

Table 1 - Prior Studies and Reports

		CHIEF OF ENGINEERS	PUBLISHED DOCUMENTS				
<u>STUDY</u> ¹	ACTS	<u>RECOMMENDATIONS</u>	<u>TYPE</u> ² / <u>NO.</u> / <u>CONGRESS</u> / <u>SESSION</u>				
S	06/13/1902	Channel (Government Cut) 18 feet deep across peninsula and north jetty	H	662	56	18	
	03/02/1907	South jetty and channel 100 feet wide					3
S	07/25/1912	Channel 20 X 300 feet and extension of jetties	H	554	62	2	
S	03/03/1925	Channel 25 feet deep at entrance and 25 X 200 across Biscayne Bay	H	516	67	4	
S	07/03/1930	Channel 300 feet wide across Biscayne Bay and enlarging municipal turning basin	R&H	15	71	2	4
PE	08/30/1935	Depth of 30 feet to and in turning basin	S	73	2		5
S	08/26/1937	Widen turning basin 200 feet on south side	R&H	86	74	2	
S	03/02/1945	Virginia Key improvement	S	251	79	2	
S	03/02/1945	Consolidation of Miami River and Miami Harbor projects: widening at mouth of Miami River to turning basin and Government Cut; and channel from Miami River to the Harbor of Refuge	H	91	79	1	
S	07/14/1960	Channel 400 feet wide across Biscayne Bay; enlarge turning basin 300 feet on south and northeasterly sides; dredge turning basin on north side of Fisher Island; delete Virginia Key development and Dinner Key approach channel	S	71	85	2	
S	08/13/1968	Enlarging the existing entrance channel to 38-foot depth and 500-foot width from the ocean to the existing beach line; deepening the existing 400-foot wide channel across Biscayne Bay to 36 feet; and deepening the existing turning basins at Biscayne Boulevard terminal and Fisher Island to 36 feet	S	93	90	2	
FR	11/28/1990	Include Federal maintenance of the South Fisherman's channel for 9,200 feet westward of the Fisher Island turning basin; provide a channel 44 feet deep and 500 feet wide from the open ocean to the existing beach line; 42 feet deep and 500 feet wide from the beach line Cut 3 station 33+00 (near Fisher Island turning basin); and 42 feet deep and 400 feet wide from Fisher Island turning basin to the west end of the container berths located on Lummus/Dodge Island. The channel would terminate in turning basin with a depth of 42 feet and a diameter of	H	205	101	2	

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		1,600 feet.				
GRR	10/12/1996 Public Law 104-303	Provide a 34-foot deep channel over a 400-foot bottom width from the Lummus Island turning basin west about 1,200 feet				

1 Abbreviations are: PE = Preliminary Evaluations R = Reconnaissance Report
FR = Feasibility Report S = Surveys GRR = General Reevaluation Report
2 Symbols are: H = U.S. House of Representatives Document S = U.S. Senate Document
3 Specified in Act
4 R. & H. Comm. Doc. 15/71/2
5 S. Comm. Print 73/2

EXISTING WATER PROJECTS

12. Besides the Miami Harbor Federal navigation project, several other Federal water projects exist in the area that have an association with the Miami Harbor. Those projects include Miami River; Intracoastal Waterway, Jacksonville to Miami; Virginia Key and Key Biscayne Beach Erosion Control; and Dade County, Florida, Beach Erosion Control. Two potential water projects under consideration include Virginia Key, Section 111, and, Virginia Key, Section 1135.

MIAMI RIVER

13. The Miami River channel has a depth of 12 to 15 feet over a bottom width that varies from 90 to 170 feet. The total project length is about 5.5 miles. A 12-foot deep by 100-foot wide channel from Miami River provides access to a harbor of refuge in Palmer Lake.

INTRACOASTAL WATERWAY, MIAMI TO JACKSONVILLE

14. The Intracoastal Waterway Project is primarily a small boat channel that extends from Trenton, New Jersey to Miami, Florida along the east coast of the United States. That waterway has a bottom width of 125 feet and a depth that varies from 10 to 12 feet.

