

Staff Report 49

GRANTEE:

City of Long Beach

PROPOSED ACTION:

Consider approval of Subsidence Monitoring Costs for Vertical Measurements and Studies, 2022-2023 Fiscal Year

BACKGROUND:

The City of Long Beach (City) conducts ground elevation measurement surveys and studies twice each year (fall and spring) throughout the Harbor District for the purpose of monitoring changes attributable to subsidence caused by oil and gas extraction operations. Changes in ground level caused by subsidence can indicate that an out-of-balance condition may exist below the surface between the hydrocarbon fluids extracted and the water injected for pressure maintenance, causing the ground to sink or rise. Costs for conducting these surveys and studies in Long Beach are deducted from the Long Beach Tidelands Oil Revenues, with the prior approval of the Commission in accordance with Chapter 138, Statutes of 1964, Extraordinary Session, section 1(e). The surveys will consist of vertical measurements and studies in the City between July 1, 2022, and June 30, 2023.

Table 1. City's Estimated Costs of Proposed Work

PROPOSED WORK	RECOMMENDED APPROVAL
Global Positioning System (GPS) Real-Time Network (RTN) Hardware/Software	\$134,750
Management, GPS Evaluation Surveys, and Reports (Staff)	\$658,955
Total	\$793,705

GPS AND RTN HARDWARE/SOFTWARE

The fixed Long Beach Deformation GPS Network incorporates 14 GPS base stations that continuously acquire data for periodic elevation surveys. For FY 2022-2023, the overall estimated costs are similar to the FY 2021-2022 budget. Fiscal Year 2022-2023 will be the third of three phases of GPS hardware equipment replacement. The current GPS hardware is over 10 years old, and the life expectancy of GPS equipment is 7 years. Firmware updates are no longer available for the current GPS hardware, and the current hardware is not capable of seeing newly launched GPS satellites. Phase three will consist of replacing seven of the 14 GPS Base Stations. The replacement cost of one GPS Base Station is also included in the annual budget in the event of a hardware failure. A contingency of 10 percent is also added to account for any other unforeseen GPS equipment costs or repairs. Fiscal Year 2022-2023 will be the second attempt to complete the replacement of the GPS hardware equipment. Equipment replacement costs were included in both the FY 2020–2021 and FY 2021–2022 budgets, but supply chain issues prevented the actual purchase and delivery of all of the GPS base stations planned to be replaced. The actual expenditure in these 2 fiscal years was 68 percent and 30 percent of the approved budget, respectively.

MANAGEMENT, GPS ELEVATION SURVEYS, AND REPORTS

These costs account for City professional staff and Contractor surveyors' time to perform the GPS elevation surveys, in-house studies, evaluations, report generation/review, and conducting daily surveillance of oil-field activities to monitor subsidence. For FY 2022-2023 the overall estimated costs show a slight increase (\$17,257) from the FY 2021-2022 budget of \$774,798, primarily due to personnel salary and benefit cost increases. A contingency of 10 percent has been added to cover the costs of any additional staff time or future increases in employee benefit costs.

STAFF ANALYSIS AND RECOMMENDATION:

Staff has reviewed the City's proposal for conducting the ground elevation measurement surveys and studies for the purpose of monitoring changes attributable to subsidence. Staff believes the City's proposal is reasonable and consistent with Chapter 138, Statutes of 1964, First Extraordinary Session. Therefore, staff recommends the Commission approve the proposed subsidence monitoring costs.

OTHER PERTINENT INFORMATION:

1. On June 27, 1979, the Commission approved proposed expenditures for subsidence maintenance and repairs and subsidence studies ([Item 27, June 27, 1979](#)). Exhibit B of that Item included the procedures for performing subsidence studies and reimbursement for associated costs. Work performed under this Fiscal Year 2022-2023 proposal will conform to the standards identified in that document. Anticipated costs for Fiscal Year 2021-2022 were presented in [Item 39, April 27, 2021](#).
2. This action is consistent with paragraph 2b of the “Meeting Evolving Public Trust Needs” Strategic Focus Area of the Commission’s 2021-2025 Strategic Plan.
3. 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.

Authority: Public Resources Code section 21084 and California Code of Regulations, title 14, section 15300.

EXHIBITS:

- A. Location Map
- B. Cost Estimate Fiscal Year 2022-2023

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 costs, as defined in Chapter 138, Statutes of 1964, First Extraordinary Session, section 1 (e), as shown on the attached Exhibit B and 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, 2022, and June 30, 2023, subject to the condition that the work conforms in essential details to the definitions and procedures for such work established by the Commission at its June 27, 1979 meeting, Item 27.

