

CALENDAR ITEM

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**FIRST-YEAR REPORT UPDATE ON THE BIOLOGICAL, PHYSICAL,
AND BEACH MONITORING FOR THE BOLSA CHICA LOWLANDS
RESTORATION PROJECT NEAR HUNTINGTON BEACH**

**BOLSA CHICA REPORT
YEAR 1, OCTOBER 2006 THROUGH SEPTEMBER 2007**

(Presented to the State Lands Commission October 16, 2008)

The Bolsa Chica Lowlands Restoration Project (Project) has been open and operating for two years. Opening to the ocean occurred August 24, 2006. Interests in both the Project's success and permit requirements warrant an extensive evaluation of the Project and how it is meeting objectives at this time.

The Commission and its staff have been actively involved with the Bolsa Chica starting with the first boundary settlement discussions in 1970 and title settlement in 1973.

Commission contractor Merkel & Associates has completed the report on the first-year of operation. The dates covered by the report, October 1, 2006 through September 30, 2007, are prescribed by permit conditions of the California Coastal Commission and Army Corps of Engineers. This report is a thorough review of the conditions existing after one year of operation. It reveals no problems with the Project.

The Project at this point appears to be fully effective in achieving the goals established for the Project at its inception. Monitoring of Project performance consisted of three major fields: Biological Monitoring, Physical Monitoring and Beach Monitoring. These were further broken down into tasks, and the findings regarding each, as outlined below.

Water Quality – All parameters were well within acceptable ranges for developing high value fish, invertebrate and vegetative communities and are indicative of a well-flushed marine environment.

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Vegetative Habitat – It is too soon in the wetlands operation to determine how well the habitat and vegetation communities will develop after planting with relocated material. Successful establishment should accelerate in future years based on experience at other restoration sites.

Fish Community – A total of 4,426 fish were captured, evaluated and released, and represented 18 species. Most were first-year specimens indicating early population is from larval and juvenile recruitment rather adult fish.

Benthic Community – Monitoring in this category will begin in the second year.

Avian Community – A total of 7,256 birds were counted in October 2006. By December, migrating and wintering birds increased the total to 9,333. Targeted species of concern; Beldings savannah sparrows, western snowy plover and California least tern, occupied most of the area available to them. Beldings sparrow utilized the pickleweed areas where they exist on the site. Snowy plover and least terns, while numerous have yet to adapt fully to the new areas created for them.

Inlet Flood Shoal – As expected, the flood shoal accumulated about 220,000 cubic yards in the first year. This accumulation together with that of the second year since September 2007 (a total of 300,000 cubic yards) will be removed by dredging in the fall of 2008. Excavated sandy material will be deposited on the beach down coast from the inlet jetties. Dredging may occur until March 2009.

Tidal Monitoring – Recorded tidal elevations were very close to the predicted conditions on opening the inlet. In general, the Project has met the goal of a full tidal range in the Full Tidal Area. Muting has occurred over time as the flood shoal has built up and will be eliminated with the dredging work.

Beach Monitoring – One concern for the Project is that the inlet jetties could cause erosion of the down coast sandy beach. This beach and an offshore ebb bar were pre-filled with sand during the restoration construction to help avoid this erosion. Beach width measurements were taken monthly over the report period. The beach width remained well above minimum width throughout the period. It appears that erosion here is unlikely to trigger a need for additional material. However, during the fall dredging work, excavated material will be placed on the beach down coast from the jetties.