



## Legislation Text

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**File #:** 18-0157, **Version:** 1

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Recommendation to receive and file the report, "Elevation Changes in the City of Long Beach, November 2016 through October 2017." (Citywide)

The City of Long Beach, 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 2016 through October 2017. The LBGO survey includes the following areas: Civic Center, Central City, Alamitos Bay, Naples, Harbor District, and the offshore area encompassing the four oil islands.

The results of last two six-month surveys indicate that elevations were stable in the Civic Center, Central City, Alamitos Bay, and the offshore area. During the second half of the year, the Naples area experienced an elevation loss of up to 0.06 foot (0.7 inch). The area is outside oilfield boundaries and the decline is not oilfield related. The Harbor District was stable for the year, except for the central harbor area. Piers B, C, D, S, and T experienced an elevation increase of up to 0.11 foot (1.3 inches) during the year. The increase may have been due to increased water injection in the area. Cessation of dewatering activities associated with construction of the new Gerald Desmond Bridge and a wetter-than-normal rain season may have also impacted elevations locally. Waterflood requirements will be reviewed and adjusted as necessary to ensure there is no over-pressurization in the oil producing zones.

The LBGO survey uses a series of benchmarks to determine elevation changes. Studies by the Department's engineers and geologists show 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, drought, temperature changes, deep earth tectonic changes, dewatering activities, and/or re-pressuring operations in the oil field. Surface elevations over the active Wilmington Oil Field can be expected to fluctuate under changing water flood conditions.

This matter was reviewed by Deputy City Attorney Richard F. Anthony on January 23, 2018 and by Revenue Management Officer Geraldine Alejo on January 24, 2018.

City Council action on this matter is not time critical.

There is no fiscal or local job impact associated with this recommendation.

Approve recommendation.

ROBERT DOWELL  
DIRECTOR OF LONG BEACH GAS AND OIL

APPROVED:

PATRICK H. WEST  
CITY MANAGER