

PRELIMINARY REPORT ON OPERATION OF HOPPER DREDGES
IN THE FREEPORT HARBOR CHANNEL PROJECT

DECEMBER 2005 – MAY 2006

On December 27, 2005 the contract hopper dredge *Stuyvesant* began work on the Entrance and Jetty Channels of the Freeport Harbor Project. Contract specifications required dredging an estimated 1,800,000 cubic yards (CY) of shoal material. The required depth of dredging was 49 feet below Mean Low Tide (MLT, Corps of Engineers Datum), with 2 feet of allowable overdepth dredging along the Entrance Channel and 47 feet MLT with 2 feet of overdepth along the Jetty Channel.

Dredging began on December 27, 2005, and was completed on May 20, 2006. Dredging operations were discontinuous during this time period. Two dredges were employed under this contract, they were the *Stuyvesant* and the *Eagle I*. The *Stuyvesant* worked from December 17, 2005 until February 7, 2006, dredging 1,911,091 CY of material in 567 loads. The *Eagle I* worked from May 15, 2006 until May 20, 2006, dredging 200,511 CY in 58 loads. A total of 625 loads of dredged material were collected and placed into Placement Area No. 1-A. A total of 2,111,602 CY of material was excavated from this project between Stations 78+63 along the Jetty Channel and (-)200+00 along the Outer Bar Channel.

The dredges were initially equipped with rigid draghead turtle deflectors, and 100% inflow screening with a 4-inch square mesh. NMFS-approved turtle observers provided 24-hour/day monitoring of dragheads and screens for each load cycle. The observers were employed by East Coast Observers, Inc. and Coastwise Consulting under subcontract to the dredging contractor, Bean Stuyvesant, L.L.C.

During the performance of this dredging, two green turtle takes were experienced by the *Stuyvesant*, but neither was lethal. Both were transported to the NMFS Galveston Laboratory for rehabilitation. The first take occurred on January 17 in load 339, and the second was February 2 in load 511. The surface water temperature during these takes was about 16.0°C. The observer reports for the *Stuyvesant* were previously provided. Reports from the *Eagle I* are enclosed.

Relocation trawling was conducted on a 24-hour daily basis during dredging operations. No turtles were captured or relocated. A bottlenose dolphin was netted on May 17, 2006 in *Mister B* tow number 55. During net retrieval, the dolphin became free, and afterward was observed swimming away normally.

Coordination was conducted with the Sea Turtle Stranding and Salvage Network (STSSN). There were no reports of stranded turtles that bore injuries consistent with a potential encounter with a hopper dredge.

An abundance of debris and clay caused excessive clogging of the screening aboard the dredge. Some of these screens were modified or opened to alleviate this problem. The resulting screening efficiency ranged from 0% to 50%. During these periods, 100% overflow screening was utilized.