



July 2008

PARTNERS: The U.S. Army Corps of Engineers, the County of Orange, the California Department of Fish & Game and the California Coastal Conservancy are serving as the federal, state and local partners to restore and enhance Upper Newport Bay's ecosystem.

CONSTRUCTION STATUS: The Corps of Engineers' construction contractor, DD-M Crane & Rigging began construction activities April 2006. Areas of construction include sediment basins, restoration channels around islands, wetland restoration areas, and island creation/improvement. Estimated completion of current work is early 2008.

Sediment Basins. In order to meet current TMDL limits, the two sediment basins have been sized for a capacity to capture incoming sediments, such that the need for maintenance dredging will be based upon a 21-year cycle. The access channel to the Unit II Basin was dredged during April 2006. The access channel within the Unit II Basin and the New Least Tern Island Pit has been dredged. The clamshell dredge DB-3 finalized dredging sediments from Unit II Basin in December 2007. A portion of Unit I/III Basin was dredged with the 10-inch hydraulic cutter suction dredge in March 2007, and the clamshell dredge DB-3 finished the initial contracted portion of Unit I/III. Additional dredging of Unit I/III Basin will continue into August or September 2008, however the completion of Unit I/III will not occur until additional funding to complete the basin is obtained. The sediment basins are being deepened to about -17 feet MLLW and the access channels are about 100 feet wide and about -11 feet MLLW in depth.

Restoration Channels. The islands in the Upper Bay are nesting areas for endangered species. The channels surrounding the islands had shoaled and needed restoration to depths to protect the islands from predator access during low tides. The depth of the side channels are about -2 feet MLLW and have varying widths. The side channels around Middle Island, Shellmaker Island, and New Island were dredged from May 2006 to July 2006. The Hotdog Tern Island Restoration Channel was completed in April 2007. Middle Island and Shellmaker Island Restoration Channels are awaiting final acceptance.

Wetland Restoration Areas. Years ago, prior construction activities disposed of the dredged material on top of mudflat areas. This project includes removal of some of these materials to restore the area to mudflat again. Bullnose West has been cleared of vegetation, and the hydraulic dredge removed sediments from the area to restore to mudflat by November 2007. Shellmaker Island and 23rd Street Wetland Restoration areas have been completed and are awaiting final acceptance.

Least Tern Island Creation/Improvement. Hotdog Tern Island required resurfacing in order to become a more viable habitat for the California Least Tern, an endangered species. Clearing the vegetation, grading of on site materials, and placement and grading of coarser-grained sand cap was performed and completed in April 2007. Construction of the New Least Tern Island, located adjacent to the main dike next to Basin II, is complete and awaiting final acceptance.

Material disposal. The majority of dredged sediments are being disposed offshore at LA-3, with the use of towed disposal barges. Two 1000 cubic yard scows and one 3000 cubic yard scow

are currently being utilized for disposal operations. The disposal barge moorage area previously located immediately south of Harbor Island has been relocated to deeper water west of Harbor Island. The Lower Bay moorage area will continue to be used, but less frequently, to accommodate the disposal barges as they await appropriate tide levels to transit upstream to the Upper Bay work area. By July 2008, over 1 million cubic yards of material have been removed from the Upper Bay by the dredging of the access and side channels, sediment basins, and wetland restoration areas. The dredged material is currently being placed either at the LA-3 ocean disposal site, located 5-miles southwest of the entrance to Newport Harbor. 23rd Street Wetland Restoration material was placed in three locations: some of the excavated material was used to construct the New Least Tern Island; some of the excavated sand material was placed nearshore for nourishment of the West Newport Beach; and the excavated fine materials were disposed of at LA-3.

FEATURE BENEFIT: The dredging of the side channels around Middle Island, Shellmaker Island, New Island, and Hotdog Tern Island will increase habitat for aquatic species, improve tidal circulation and isolate the islands from terrestrial predators such as dogs, cats, raccoons and coyotes. These channels were designed to be deepened to minus 2.23-ft MLLW, which is a depth that will provide at least two feet of water in the side channels during average low tide. Dredging of the Sediment Basins will allow for the capture of sediments discharged from San Diego Creek which currently find their way to the Lower Bay, and which settle in other areas within the Upper Bay resulting in unwanted habitat changes. At the beginning of the restoration project, both of the sediment control basins, Unit II Basin and Unit I/III Basin, were at capacity and were no longer functioning as sediment catch basins. To date, Unit II Basin has been dredged to function again as a sediment catch basin.

