

**CALENDAR ITEM  
C125**

A 54, 55

S 27, 28

06/23/11  
W 10443  
R. B. Greenwood

**CONSIDER PRIOR APPROVAL OF SUBSIDENCE COSTS  
FOR VERTICAL MEASUREMENTS AND STUDIES,  
2011-2012 FISCAL YEAR, CITY OF LONG BEACH,  
LOS ANGELES COUNTY**

**APPLICANT:**

City of Long Beach  
Long Beach Gas and Oil Department  
Attn.: Mr. Christopher J. Garner, Director  
211 E. Ocean Blvd., Suite 500  
Long Beach, CA 90802

**BACKGROUND:**

The City of Long Beach (City) conducts ground elevation measurement surveys and studies twice each year throughout the Harbor District for the purpose of monitoring elevation changes that may be attributable to subsidence. The project consists of vertical measurements and studies in the City of Long Beach between July 1, 2011 and June 30, 2012. The City estimates the cost of the work to be:

Fixed GPS Base Stations	\$155,000
GPS Elevation Surveys	\$117,500
Studies, Evaluations, and Reports	<u>\$326,000</u>
	\$598,500

Last year's cost was \$634,500. Historically, the primary method for monitoring vertical subsidence in Long Beach has been spirit leveling. The semi-annual surveys are now being conducted utilizing state of the art Global Position Satellite (GPS) technology. Field data collection time has been reduced, and the 800 spirit leveled benchmarks have been reduced to approximately 200 GPS benchmarks. Costs for vertical measurements for fiscal year 2011-2012 include survey acquisition, professional processing, reporting, and benchmark

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maintenance. The estimated vertical survey costs have decreased from the 2010-2011 budget as the City of Long Beach licensed surveyor responsible for the oversight of The GPS surveys and data processing has transferred to the Long Beach Gas and Oil Department.

The three-month hot spot surveys encompass expenditures for elevation surveys over limited oil field areas. These surveys are needed to supplement the existing six-month surveys in areas where greater than anticipated changes in elevations have occurred.

The estimated cost for fixed GPS stations includes station service/maintenance of the 12 permanent GPS base stations that monitor elevations on a continuous basis and technical support from the consultant. Costs have increased from the fiscal year 2010-2011 budget, reflecting the cost of replacing four (4) GPS base stations which have reached their end-of-life. Four base stations are planned to be replaced annually for the next three years. The estimated costs for studies and evaluations have decreased due to a net reduction in staff required to monitor the effects of production from new wells on subsidence.

**FISCAL IMPACT:**

Subsidence monitoring costs for vertical measurements and studies conducted in the Long Beach Harbor District and Long Beach Tidelands Fault Blocks of the West Wilmington Oil Field (excluding Long Beach Unit subsidence surveys) are deducted from the Long Beach Tidelands Oil Revenue Fund, with the prior approval of the California State Lands Commission in accordance with Chapter 138, Statutes of 1964, First Extraordinary Session, Section 1(e).

**STATUTORY AND OTHER REFERENCES:**

- A. The proposed expenditures are authorized by Chapter 138, Statutes of 1964, First Extraordinary Session, and Section 1(e) subject to prior approval by the California State Lands Commission.

**OTHER PERTINENT INFORMATION:**

- 1. The City of Long Beach has determined that the project is exempt from the requirements of CEQA as a categorically exempt project under Class 6, Information Collection; Title 14, California Code of Regulations, section 15306.
- 2. Pursuant to the Commission's delegation of authority and State CEQA Guidelines (Title 14, California Code of Regulations, section 15061), staff recommends that the Commission concur with the City's determination.

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**EXHIBITS:**

- A. Location Map
- B. Cost Estimate

**PERMIT STREAMLINING ACT DEADLINE:**

N/A

**RECOMMENDED ACTION:**

It is recommended that the Commission:

**CEQA FINDING:**

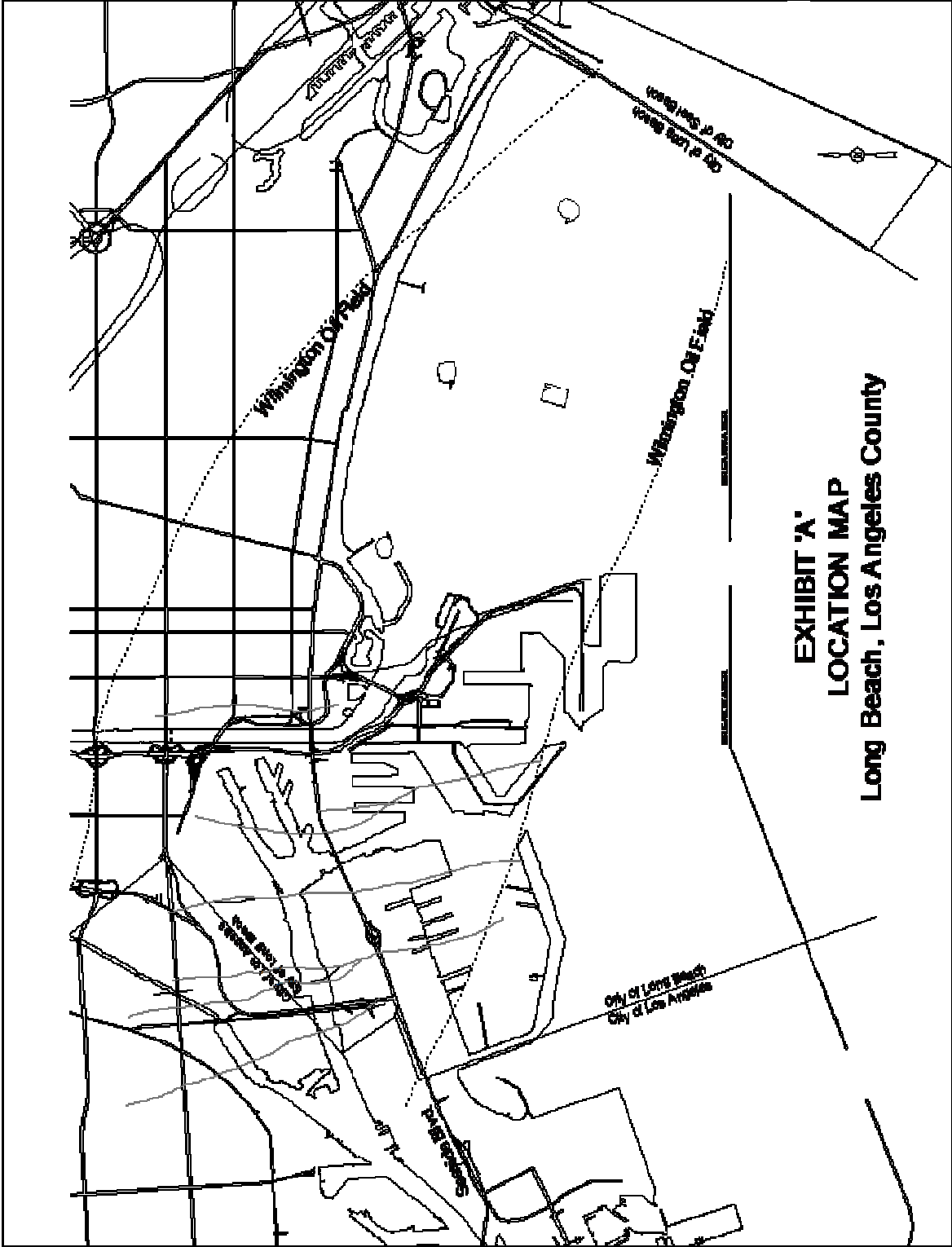
Concur with the City of Long Beach's determination that the proposed activity is exempt from the requirements of CEQA as a categorically exempt project, Class 6, Information Collection; Title 14, California Code of Regulations, section 15306.

**AUTHORIZATION:**

Approve subsidence costs, as defined in Chapter 138, Statutes of 1964, First Extraordinary Session, section 1(e) and as shown on Exhibit B, attached hereto, by this reference made a part hereof, proposed to be expended by the City Of Long Beach, for subsidence vertical measurements and studies to be conducted in the Long Beach Harbor District between July 1, 2011 and June 30, 2012, subject to the condition that the work conforms in essential details to the definitions and procedures for such work established by the Commission on June 27, 1979, Minute Item 27.

EXHIBIT A

W 10443



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## **EXHIBIT B**

### **COST ESTIMATE**

#### **LONG BEACH WORK ORDER NO. W 10443**

Estimates Submitted by City of Long Beach for  
Subsidence Vertical and Horizontal Surveys  
2011-2012 Fiscal Year

<b>ITEM</b>	<b>PROPOSED WORK</b>	<b>RECOMMENDED APPROVAL</b>
1.	Fixed GPS Base Stations	\$155,000
2.	GPS Elevation Surveys	\$117,500
3.	Studies, Evaluations, and Reports	<u>\$326,000</u>
	<b>Total</b>	<b>\$598,500</b>