VIRGINIA KEY AND KEY BISCAYNE BEACH EROSION CONTROL

15. The Virginia Key and Key Biscayne Beach Erosion Control Project provides for Federal participation of 70 percent of the cost of periodic nourishment of 1.8 miles of beach on Virginia Key for an initial period of 10 years, and 70 percent of the initial cost of 3 groins on Virginia Key and 1 groin on Key Biscayne, construction of which is subject to future determination of their need. Also, provides for a protective beach fill along the southern 2.4 miles of shoreline at Key Biscayne with a variable berm width from 15 to 25 feet wide at elevation from 7 to 9 feet above mean low water and seaward slopes of 1 on 14 from the berm to the existing sea bottom; an anchor groin with additional rock to be placed as a subtidal habitat. Original nourishment portion of project deauthorized 1 January 1990.

DADE COUNTY, FLORIDA, BEACH EROSION CONTROL

16. The Dade County Beach Erosion Control Project provides for Federal participation in the cost of a project along the ocean shore of Dade County, Florida. It provides: a protective dune with a 20 feet crown at elevation 11.5 feet and side slopes of 1 on 5 down to a protective and recreational beach, with a level berm 50 feet wide at elevation 9 feet mean low water (mlw), and a natural slope seaward as would be shaped by wave action, all for beach erosion control and hurricane flood protection along the 9.3 miles of shore between Government Cut and Bakers Haulover Inlet; a protective and recreational beach with a 50 feet level berm at elevation 9 feet mlw, and a seaward slope as would be shaped by wave action, for beach erosion control along 1.2 miles of shore at Haulover Beach Park, periodic nourishment of both of the above reaches for an initial period of 50 years. Project modification provides for reimbursement to local interests for the appropriate federal share of costs of construction for beach fill and south jetty extension at Bal Harbour Village.

VIRGINIA KEY SECTION 111 STUDY

17. The Virginia Key Section 111 Study currently in progress will examine the results of feasibility studies conducted under the authority of the River and Harbor Act of 1968, as amended, to stabilize the shoreline in the vicinity of Virginia Key, Florida. Section 111 authorizes the study, design, and construction of work for prevention or mitigation of damages to both non-Federal public and privately owned shores to the extent that such damages can be directly identified and attributed to Federal navigation works located along the coastal and Great Lakes shorelines of the United States. Construction and maintenance of the Miami Harbor Federal navigation project has had an adverse impact on the shoreline at Virginia Key.

18. The study proposes modifications to stabilize the shoreline. The recommended plan consists of several features: (1) constructing 3 new timber groins, (2) placing approximately 3,000 cubic yards of material onto the beaches, and (3) removing and replacing 25 timber groins.

19. As provided by Section 111 authority, the cost of work to correct the erosion attributable to the navigation project at Miami Harbor will be a 100% Federally funded responsibility. The benefits consist of the stabilization of the shoreline at Virginia Key and the preservation of the historical Virginia Key Beach Park.

20. Potential sources of sand for the beach placement will come from the upland confined disposal facility on Virginia Key, which could receive sand from maintenance of the Miami Harbor Federal channels or from new construction modifications under consideration for the harbor in this report.

VIRGINIA KEY RESTORATION – CONTINUING AUTHORITY PROGRAM, SECTION 1135, MIAMI-DADE COUNTY

21. Currently in progress, the proposed project will consider restoration of native plant communities in selected areas on Virginia Key. These areas currently contain a high percentage of exotic vegetation, primarily Australian and Brazilian pepper. The restoration plan includes removing exotic vegetation from the environment and replacing them with the historic plant communities including mangrove, coastal strand, tropical hardwood, and aquatic/wetland species. The proposed project would restore tropical hardwood hammock, wetlands, coastal strand, freshwater pond and provide for selective clearing. This would provide a more suitable habitat for fish and wildlife resources than what currently exists.

PLAN FORMULATION

22. Section 904 of the Water Resources Development Act of 1986 requires the Corps to address the following matters in the formulation and evaluation of alternative plans:

- a. Enhancing national economic development, including benefits to particular regions that are not transfers from other regions.
- b. Protecting and restoring the quality of the total environment.
- c. The well-being of the people of the United States.
- d. The prevention of loss of life.
- e. The preservation of cultural and historical values.