APPENDIX D-1
SECTION 404(b) EVALUATION

MT. SINAI MEDICAL CENTER, CONTINUTING AUTHORITIES PROGRAM (CAP) SECTION 14, PROJECT

DRAFT INTEGRATED FEASIBILITY REPORT AND ENVIRONMENTAL ASSESSMENT

September 2016

US Army Corps of Engineers ®
Jacksonville District

SECTION 404(b) EVALUATION
DRAFT ENVIRONMENTAL ASESSMENT
ON
MT SINAI MEDICAL CENTER
CONTINUTING AUTHORITIES PROGRAM (CAP) SECTION 14, PROJECT
DADE COUNTY, FLORIDA

I. Project Description

a. Location. The proposed work will be performed along the Biscayne Bay shoreline of Dade County, Florida. Project locations specifically include the existing seawall adjacent to Mt. Sinai Hospital. See Figure 1 in the main text.

b. General Description. The proposed work includes steel sheet pile driven on the waterside of the entire alignment of the existing seawall to an elevation of 4.0 feet NAVD88. The total length of the new sheetpile would be 3,200 feet driven to a depth of 16 feet with a 3 foot offset between it and the existing wall.At the northeast end of the driven sheetpile, a modification to S-1 (adding elevation) will be added; A T-wall will tie-in and continue landward to the 3.5 foot contour to prevent flanking of the seawall.

Authority.

d. General Description of Fill Material.

(1) General Characteristics of Material. Steel sheetpile and stone.

(2) Quantity of Material. Approximately 3,200 feet of steel sheetpile and 9,600 square feet of stone.

(3) Source of Material. To be determined.

e. Description of the Proposed Discharge Site.

(1) Location. Seawall adjacent to Mt. Sinai Hospital, Miami Beach, Dade County.

(2) Size. The total project area is approximately 3,200 linear feet of shoreline.

(3) Type of Site. Urban seawall along Biscayne Bay shoreline

(4) Type of Habitat. Shallow water habitat in an urban environment.

(5) Timing and Duration of Discharge. The exact timing of initial construction is not known.

f. Description of Disposal Method. Sheetpile would be driven by pile driver and stone backfilled between sheetpile and existing seawall. Work is anticipated to be performed from the land side.

II. Factual Determinations

a. Physical Substrate Determinations.

(1) Substrate Elevation and Slope. Details will be available with the final design.

(2) Sediment Type. Backfill material would be comprised of quarried stone.

(3) Dredge/Fill Material Movement. The seawall and backfill material would create a stable structure.

(4) Physical Effects on Benthos. The placement of the wall will result in the burial and loss of some infauna. However, encrusting organisms and other marine life will colonize the new structure. Corals 10cm and greater would be voluntarily relocated or provided to an educational institution.

b. Water Circulation, Fluctuation and Salinity Determination.

(1) Water Column Effects. Fill placement will not have long-term or significant impacts, if any, on salinity, water chemistry, clarity, color, odor, taste, dissolved gas levels, nutrients or eutrophication.

(2) Current Patterns and Circulation. Currents in the project area are both tidal and longshore.

(3) Normal Water Level Fluctuations and Salinity Gradients. Tides in the project area are semi-diurnal.

c. Suspended Particulate/Turbidity Determinations.

(1) Expected Changes in Suspended Particulates and Turbidity Levels in the Vicinity of the Disposal Site. There will be a potential temporary increase in turbidity levels during construction of the new seawall. Turbidity will be short-term and localized and no significant adverse impacts are expected. State standards for turbidity should not be exceeded during construction.

(2) Effects on the Chemical and Physical Properties of the Water Column.

(a) Light Penetration. There would be a temporary minor increase in turbidity along the shoreline during construction.

(b) Dissolved Oxygen. Dissolved oxygen levels will not be altered by this project.

(c) Toxic Metals, Organics, and Pathogens. No toxic metals, organics, or pathogens will be released by the project.

(d) Aesthetics. Aesthetic quality will be reduced during that period when work is occurring. There will be a long term increase in aesthetic quality of the seawall once the work is completed.

(3) Effects on Biota.

(a) Primary Productivity and Photosynthesis. The level of suspended particles will temporarily increase along the shoreline during construction. Suspended material will prevent light from reaching existing algae temporarily restricting photosynthesis and primary productivity in local areas.

(b) Suspension/Filter Feeders. Suspension feeders will experience minor short-term impacts during construction, but no long-term adverse impact.

