APPENDIX A - SECTION 404 (B) EVALUATION

SECTION 404 (b) EVALUATION REPORT
CHANGE OF MAINTENANCE OPERATIONS
AT PALM BEACH HARBOR AND PEANUT ISLAND
PEANUT ISLAND. PALM BEACH COUNTY, FLORIDA

I. Project Description.

a. Location. Peanut Island is a 79-acre island created from dredged material placement over some time. It is located in Palm Beach, Section 15, Township 42 South, Range 43 East, Palm Beach County, Florida (Figure 1). Peanut Island is within the Lake Worth Lagoon Estuary, north of the Lake Worth Inlet Federal Channel and Turning Basin, 150 feet east of the Intracoastal Waterway, 1,500 feet west of Lake Worth Inlet. The Palm Beach Harbor is 600 feet east-southeast of the Peanut Island. Rivera Beach and Palm Beach Shores and Singer Island are the landmasses that flank Peanut Island to the west and east respectively.

b. General Description. The purpose of this project is to change the Palm Beach Harbor maintenance dredging operations from winter hopper dredging to summer pipeline dredging. Removal of dredged material from the Palm Beach Harbor Dredged Material Storage Area (DMSA) on Peanut Island to a depth of 4 feet MLW will also take place. Dike rehabilitation construction work will improve the existing dikes and construct new dikes to a height of 32 feet above MLW. This project will provide additional dredged material disposal area for future dredging operations at the Palm Beach Harbor in a very cost-effective manner.

c. Authority and Purpose. Authority for this project is covered by the 1996 Water Resources Development Act, as amended. The purpose of the authority is to maintain the existing project depths of the Palm Beach Harbor to the congressionally approved depths in the public interest.

d. General Description of Dredged or Fill Material. The proposed project will dredge the Palm Beach Harbor to the authorized depth during the summer season with a pipeline dredge. Placement of the dredged material into the existing Palm Beach Harbor DMSA on the southwest end of Peanut Island will occur after it has been offloaded and dikes rehabilitated. Roughly 600,000 cubic yards of dredged material currently within the Palm Beach Harbor DMSA will be dry offloaded on barges and deposited in the anoxic hole adjacent to the City of Lake Worth Municipal Golf Course and the IWW to the south of C-51. The material excavated from the maintenance dredging of the Palm Beach Harbor will consist of sandy material with some shell and rock. The project does not involve any extra areas of fill and the work will not result in any long term increases in turbidity.

e. Description of the Proposed Discharge Site. The dredged material removed from the Palm Beach Harbor will be dumped in the Palm Beach Harbor DMSA on Peanut Island after it has been offloaded and dikes rehabilitated. All recognized Best Management Practices (BMPs) applicable to project construction will be considered to ensure compliance with water quality certificate parameters before construction begins. Standard turbidity controls will be utilized during the project construction.

II. Factual Determinations.

a. Water Circulation, Fluctuation and Salinity Determination. Lake Worth is a tidal lagoon subject to tidal influence and freshwater inflows. Tidal waters enter the lagoon through the Lake Worth Inlet. Tides are semi-diurnal with a tidal fluctuation of every twelve hours during the tidal cycle. Salinity in the Lake Worth area ranges from 28.3 to 35.8 parts per thousand. The Florida Department of Environmental Protection (FDEP) maintains a tide gauge adjacent to the Lake Worth Inlet less than half a mile away from the proposed change of maintenance operations project.

b. Suspended Particulate/Turbidity Determinations. A temporary short-term increase in suspended particulates could occur in the water column during project construction. Once the excavated material has been removed from the harbor and settlement occurs, no significant long-term increase in turbidity is anticipated. Turbidity BMPs will be undertaken by the Federal contractor during the maintenance dredging of Palm Beach Harbor. The dry offloading of the material within Palm Beach Harbor DMSA and its disposal into the anoxic hole adjacent to the City of Lake Worth Municipal Golf Course should not pose a turbidity problem. Standard turbidity controls will be utilized during construction.

c. Contaminant Determinations. No toxic materials are a part of the materials to be removed from Peanut Island. Excavated soils will be placed in an upland placement area on Peanut Island. BMPs will be implemented by the contractor to prevent high levels of turbidity in the water column during project construction.

d. Aquatic Ecosystem and Organism Determinations. No long term adverse impacts on autotropic and heterotrophic organisms are anticipated. No adverse impacts on motile invertebrates are anticipated. No adverse impacts are expected on nekton organisms. The placement of the dry dredged material from the Port of Palm Beach DMSA is anticipated to raise the bottom elevations of the anoxic hole to a more productive benthic habitat.

e. Proposed Placement Site Determinations. The Port of Palm Beach dredged material will be placed in the Port of Palm Beach DMSA on Peanut Island. There are no adverse impacts anticipated to the project area resources as a result of the port dredging and placement of dredged material within the existing Palm Beach Harbor DMSA. The disposal of dry dredged material from the Palm Beach Harbor DMSA into the anoxic hole adjacent to the City of Lake Worth Municipal Golf Course and the IWW is not anticipated to adversely affect site specific or area natural resources. Standard turbidity controls will be utilized during construction.

f. Determination of Cumulative Effects on the Aquatic Ecosystem. The proposed project will not cause or contribute to violations of State Water Quality Standards, jeopardize the existence of any endangered or threatened species or impact a marine sanctuary. No significant degradation is expected and all appropriate and practicable steps will be taken to minimize impacts. No adverse affects to Federally listed threatened of endangered species will occur.

III. Findings of Compliance or Non-Compliance with the Restrictions on Discharge.

1. No significant adaptations of the Section 404 (b) guidelines were made relative to this evaluation.

2. There would be no discharge of toxic fill material in the project area. Therefore, the project complies with Section 307 of the Clean Water Act.

3. There would be no adverse impacts on the water supply of surrounding communities in the Lake Worth area from the implementation of this project.

4. There will be no direct or indirect adverse impact on any threatened or endangered organism from the implementation of this project (manatees or seagrass)

5. There should be no significant long-term adverse impact on any autotrophic organism from the implementation of the selected plan.

6. There should be no direct or indirect adverse impact on highly motile organisms such as fish and crustaceans.

7. No long-term significant direct or indirect adverse impacts are anticipated on non-motile infaunal organisms or motile epifaunal organisms in the immediate project area from the proposed project.

8. No significant adverse impacts are anticipated on terrestrial wildlife in the immediate project area.

9. Implementing the project poses no threat to juvenile fish or wildlife dependant upon the immediate project area for their subsistence.

10. No significant or long-term change in the biodiversity of the communities is anticipated due to the project construction.

11. On the basis of the guidelines, the proposed placement site for the discharge of fill material is specified as complying with the requirements of the Clean Water Act.