

## PRELIMINARY REPORT ON HOPPER DREDGE OPERATIONS

### IN THE FREEPORT HARBOR CHANNEL PROJECT

OCTOBER 2007 – DECEMBER 2007

On October 12, 2007 the contract hopper dredge *Liberty Island* began work on the Entrance and Jetty Channels of the Freeport Harbor Project. Contract specifications required dredging an estimated 1,157,000 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 October 12, 2007, and was completed on December 4, 2007. Dredging operations were continuous during this time period. A total of 465 loads of dredged material were collected and deposited into Placement Area No. 1-A. Dredging was performed between Stations 78+63 along the Jetty Channel and (-)150+00 along the Outer Bar Channel. A total of about 1,415,421 CY of material was excavated from this project.

The dredge was 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. under subcontract to the dredging contractor, Great Lakes Dredge and Dock Co.

During the performance of this dredging, three turtle takes were experienced. The first was a green turtle on 2 November in Load No. 262. The water temperature was about 21.7°C. The second and third takes were Kemp's ridleys on 3 November in Load No. 285, and 4 November in Load No. 293, respectively. The water temperature was about 22.8°C for both.

In response to these takes, relocation trawling was initiated on November 7, 2007, and was performed on a 24-hour daily basis during dredging operations. A total of 430 tows were conducted. During this effort, no turtles were captured or relocated. There were, however, fragments of a single turtle retrieved from two separate tows (Tow Nos. 148 and 152). This turtle was judged to be a casualty of a large ship propeller, and not dredge related. For this reason, it is considered to be a stranding rather than a take.

Trawling and tagging data, observer and incident reports, can all be accessed at the USACE Sea Turtle Data Warehouse. The link is:  
<http://el.erdc.usace.army.mil/seaturtles/project.cfm?Id=577&Code=Project>.

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.

Material dredged consisted mostly of mud and clay. However, there were no indications that the clay caused any problem such as screen clogs.