

**ANTILLEAN MANATEE WATCH PROGRAM**  
**Report XVII**

**October 25, 2006 to November 10, 2006**

**Ponce Bay Dredging Activities**  
**Port of the Americas**

Presented by:



**NOVEMBER 2006**

## **Introduction**

The Antillean Manatee Watch Program (MWP) at Ponce Bay has been designed to minimize and/or avoid possible impacts to the Antillean Manatee (*Trichechus manatus manatus*) during the dredging activities in the bay as part of the Port of the Americas (PLA or the Project) project. This MWP was developed to comply with Special Condition 9 of the US Army Corps of Engineers (USACE) permit SAJ-2002-6525. The US Fish and Wildlife Service (USFWS) approved the MWP protocol on June 2005. This report covers the period from October 25 to November 10, 2006.

## **Methodology**

A team of two (2) observers surveyed a 100-meter perimeter, or safety zone, around the dredging operation seven days a week during daylight hours (the dredging operation takes place 24 hours a day and seven days a week). The observers are stationed on each end of the barge, one on top of the galley (stern) and the second on the dredging crane, next to the dredge operator's station (bow). This setting provides a 360°-visibility survey area. Each team surveys the bay one hour before dredging operation's day shift start at daybreak. Observers switch positions every two hours in order to maximize the sighting effort and minimize the visual strain of the observers. Daily monitoring ends one hour after sundown.

Data is recorded daily and written in a special MWP field sheet. The location of any manatee within the bay is plotted on a nautical map of Ponce Bay. The observer team records weather conditions, visibility and sea conditions, as well as information related to the manatee sightings: behavior, number of individuals, time of observation, etc. Copies of the field sheets are included in the Appendix.

Once an observer makes the initial contact of a manatee, he/she will communicate with the other observer and point the location of the animal(s). The observer with the best view will monitor the individual(s) while the second observer monitors for other manatees in the bay. When a manatee is confirmed to be within the 100-meter safety zone, immediate orders are given to stop the dredging operation. Operation of the dredge re-initiates after a 30-minute wait period once all manatees have left the safety zone.

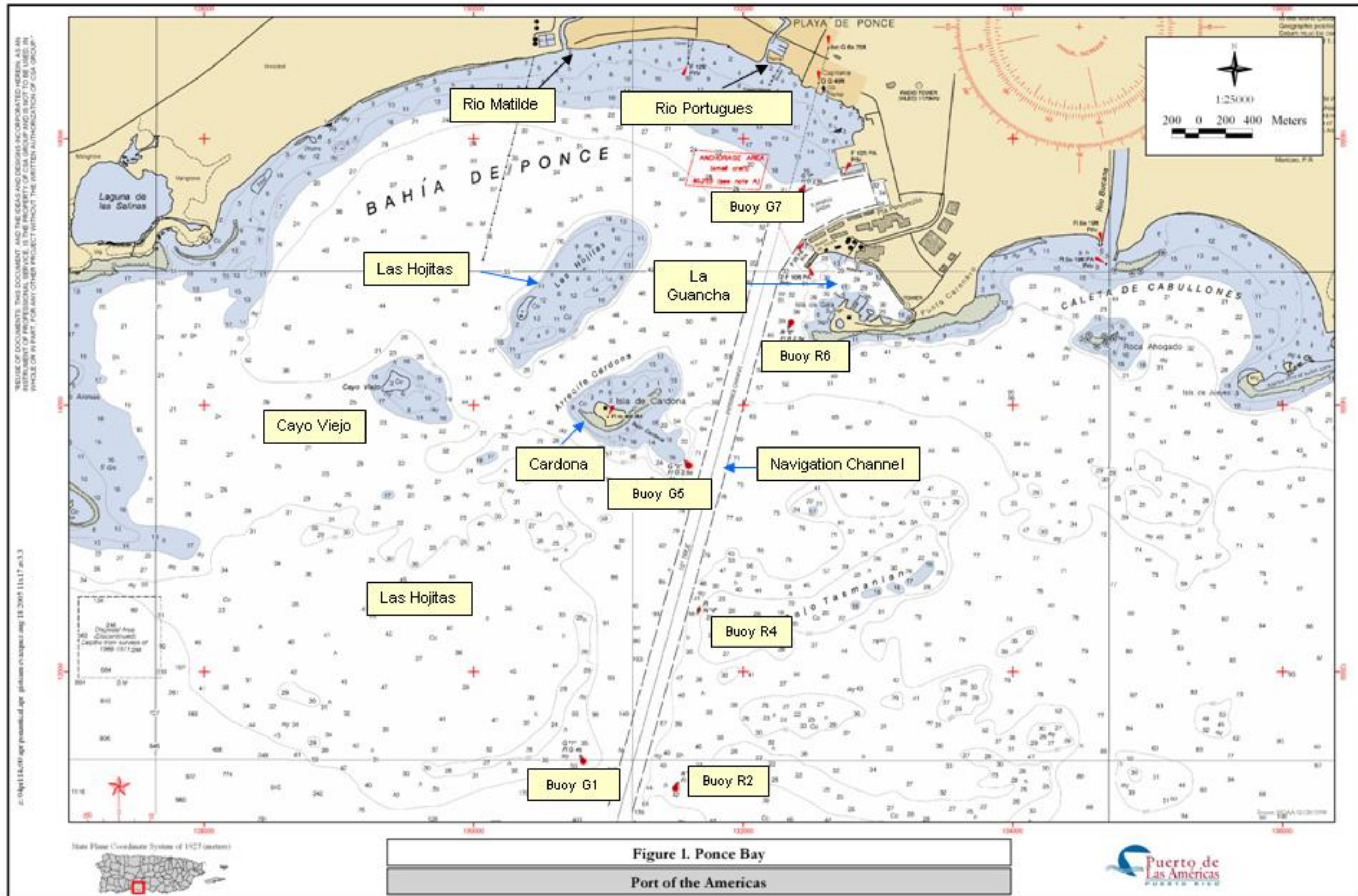
## **General results**

During the seventeenth and final month of survey, observer teams reported a total of 1 sighting (event). In this event, a single manatee entered the 100-meter safety zone. Table 1 provides a summary of the event.

