

**INFORMATIONAL  
CALENDAR ITEM  
C60**

10/20/03  
W10436  
V. Duda

**CALIFORNIA STATE LANDS COMMISSION  
(INFORMATIONAL)**

**Calendar Item C60 is an Informational Item only with no  
action taken.**

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**STAFF REPORT ON THE  
MONITORING FOR 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:**

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

The May 2002 elevation survey was the first use of only Global Positioning System (GPS) satellite equipment. Reprocessing of the May 2002 benchmark data has shown that these elevation results lack the accuracy required for the elevation monitoring. It was determined that the older GPS survey equipment was unreliable in linking and networking to the five permanent new technology GPS stations. Therefore, there is no one-year comparison.

The November 2002 survey was delayed for almost two months while waiting for new GPS survey equipment purchased in December 2002. This report covers benchmarks surveyed in May 2003 and compares elevation changes that have occurred since completion of the survey in January 2003.

Elevations were stable throughout most of the Harbor District. The center of Pier T had minor elevation losses of up to -0.025 feet (-0.30 inches) due to residual redevelopment settling and full-scale container use of the area by Hanjin.

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Minor elevation losses of up to -0.032 feet (-0.384 inches) continued over the curtailed Tar steam flood area west of Henry Ford Avenue. The steam flood, initiated in the 1980's, was terminated in 1999 due to subsurface shale compaction caused by high temperatures derived from the steam injection.

The Civic Center, Oil Islands and most of the Central City remained stable. A localized area between 7<sup>th</sup> Street and Anaheim Street along Cherry Avenue gained over 0.05 feet (0.60 inches) in elevation. The Alamos Bay and Naples Island area gained up to 0.05 feet (0.60 inches). This elevation gain may be due to higher net water injection rates during the period and/or tectonic movements.

The results of the next regular elevation survey, to be conducted in November 2003 will be reported to the Commission after the data have been received and analyzed by the Commission's staff.

**EXHIBIT:**

A. Location Map

**PERMIT STREAMLINING ACT DEADLINE:**

N/A