Although the affects of the project on biological resources cannot be measured until after the project is completed, some positive biological affects have been observed. The California least terns have been monitored for the last three years, and the number of nests and fledglings has increased. 2008 observations note the number of chicks that have fledged is up this year, to approximately 20 chicks. This is considered a successful reproductive season for the California least tern at this site.

QUESTIONS AND ANSWERS



Typical sign posted at Restoration Channels and hawk. Note: Birds only past this point. Photo by Andrew Hunt, DD-M, 7 October 2006

Question #1: There are signs posted prohibiting boaters, canoeists and kayakers from proceeding beyond the disposal barge within the Upper Bay (Back Bay). Why is this prohibition in place and will there be opportunities in the future for water craft to visit areas in the Upper Bay upstream of dredge operations?

Answer #1: For safety reasons, water craft in the Upper Bay (Back Bay) need to remain downstream of the disposal barge. The submerged pipeline leading from the dredge platform to the disposal barge can at times unexpectedly surface, potentially causing harm to water craft floating above the pipeline. Prohibiting boaters, canoeists and kayakers from transiting upstream of the disposal barge will eliminate this hazard to water craft. However, restricted boating access to the Upper Bay (Back Bay) is permitted during times the dredge contractor is not scheduled to work, normally on Sundays and holidays. These restrictions generally include: 1) boating is limited to non-motorized water craft and a 5 MPH speed limit; 2) boating is permitted in the main channel up to the Main Dike (Top of Unit II Basin); and, 3) boating is not permitted in side channels or anywhere from the Main Dike to Jamboree Road. Additionally, guided group tours of the Upper Bay (Back Bay) are allowed upstream of the disposal barge during operating hours for the dredge, only if the tour group has obtained a permit from the California Department of Fish & Game for transit, and adheres to the protocol of notifying the dredge platform on Channel 82 upon approach to the dredge and/or disposal barge.



DB-3 dredging Unit II Sediment Control Basin, 29 August 2007



View inside scow being loaded with sediment for disposal at LA-3, 8 June 2007

Question #2: What is the equipment in the Unit II and Unit I/III Basin?

Answer #2: DD-M Crane and Rigging has brought in a clamshell dredge to deepen the Sediment Control Basins. The clamshell dredge began dredging on September 15, 2006. Materials are placed in either a 1000, 1500 or 3000 cubic yard scow, and hauled and disposed of at LA-3 Ocean Disposal Area. The hydraulic cutterhead suction dredge will continue to be utilized for various parts of the construction. There is no impact to the overall schedule for completion of this phase of the project.

Question #3: What is happening to the open space area off Constellation Drive?

Answer #3: This area is referred to as 23rd Street Wetland Restoration Area. In the 1960's, dredged material from Basin II was placed upon mudflats in this area and the project includes restoring part of this area to original mudflat. Some of the work conducted to date is clearing of vegetation in the construction zone, dredging of the access channel to the 23rd Street site, and excavation and pumping of some of the prior dredge spoils to the New Least Tern Island site.



23rd Street Wetland Restoration, Photo by Andrew Hunt, DD-M, January 2008

OTHER CONSTRUCTION PICTURES



Dredging Hotdog Tern Island Restoration Channel and resurfacing Hotdog Island, Photo by Keane Biological, March 2007



Construction Equipment and temporary bridge, Hotdog Island, Photo by Keane Biological, 15 March 2007



Hotdog Island with beginning of sand capping, Photo by Keane Biological, 3 April 2007



Hotdog Island with sand capping completed, Photo by Keane Biological, 28 April 2007



Hotdog Island chick shelter tiles placed, Photo by Keane Biological, 28 April 2007



Aerial View Bullnose West Wetland Restoration, August 2007



Hydraulic Dredge "Pelican" dredging Middle Island Restoration Channel, May 2006

WEB SITE: For additional information on the Upper Newport Bay Ecosystem Restoration project please go to one of the following web sites:

<http://www.city.newport-beach.ca.us/UpperBayProject.html>

<http://www.spl.usace.army.mil/uppernewport.htm>

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