

**INFORMATIONAL
CALENDAR ITEM
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R. B. Greenwood

**STAFF REPORT ON THE
MONITORING OF POSSIBLE SUBSIDENCE,
LONG BEACH UNIT, WILMINGTON OIL FIELD,
LOS ANGELES COUNTY**

PARTY:

California State Lands Commission
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825-8202

BACKGROUND:

Long Beach and vicinity experienced regional ground elevation changes (subsidence) due to groundwater withdrawal, sediment compaction, and folding and faulting since 1929. The first definitive subsidence that could be attributed to oil production was in the West Wilmington Oil Field in 1947. Early 1950's repressuring operations (injecting water) resulted in the cessation of subsidence in the Long Beach area by 1965. The East Wilmington Oil Field (Long Beach Unit) was first developed in 1965, pursuant to 1964 agreements between the State, City of Long Beach and the Field Contractors. These agreements included oil field pressure maintenance (and subsidence control) by constant water injection. The City and the field contractor (Oxy) meet on a monthly basis to maintain subsidence control by adjusting water injection to prevent changes in ground elevation. This six month report is a presentation of subsidence control effectiveness.

The City of Long Beach conducts surveys twice each year, in May and November, for the purpose of monitoring changes in ground elevation of the Long Beach tidelands and adjacent areas. The Commission's staff reviews and interprets the benchmark elevation data from these semi-annual surveys. This report covers benchmarks surveyed in May 2011 and compares elevation changes that have occurred since completion of the previous survey in November 2010.

A portion of the Civic Center area experienced an elevation gain of up to 0.10 foot (1.2 inches). The western portion of the Harbor District, Piers A, S, and T, experienced an elevation increase of up to 0.12 foot (1.4 inches). Regular elevation surveys indicate that the minor elevation increases are not deviations from historical movements that are likely products of regional geologic action.

The results of the next regular elevation survey, to be conducted in May 2012, will be reported to the Commission after the data have been received and analyzed by the Commission's staff.

EXHIBIT:

- A. Location Map

