

**CALENDAR ITEM  
C82**

A 54, 55

06/2810  
W 10444  
C. Duda  
D. Dudak

S 27, 28

**CONSIDER PRIOR APPROVAL OF  
SUBSIDENCE COSTS FOR VERTICAL MEASUREMENTS  
AND STUDIES, 2010-2011 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 and in other areas of the City for the purpose of monitoring changes that may be attributable to subsidence. The legislation that authorized the creation of the Long Beach Unit recognized the potential, but manageable, risk of subsidence from future drilling operations. As a result, the legislation allows the City to deduct certain costs related to monitoring subsidence from the amounts due the State. The deductible Subsidence costs are those costs expended by the City with the prior approval of the State Lands Commission to protect against the effects of subsidence. The definitions and procedures for the work were established by the Commission in 1979 and can be found at Minute Item 27 of the June 27, 1979 meeting.

The project consists of vertical measurements and studies in the City of Long Beach between July 1, 2010 and June 30, 2011. The City estimates the cost of the work to be:

Fixed GPS Base Stations	\$ 55,000
GPS and Real Time Network	\$230,000
Management, Evaluations, Reports	<u>\$349,500</u>
Total	\$634,500

Last year's cost was \$651,734. 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 also been reduced to approximately 200 GPS benchmarks. Costs for vertical measurements for fiscal year **2010-2011** include survey acquisition, professional processing, reporting, and benchmark maintenance. The estimated vertical survey costs (Fixed GPS Base Stations) have decreased significantly from \$220,000 in the **2009-2010** budget to \$55,000 in the **2010-2011** budget due to completion of the software upgrade performed by Geodetics, Inc. in the past year. Geodetics will provide ongoing software maintenance and support to the City.

The estimated cost for GPS and Real Time Network (RTN) includes station service/maintenance of the 13 permanent GPS base stations that monitor elevations on a continuous basis and support the semi-annual and quarterly surveys. The three-month abbreviated GPS check surveys encompass expenditures for elevation surveys over limited areas of the oil field. These surveys are needed to support interpretations of the semi-annual surveys. Costs have increased from \$167,000 in the **2009-2010** budget to \$230,000 in the **2010-2011** budget due to the necessity to replace the mobile GPS units. These units have been in use since 2002 and have reached their end-of-life serviceability.

The estimated costs for management, evaluations, and reports have increased from \$264,234 in the **2009-2010** budget to \$349,500 in the **2010-2011** budget due to the addition of staff hours to analyze field data from elevation loss on the west side suspected to be the result of abandonment of individual oil production and water injection wells. The elevation change in this area is being mitigated by increasing and realigning the water injection with replacement injection wells, however; the City is requesting additional staff time of one person-year to allow existing staff to more thoroughly study these elevation changes.

**FISCAL IMPACT:**

Subsidence costs for vertical measurements and studies conducted in Long Beach are deducted from the Long Beach tidelands oil revenues, 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 the 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 the State CEQA Guidelines (Title 14, California Code of Regulations, section 15061), staff recommends that the Commission concur with the City's determination.