(c) Sight Feeders. Visual feeders will experience short term impacts, but no long-term adverse impact.

(d) Contaminant Determinations. Deposited fill material will not introduce, relocate, or increase contaminants.

(e) Aquatic Ecosystem and Organism Determinations. No long term effects are anticipated to the aquatic ecosystem. The proposed fill material meets the exclusion criteria, therefore, no additional chemical-biological testing will be required.

(1) Effects on Plankton. Although minor short term effects (e.g., clogging of feeding appendages) on plankton are likely, no adverse long term impacts to planktonic organisms are anticipated.

(2) Effects on Benthos. Minor impacts to non-motile or motile benthic invertebrates are anticipated. However, encrusting organisms and other marine life will colonize the new structure. Corals 10cm and greater would be voluntarily relocated or provided to an educational institution.

(3) Effects on Nekton. No adverse long-term impacts to nektonic species are anticipated.

(4) Effects on the Aquatic Food Web. No adverse long-term impacts to any trophic group in the food web are anticipated.

(5) Effects on Special Aquatic Sites.

(a) Coral Reefs. There are no coral reefs located within the placement areas. However, individual corals 10cm or greater would be voluntarily relocated or provided to an educational institution.

(b) Sanctuaries and Refuges. There are no sanctuaries or wildlife refuges located within the proposed placement areas.

(c) Wetlands. There are seagrass beds located in the project area. Effects to seagrass would be minor (less than 0.05 acres).

(d) Mud Flats. There are no mud flats located within the proposed placement areas.

(e) Vegetated Shallows. There are seagrass beds located in the project area. Effects to seagrass would be minor (less than 0.05 acres).

(6) Endangered and Threatened Species. There will be no significant impacts on any threatened or endangered species from the proposed project or to designated critical habitat.

(7) Other Wildlife. No significant adverse impacts to small foraging mammals, reptiles, wading birds, or wildlife in general are expected.

(8) Actions to Minimize Impacts. All practical safeguards will be taken during construction to preserve and enhance environmental, aesthetic, recreational, and economic values in the project area.

f. Proposed Disposal Site Determinations.

(1) Mixing Zone Determination. The fill material will not cause unacceptable changes in the mixing zone specified in the Water Quality Certification in relation to: depth, current velocity, direction and variability, degree of turbulence, stratification, or ambient concentrations of constituents.

(2) Determination of Compliance with Applicable Water Quality Standards. Because of the inert nature of the fill material, State water quality standards will not be violated.

(3) Potential Effects on Human Use Characteristics.

(a) Municipal and Private Water Supplies. No municipal or private water supplies will be impacted by the implementation of the project.

(b) Recreational and Commercial Fisheries. Recreational and commercial fisheries will not be permanently impacted by the construction of the seawall.

(c) Water Related Recreation. Local waterborne recreation should not be affected by the proposed work.

(d) Aesthetics. The reconstruction of the seawall will improve aesthetics of the shoreline.

(e) Parks, National and Historic Monuments, National Seashores, Wilderness Areas, Research Sites, and Similar Preserves. There are no parks, national and historic monuments, national seashores, wilderness areas, research sites and similar preserves located within the project area.

(f). Determination of Cumulative Effects on the Aquatic Ecosystem. There will be no significant cumulative impacts that result in a major impairment of water quality of the existing aquatic ecosystem as a result of placement of fill at the project site.

(g). Determination of Secondary Effects on the Aquatic Ecosystem. No adverse secondary effects of the placement of the fill material are anticipated.

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

a. No significant adaptations of the guidelines were made relative to this evaluation.

b. No practicable alternative exists which meets the study objectives that does not involve discharge of fill into waters of the State of Florida and/or United States.

c. After consideration of disposal site dilution and dispersion, the discharge of fill materials will not cause or contribute to, violations of any applicable State water quality standards for Class III waters. The discharge operation will not violate the Toxic Effluent Standards of Section 307 of the Clean Water Act.

d. The project will not jeopardize the continued existence of any species listed as threatened or endangered or result in the likelihood of destruction or adverse modification of any critical habitat as specified by the Endangered Species Act of 1973, as amended.

e. The placement of fill material will not result in significant adverse effects on human health and welfare, including municipal and private water supplies, recreational and commercial fishing, plankton, fish, shellfish, wildlife, and special aquatic sites. The life stages of aquatic species and other

wildlife will not be adversely affected. Significant adverse effects on aquatic ecosystem diversity, productivity and stability, and recreational, aesthetic, and economic values will not occur.

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