

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

OCTOBER - NOVEMBER 1998

On October 11, 1998, the contract hopper dredge *Eagle I* began work on the Entrance and Jetty Channels of the Freeport Harbor Channel Project. Contract specifications required dredging an estimated 2,370,000 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 11, 1998, and was completed on November 26, 1998. A total of 864 loads of dredged material were collected and placed into Placement Area No. 1-A. Dredging was performed between Stations 30+00 along the Jetty Channel and -210+00 along the Entrance Channel. A total of 2,334,436 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 Coastwise Consulting, Inc. under a subcontract to the dredging contractor, Bean Horizon Corp./Stuyvesant Dredging Co. (Joint Venture).

During the performance of this dredging, one lethal loggerhead take was experienced. This take occurred on October 29, in load No. 358. This turtle was taken from the Entrance Channel within 5,600 feet of the end of the jetties. The water temperature was about 24°C. A copy of the daily and weekly observer reports is enclosed.

The observers reported that the dredge picked up abundant amounts of trash, which fouled the screens and required manual removal. There were also reports of excessive quantities of heavy clay being dredged to the extent that the observers requested larger openings in the inflow screens. Historically, the turtle observers have reported difficulties with clay in this channel, but not to the degree reported for this contract. It is unclear why clay would be encountered during a maintenance dredging project, since no new digging should occur. However, there have been anecdotal reports that during towing of jackup drilling platforms, the legs might have scraped the side slope of the channel displacing clay into the area to be dredged. Authorization to increase the screen mesh size was not granted, consequently, the boxes were periodically opened during dredging to clear the boxes of accumulated clay.

Toward the end of the dredging operations, the starboard draghead was damaged. A replacement draghead was utilized for about two days (November 24 and 25) without a turtle deflector.