

**PONCE DELEON INLET, FLORIDA  
VOLUSIA COUNTY  
NAVIGATION STUDY**

**FINAL FEASIBILITY REPORT  
WITH FINAL ENVIRONMENTAL ASSESSMENT**

**U.S. ARMY CORPS OF ENGINEERS  
JACKSONVILLE DISTRICT  
JACKSONVILLE, FLORIDA**

**JANUARY 1999**

## **PONCE DELEON INLET, VOLUSIA COUNTY, FLORIDA FINAL FEASIBILITY REPORT WITH FINAL ENVIRONMENTAL ASSESSMENT SYLLABUS**

A cooperative study has been conducted in response to a House Public Works and Transportation Committee resolution, dated May 21, 1991. The resolution requests review of the Corps reports pertaining to Ponce DeLeon Inlet to determine whether modifications to the recommendations presented in those reports are advisable. The reconnaissance report for the feasibility study was approved December 1993. In April 1994 funding was received to continue the feasibility phase of the study process. The purpose of the study is to determine the Federal interest in navigation improvements for the Ponce DeLeon Inlet Federal navigation project.

Problems addressed during the study include instability and erosion. These problems have created the need for frequent maintenance. They have also caused safety problems.

Early in the feasibility study navigation features that would satisfy planning objectives and constraints (measures) were identified. A no action plan was defined. The measures were combined into plans. The plans, referred to in the plan selection step of the formulation process as alternatives, were evaluated. The evaluation involved, in part, a comparison of alternative benefits and costs. Another round of evaluation took place after it was determined that there was no longer an opportunity for construction of a fishing park. The proposed fishing park had contributed both benefits and costs for the alternatives initially evaluated. The second round of evaluation included a refined no action (without project) alternative, a nonstructural alternative, and the alternative of construction of a 1,000-foot south jetty extension.

The selected plan would modify the existing Federal navigation project through construction of a 1,000-foot south jetty extension toward the ocean and parallel to the north jetty, with scour apron, placement of navigation aids, assumption of maintenance for the new work 1,000-foot ocean extension of the south jetty, with scour apron, and channel maintenance in natural deep water. The total initial cost of the selected plan is \$5,454,000, including construction and navigation aids. The currently estimated Federal share of the initial cost is \$2,988,000 and the non-Federal share is \$2,466,000. The currently estimated Federal share of the present worth value of operation, maintenance, repair, replacement and rehabilitation (OMRR&R) costs for the south jetty extension is \$35,000. The currently estimated non-Federal share of the present worth value of the OMRR&R costs for the south jetty extension is \$190,000.

Recommendations for modifications to the authorized project are the following: construction of a 1,000-foot south jetty extension toward the ocean and parallel to the north jetty, with scour apron; assumption of maintenance for the new work 1,000-foot ocean extension of the south jetty, with scour apron; and maintenance of channels in natural deep water.

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**PONCE DELEON INLET, FLORIDA  
VOLUSIA COUNTY  
FINAL FEASIBILITY REPORT**

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## SUPPLEMENTAL REPORTS

### NUMERICAL MODEL REPORT (Taylor Engineering, Inc.)

Ponce DeLeon Inlet Feasibility Study Numerical Modeling and Shoaling Analysis Volume I July 1966 (Chapters 1 - 6)

Ponce DeLeon Inlet Feasibility Study Numerical Modeling and Shoaling Analysis Volume II July 1966 (Chapters 7 - 9)

Ponce DeLeon Inlet Feasibility Study Numerical Modeling and Shoaling Analysis, Addendum 1 - ICWW Deepening and Flood Sinus Evaluations

### PHYSICAL MODEL REPORT (Coastal Engineering Research Center)

Physical Model Studies of Ponce DeLeon Inlet, Florida

### ENGINEERING BENEFITS (Taylor Engineering, Inc.)

Ponce DeLeon Inlet Feasibility Study, Engineering Benefits of the Proposed South Jetty Extension, July 1998