

PRELIMINARY REPORT ON OPERATION OF HOPPER DREDGES  
IN THE BRAZOS ISLAND HARBOR PROJECT

FEBRUARY 2007 – MARCH 2007

On February 20, 2007, the contract hopper dredge *Padre Island* began emergency dredging on the Jetty Channel of the Brazos Island Harbor (BIH) Project. Contract specifications required dredging an estimated 500,000 cubic yards (CY) of shoal material. The required depth of dredging was 46 feet below Mean Low Tide (MLT, Corps of Engineers Datum), with 2 feet of allowable overdepth dredging.

Dredging began on February 20, 2007, and was completed on March 15, 2007. Dredging operations were continuous during this time period. A total of 171 loads of dredged material were collected and deposited into the nearshore berm at Placement Area 1A. Dredging was performed between Stations -0+600 and -4+600. A total of 443,000 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, six lethal turtle takes were experienced, five greens and one loggerhead. The first take occurred on February 22 in load 21, the second was on March 1 in load 74, the third was on March 6 in load 102, the fourth take occurred March 12 in load 154, the fifth take was a loggerhead on March 14 in load 167, and the sixth occurred on March 15 in load 169. The surface water temperature during these takes was about 17.8° - 20.6°C. On February 21, some decomposed parts of a turtle were retrieved. The conjecture is that this was a loggerhead, but was not considered to be a dredge-related death. Copies of the observer and incident reports are contained in the enclosed CD.

Relocation trawling was conducted on a 24-hour daily basis prior to, and during dredging operations. Trawling operations were initiated on February 18, after the third dredge take, a contract option was exercised to add an additional trawler. The second trawler commenced work on March 10. Both trawlers worked on a 24-hour daily basis. Operation of these vessels was coordinated to provide better channel coverage, and provide opportunity to release captured turtles while maintaining continuous trawling by at least one boat. None of the dredge takes occurred while captured turtles were being transported for release. A total of 65 turtles were tagged and relocated, including two recaptures; all but one were green turtles, the other was a Kemp's ridley. Copies of the trawling summary reports, containing Tag Nos., are also on the enclosed CD.

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.

There were several occasions when the screens were reported as kept open as a result of debris and clay clogging the inflow screening. But, the mesh size was not adjusted and 100 percent overflow screening was maintained.