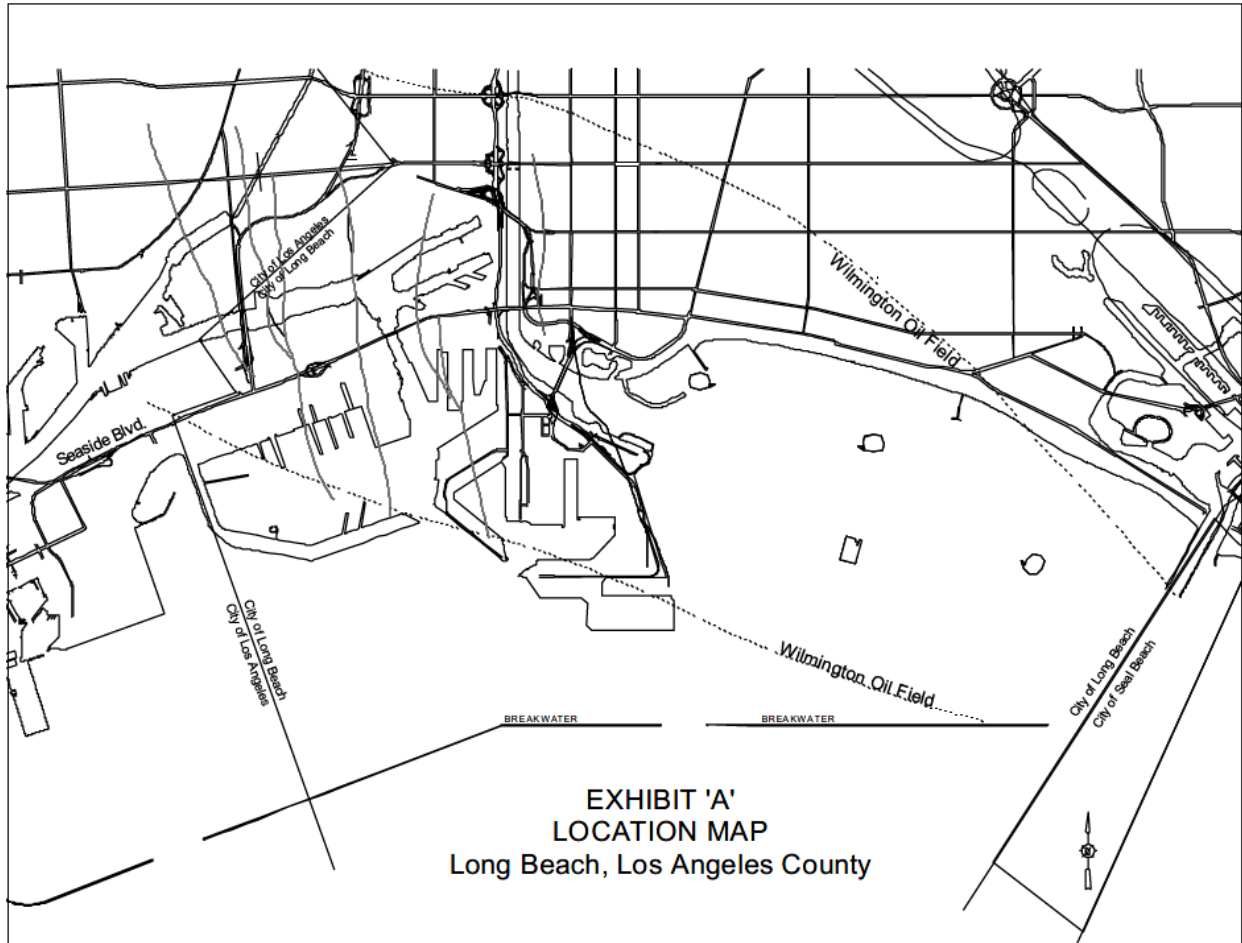


EXHIBIT B

W 10443

COST ESTIMATE

LONG BEACH WORK ORDER NO. 10443

Estimates Submitted by City of Long Beach for
Subsidence Vertical and Horizontal Surveys
Fiscal Year 2022-2023

Proposed Work	Recommended Approval
GPS Real-Time Network (RTN) Hardware/Software	\$134,750
Management, GPS Evaluation Surveys and Reports (Staff)	\$658,955
Total	\$793,705