

**CALENDAR ITEM
C105**

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R. B. Greenwood

**CONSIDER PRIOR APPROVAL OF SUBSIDENCE COSTS
FOR VERTICAL MEASUREMENTS AND STUDIES,
2015-2016 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
2400 East Spring Street
Long Beach, CA 90806

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 changes that may be attributable to subsidence. The work consists of vertical measurements and studies in the City between July 1, 2015, and June 30, 2016. The City estimates the cost of the work to be:

PROPOSED WORK	RECOMMENDED APPROVAL
GPS Real-Time Network	\$48,950
GPS Elevation Surveys (Consultants)	\$105,420
Management, GPS Elevation Surveys, and Reports (City Staff)	\$472,020
Total	<u>\$626,390</u>

Last year's cost was \$710,335. Historically, the primary method for monitoring vertical subsidence in Long Beach has been spirit leveling. Semi-annual surveys utilizing state-of-the-art Global Positioning System (GPS) technology have been conducted since 2002. Since then field data collection time has been reduced, and the 800 spirit leveled benchmarks have been reduced to approximately 200

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GPS benchmarks resulting in substantial cost savings. Costs for vertical measurements for fiscal year 2015-2016 include survey acquisition, professional processing, reporting, and benchmark maintenance.

The estimated cost for fixed GPS stations includes station service/maintenance of the 13 permanent GPS base stations that monitor elevations on a continuous basis and continued technical support from consultants. The 2015-2016 fiscal year GPS station costs have decreased \$48,950 from the fiscal year 2014-2015 budget reflecting completed upgrades of the Real Time Network software and Radio Network Systems. However, the estimated costs for management, studies and evaluations have increased (30%) due to additional City staff time required for City surveyor, GPS elevation surveys, generation of in-house studies and evaluations, day-to-day oil field surveillance and monitoring the effects of production from new wells on subsidence, and rising employee overhead.

FISCAL IMPACT:

Subsidence costs for vertical measurements and studies conducted in Long Beach 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 staff recommends that the Commission find that this activity is exempt from the requirements of the California Environmental Quality Act (CEQA) as a categorically exempt project. The project is exempt under Class 6, Information Collection; California Code of Regulations, Title 14, section 15306.

EXHIBITS:

- A. Location Map
- B. Cost Estimate

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RECOMMENDED ACTION:

It is recommended that the Commission:

CEQA FINDING:

Find that the activity is exempt from the requirements of CEQA pursuant to California Code of Regulations, Title 14, section 15061 as a categorically exempt project, Class 6, Information Collection; California Code of Regulations, Title 14, section 15306.

AUTHORIZATION:

Approve subsidence monitoring 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, 2015, and June 30, 2016, 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

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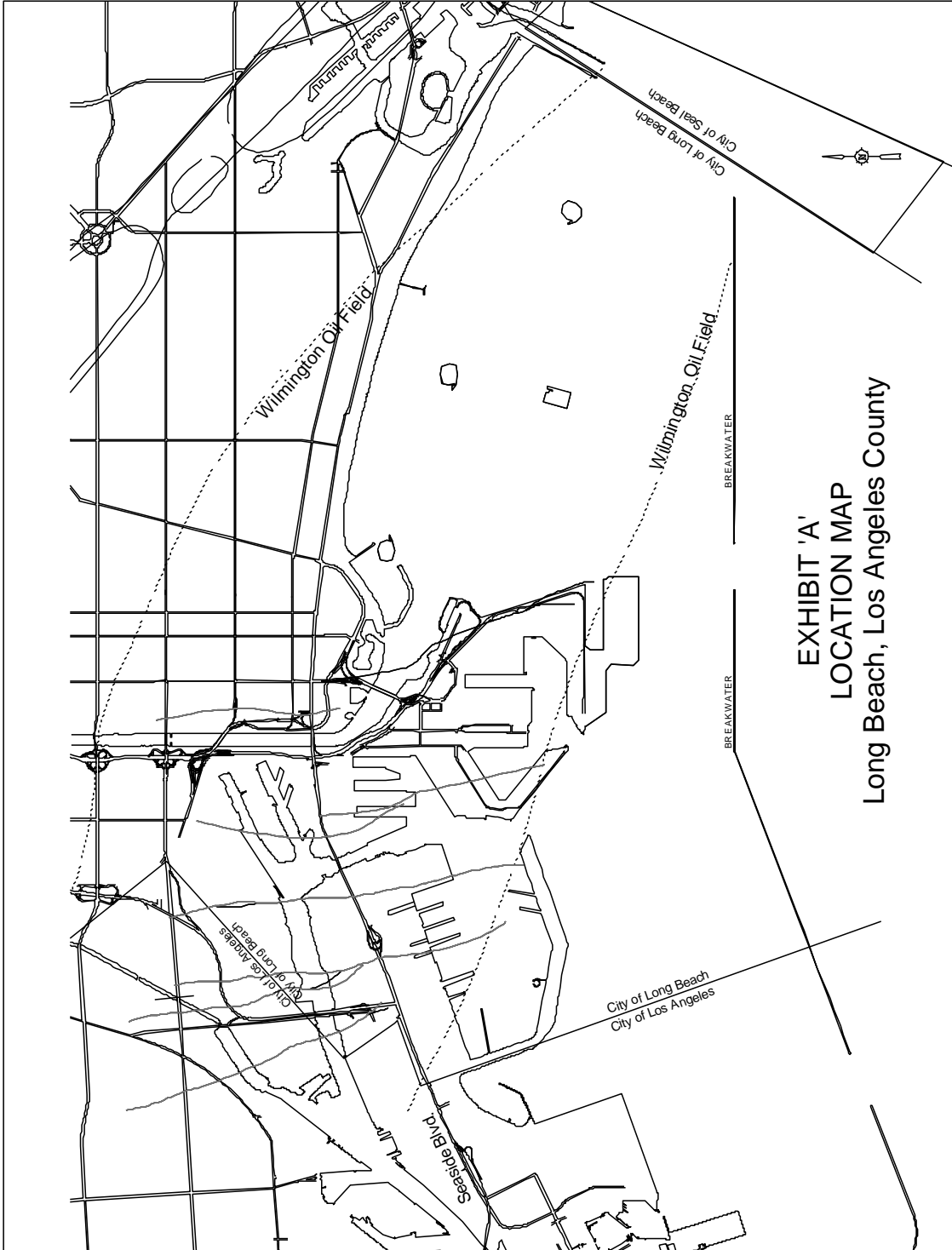


EXHIBIT B

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COST ESTIMATE
LONG BEACH WORK ORDER NO. 10443
Estimates Submitted by City of Long Beach for
Subsidence Vertical and Horizontal Surveys
2015-2016 Fiscal Year

ITEM	PROPOSED WORK	RECOMMENDED APPROVAL
1.	GPS Real –Time Network	\$48,950
2.	GPS Elevation (Surveys (Consultants) Management, GPS Elevation	\$105,420
3.	Surveys, and Reports (City Staff)	\$472,020
	Total	\$626,390