**Table 1. Summary of Antillean Manatee sightings at Ponce Bay during dredging operations between October 25 and November 10, 2006.**

Date	Time	# individuals	In Safety Zone	Behavior	Other Species
11/05/2006	0835 - 0905	1	Yes	An individual was observed traveling approximately 80 meters from the barge, moving southwest toward Pier 2 area. The manatee was lost from sight after it dove.	Common Tern, Magnificent Frigatebird.

Manatee sightings in the vicinity of the dredging operation were minimal during this month's survey. The only sighting was related to an individual traveling toward Pier 2. No indications of other behavior were noticed. Other species reported this month, include Common Tern and Magnificent Frigate bird. Dredging operations were conducted close to the pier area



# Appendix

Manatee Watch Program Field Data Sheet



Date: Nov. 5, 2006

Observers: Capt. CRUZ

Position: Start: 17° End: 66°

Shift: 0800-0800  0800-1000  1000-1200  1200-1400  1400-1600  1600-1800

Place: Crane  Roof  Other:

Weather Conditions: Sunny  Partly Cloudy  Cloudy  Rain  Hazy

Sea Conditions: Surf 1 ft

Visibility: Good (10ft+)  Fair (5-10ft)  Low (1-5ft)  None (Surface - 1ft)

Color: Blue  Green  Gray  Brown

Glare: Yes  No

Turbidity: High  Low

Suspended Sediment Fan In Dredge Area: 14 m x 22 m

Conditions on Land: Clear Blue sky  Partially Cloudy  Cloudy  Rain  Hazy

Visibility: Good  Fair  Low  None

Operation Status: Dredging  Not Dredging  Time Stopped 0835 Time Resumed 0905



30-Minute wait period: Yes  No

Scow Change:  Time: \_\_\_\_\_

Manatee: Yes  No  Inside Perimeter: Yes  No  Number of Manatees: 1

Other Notable species: magnificent Frigatebird, common Tern

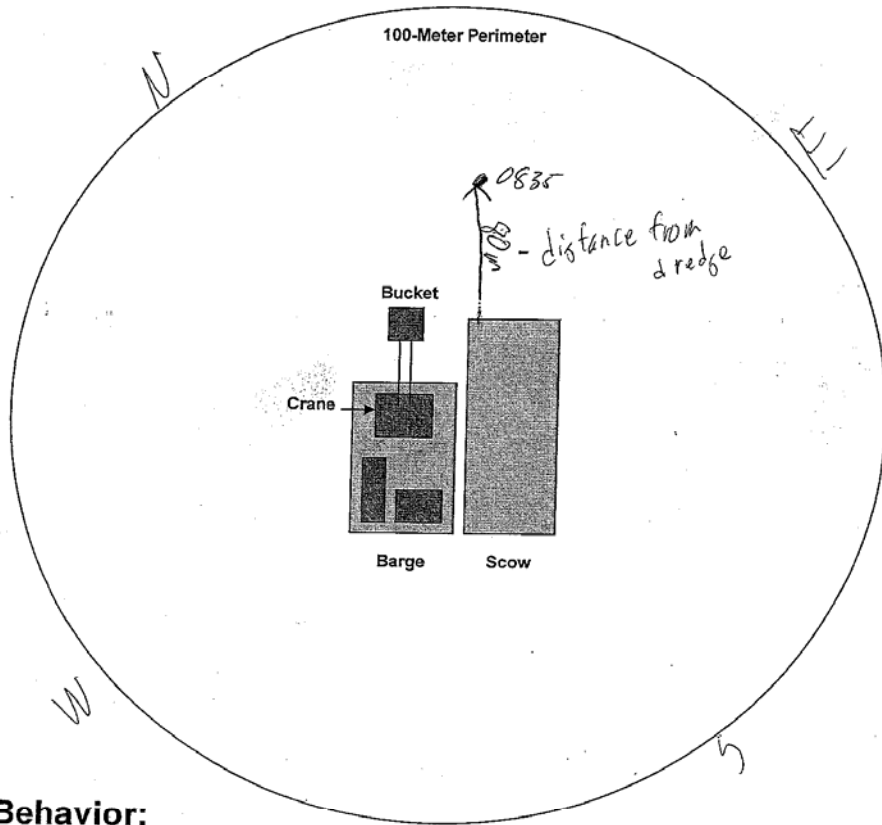
Barge Coordinates & Remarks:  
Too much glare saw the manatee inside  
perimeter

\* All fields must be checked.

Date: Nov. 5 2006  
Observer: Capt. Clark

### Manatee Location Drawing

Put dot to locate position and an arrow to indicate manatee direction



#### Behavior:

Manatee traveling from lead towards dredge  
took deep dive and not seen again. The glare  
was very intense. Moved around the crane but  
couldn't spot him.