandum for Smathers Beach is scheduled for completion in the summer of 92. The local sponsor is the Board of County Commissioners in cooperation with the City of Key West.

The locally prepared General Design Memorandum for the Mid-town segment of the Palm Beach Island Project is under review by the Corps. The Local project sponsor, Town of Palm Beach, intends to construct a protective beach along the

1.5 mile segment fronting the Town of Palm Beach, with subsequent Federal reimbursement. A contract award is scheduled for the Spring of 92, with completion of construction in the Fall of 92.

The Panama City Beaches shore protection project provides for restoration of about 18.5 miles between Philips Inlet and the Panama City Harbor entrance channel. The Corps' Mobile District, which manages the Federal Civil Works program for the Florida panhandle, is currently undertaking engineering and design studies for this project. A presentation on this project will be given by the Mobile District tomorrow morning at 10:30 am.

Once construction of the project has started, ongoing construction or construction of additional project segments is termed continuing construction. The design phase is underway or completed this past year for continuing construction of the following projects: Pinellas, Lee, Broward, and Duval Counties, the Delray Beach and Jupiter/Carlin segments of Palm Beach County and the Canaveral Harbor Sand Bypass System in Brevard County.

Pinellas County has 3 continuing construction projects. Those are the Sand Key project, Upham Beach which is a segment of Long Key, and Treasure Island. The local sponsor for Pinellas County is the Board of County Commissioners.

The Sand Key segment project consists of nourishment of 3 reaches of shoreline. The nourishment of Reach Number 1 of Sand Key, which consists of Redington Shores and North Redington Beach, was completed in August 1988. The initial construction of Reach number 2 of Sand Key was completed in December, 1990.

A feature design memorandum was completed in August, 1990, for the initial construction of Reach 3 along Indian Shores. Some delays were experienced while easement disputes were worked out with individual property owners. We now estimate construction initiation in the spring of 92. Once Reach 3 is finished, initial construction of the Sand Key portion of the Pinellas County project will be completed.

Renourishment of the Upham Beach renourishment project on Long Key was completed in April, 1991. 220,000 cubic yards was placed along 2,500 feet of shoreline.

A design study is underway for the Treasure Island project. Alternative designs for the northern end of Treasure Island are being assessed to determine the most economic means of shoreline protection for this area. This report is scheduled for completion in early 92.

The Lee County shore protection project consists of 3 segments--Gasparilla, Estero and Captiva Island. The Lee County Board of County Commissioners has expressed a desire to act as the local sponsor for the project segments on Gasparilla and Estero Islands. Consideration is being given in future budget requests for funding of preconstruction studies for these segments. The County has also requested that Little Hickory Island/Bonita Beach be considered for Federal project eligibility. In this case, the County has been advised to pursue a Congressionally authorized shore protection study.

In 1989, Captiva Erosion Prevention District, as the local sponsor for the Captiva Island segment, completed initial construction of the southern 2.7 miles and renourishment of the northern 1.9 miles of the island. A cost sharing agreement for this reimbursable work was signed Sept. 1, 1988. Federal reimbursement for this work is possible after final approval of the General Design Memorandum and appropriation of funds by Congress.

Initial construction of the Hollywood/Hallandale segment was accomplished by local interests in 1978. A locally prepared General Design Memorandum was completed and approved in 1990 for the first renourishment. The local sponsor completed this renourishment last month.

About 330,000 cubic yards of sand will be used to renourish the Atlantic Beach portion of the Duval County Project. Construction began last month and is anticipated to be complete within a couple of weeks (of this presentation).

Two segments of Palm Beach County are being designed by the local sponsor. These are the Delray Beach and Jupiter/Carlin segments. Local sponsors for these two segments are the City of Delray Beach and the Palm Beach County Board of Commissioners.

The local sponsor's schedule for construction of the third renourishment of Delray Beach is for a contract award in early 1992.

Currently, the General Design Memorandum for construction of the Jupiter/Carlin segment is under review by the Jacksonville District. Contract award is tentatively scheduled for Winter, 1992.

The Corps completed a design for extending and sand tightening the south jetty at Canaveral Harbor to provide additional retention capacity for northward moving littoral material. Work on plans and specifications and award of a construction contract will continue, contingent on additional Federal funding.

In addition, alternative methods of sand bypassing to help mitigate the shoreline erosion south of the harbor entrance are being developed. The most economical, efficient and environmentally sound alternative will be presented in a supplemental design memorandum. Continued work on the Supplemental Design Memorandum, preparation of plans and specifications and award of a construction contract is also contingent on additional Federal funding.

The final topic I would like to discuss is the Operations and Maintenance of Federal Navigation projects.

The navigation project for the Navy Homeport in Pensacola Bay was dredged in FY 90 by the Mobile District. In FY 91 approximately 3 million cubic yards of maintenance dredge material was removed and placed in the nearshore littoral zone off of Perdido Key. This maintenance dredging began in November, 1990 and will be complete this month (September, 1991).

In conclusion, I'd like to summarize the Corps placement of sand from both Federal navigation and shore protection projects onto Florida's beaches. In the 70's, the Corps placed 36.3 million cubic yards of sand. Since 1980, the Corps

has placed 44.5 million cubic yards, a notable increase of approximately 8.2 million cubic yards.

Shore protection projects scheduled for construction in 92 will add another 5.2 million cubic yards of material to the State's beaches. Also, planned maintenance dredging of several navigation channels will provide an additional 875,000 cubic yards of material. This brings the total to almost 51 million cubic yards of beach quality sand on Florida's shores since 1980.

The ability of the Corps of Engineers to place beach quality sand from maintenance dredging and from offshore borrow areas depends to a very large degree upon the cooperation, coordination, and support of local sponsors and the state of Florida. The shore protection program in Florida remains a healthy and integral component of civil works within the State.

This concludes my presentation.