**EXHIBITS:**

- A. Location Map
- B. Cost Estimate

**PERMIT STREAMLINING ACT DEADLINE:**

N/A

**RECOMMENDED ACTION:**

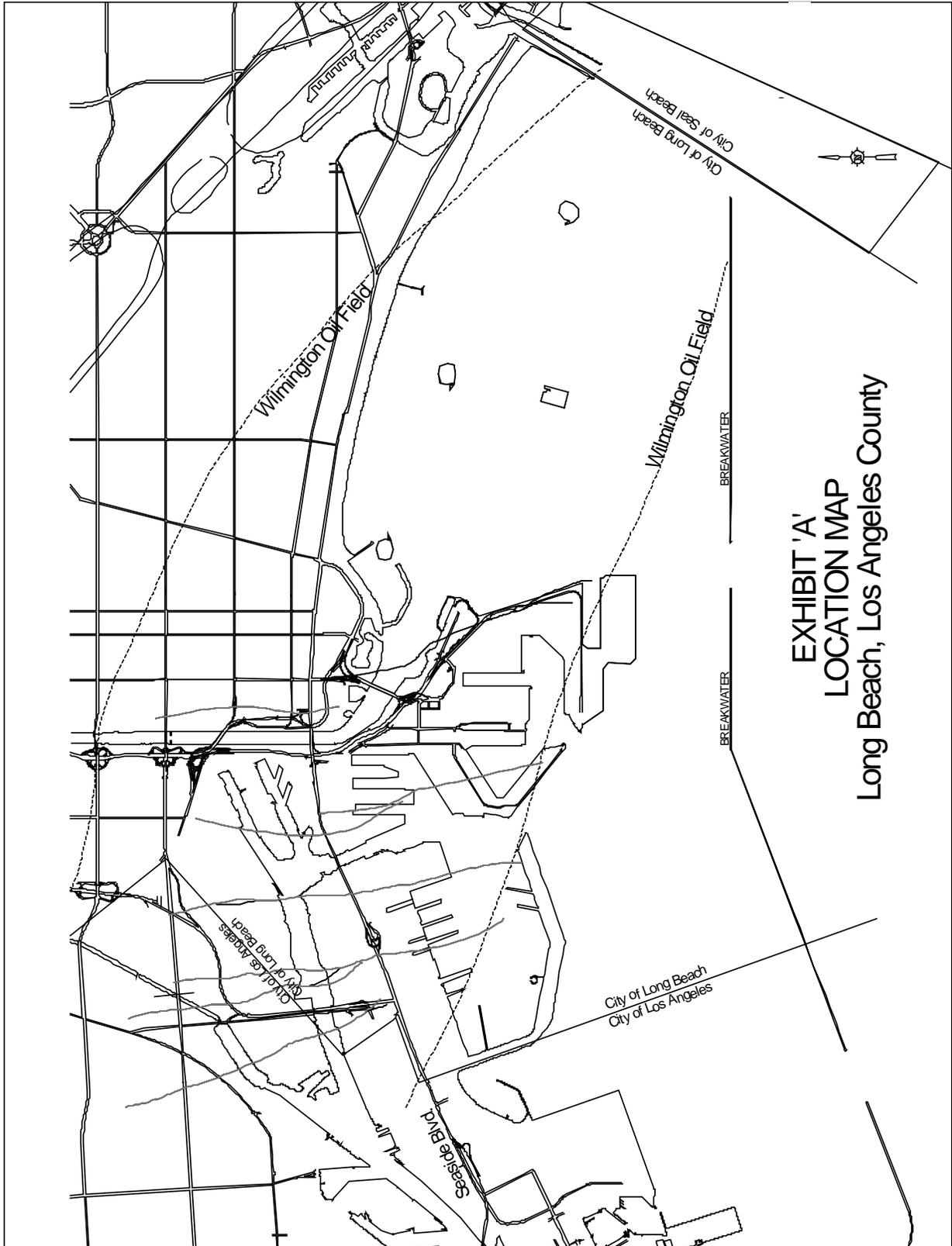
It is recommended that the Commission:

**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, 2010 and June 30, 2011, 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'**  
**LOCATION MAP**  
**Long Beach, Los Angeles County**

06/28/10  
W 10444  
C. Duda  
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**EXHIBIT B**

**COST ESTIMATE**  
**LONG BEACH WORK ORDER NO. W 10444**  
Estimates Submitted by City of Long Beach for  
Subsidence Vertical Surveys  
2010-2011 Fiscal Year

<b>ITEM</b>	<b>PROPOSED WORK</b>	<b>RECOMMENDED APPROVAL</b>
1.	Fixed GPS Base Stations	\$ 55,000
2.	GPS and Real Time Network	\$230,000
3.	Management, Evaluations, Reports	<u>\$349,500</u>
	Total	\$634,500