



Legislation Text

File #: 10-1033, **Version:** 1

Recommendation to receive and file the report, Elevation Changes in the City of Long Beach, November 2009 through April 2010. (Citywide)

The City of Long Beach (City), through the Long Beach Gas and Oil Department (LBGO), supervises oil production and subsidence control operations in the Wilmington Oil Field.

LBGO conducts elevation surveys every six months to monitor elevation changes in the oil fields and adjacent City areas. This report focuses on elevation changes that have occurred from November 2009 through April 2010. The LBGO survey includes the following areas: Civic Center, Central City, Alamitos Bay, Naples, Harbor District, and an offshore area encompassing the four offshore oil islands.

The results of the six-month survey show that elevations were stable in the Civic Center, Central City, Alamitos Bay, Naples, and offshore areas. The Harbor District was stable except for two areas of minor elevation change. Piers D, E, F, and H experienced an elevation increase of up to 0.065 of a foot (0.78 of an inch). The elevation change was due to the increased water injection from the newly completed water injection wells' rebound of prior elevation decreases caused by the Middle Harbor Project clearing of Pier E wells. These injection volumes have been normalized. Portions of Piers A, S, and T experienced an elevation loss of 0.070 of a foot (0.84 of an inch). LBGO is mitigating the elevation change in this area by increasing water injection requirements.

The LBGO survey uses a series of benchmarks to determine elevation changes. Studies by the Department's engineers and geologists show that the benchmarks may rise and fall in such a manner as to make a survey either optimistic (slightly up in elevation) or pessimistic (slightly down in elevation). These changes in elevations may be associated with tidal cycles, temperature changes, and/or deep earth tectonic changes or repressuring operations. Surface elevations in a rebounded area can be expected to fluctuate under changing water flood conditions.

City Council action on this matter is not time critical.

There is no fiscal impact and no local job impact associated with this action.

Approve recommendation.

CHRISTOPHER J. GARNER
DIRECTOR OF LONG BEACH GAS AND OIL

APPROVED:

PATRICK H. WEST
CITY MANAGER

