

**STATE WATER RESOURCES CONTROL BOARD (STATE WATER BOARD)  
DIVISION OF WATER QUALITY RESPONSE TO COMMENTS ON THE  
PROPOSED UST CASE CLOSURE OF J.D. FIELDS LUMBER,  
1751 WEST 130<sup>TH</sup> STREET, GARDENA (Site)**

We received one comment letter during the public comment period, which ended on March 20, 2015 at noon. The comments and our responses are presented here.

Comment letter received:

Commenter, represents the Golden State Water Company (GSWC)

**COMMENT 1: GSWC, as opposed to the Metropolitan Water District of the Southern California, which is incorrectly identified in association with General Criterion a of the 11/30/14 Low Threat Closure Policy checklist, owns and operates five public water-supply wells within a one-mile radius of the site (not including destroyed wells owned by GSWC). Two of these wells (Ballona 4 and 5) are located about 3,300 feet east (generally downgradient at times) of the subject underground storage tank (UST) site, two wells (Southern 5 and 6) are located about 4,900 feet southeast (generally downgradient at times) of the subject UST site, and one well (129<sup>th</sup> Street 2) is located about 5,200 feet west (generally upgradient) of the subject UST site, based on Fall 2013 groundwater elevation contours for the principal aquifers in the basin, which were obtained from the Water Replenishment District of Southern California (WRDSC).**

RESPONSE: State Water Board recognizes that GSWC is the water provider for the Site. Metropolitan Water District of Southern California is the wholesale water provider for the area. State Water Board agrees that the existing GSWC closest active well is located about 3,000 feet from the Site.

**COMMENT 2: The uppermost perforations in these wells occur at 300 and 290 feet below ground surface (bgs) for GSWC's Ballona 4 and 5 wells, at 420 and 400 feet bgs for GSWC's Southern 5 and 6 wells, and at 620 feet bgs for GSWC's 129<sup>th</sup> Street 2 well, or approximately 163, 153, 332, 502, and 572 feet below mean sea level, respectively.**

RESPONSE: State Water Board recognizes that the GSWC wells are 3,000 feet away and typically produce from below the Bellflower Aquiclude. This information was considered when we reviewed the case.

**COMMENT 3: Based on data obtained from WRDSC, and for the BP HITCO site at 1600 West 135<sup>th</sup> Street ([http://geotracker.waterboards.ca.gov/profile\\_report.asp?global\\_id=SL204791669](http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=SL204791669)), which is located about 2,800 feet south of the subject site, a downward vertical hydraulic gradient between the shallow**

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**unconfined aquifer and deeper drinking water aquifers likely exists in the area. This increases the potential threat to drinking water aquifers posed by contaminants that have been released at the site.**

RESPONSE: We agree that net downward vertical hydraulic gradients may exist in many portions of the Los Angeles area and that this generally increases the risk to drinking water aquifers. Normally, the Bellflower Aquiclude prevents flow from the surface downward in most areas of Los Angeles.

**COMMENT 4: Based on data obtained from WRDSC, at least one aquitard appears to exist between the shallow unconfined aquifer and deeper drinking water aquifers in the area, which may impede downward migration of contaminants that have been released at the site.**

RESPONSE: State Water Board agrees. The Bellflower Aquiclude is over 100-foot thick and is a continuous feature at the Site and in the regional area. The aquiclude provides a barrier to the downward migration of petroleum constituents to deeper, productive aquifers.

**COMMENT 5: Regular sampling of downgradient GSWC wells Ballona 4 (CDPH Source ID= 1910155-043), Ballona 5 (CDPH Source ID = 1910155-069), Southern 5 (CDPH Source ID = 1910155-039), and Southern 6 (CDPH Source ID = 1910155-045), since these wells were installed between 1988 and 2005 suggests that fuel-related volatile organic compounds (VOCs) have not been detected in groundwater produced by the wells.**

RESPONSE: State Water Board agrees and these wells were considered in its decision.

**COMMENT 6: Depth to groundwater at the Site in 1999 is estimated to have been about 45 feet bgs based on data from the BP HITCO site. And, soil contamination was found at depths of 10 and 18 feet bgs beneath Tank 1, or at most about 35 to 27 feet above the water table, respectively, based on the estimated depth to groundwater. Evidence of gasoline contamination in soil beneath Tank 1 included Total Petroleum Hydrocarbons [as gasoline] measured at a concentration of 852,000 ug/kg about 35 feet above the water table, Xylene at 119,000 ug/kg about 27 feet above the water table, and Methyl-tert butyl-ether (MTBE) at 22 ug/kg about 27 feet above the water table. In addition, because of the 2,000 ug/kg laboratory detection limit for soil collected at about 35 feet above the water table beneath the north end of Tank 1; it is likely that the concentration of MTBE at this depth could have been significantly higher than the 22 ug/kg found about 27 feet above the water table.**

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**RESPONSE:** The commenter is correct that petroleum constituents were identified in soil beneath the former UST. MTBE was not reported in the soil sample 1A which had a reported detection limit of 2 mg/kg. Soil sample 1A was collected beneath the former UST at approximately 35 feet above the water table. Even in the case that MTBE existed in the soil sample 1A, it would be less than 2 mg/kg and so it is not likely that the low level of MTBE detected could leach 35 feet in the Bellflower Aquiclude's low permeability soil to groundwater with sufficient mass to exceed water quality objectives (WQOs).

**COMMENT 7: The Los Angeles County Department of Public Works approved of a 10/15/00 site investigation work plan on 2/20/02 to, in part, define the vertical and lateral extent of contamination at the site via drilling and sampling of three 50-foot-deep borings near Tank 1. However, it is unclear if this work plan was ever implemented because there is no documentation of this investigation available on the State Water Board's GeoTracker web page for this site. The 11/22/13 UST Path to Closure Plan also identifies impediments to site closure and indicates that a work plan be developed to define the extent of the contaminant release documented at the site. However, it is not clear from the limited publically available information whether any further site investigation activities have been performed. Thus, it is not clear if the extent of gasoline contamination documented beneath Tank 1 has been determined and whether General Criterion e of the 11/30/14 Low Threat Closure Policy checklist has been met.**

**RESPONSE:** The commenter is correct that no additional work has been reported completed since 1999. Previous reviews have recommended additional investigation. After a more detailed review of the existing Site data, given the low level of unauthorized release detected in the confirmation soil samples collected beneath the former USTs, the Site setting, and the natural attenuation of petroleum that occurs in the environment, it is highly unlikely that the low concentrations of residual petroleum constituents could leach to groundwater with sufficient mass to violate the Groundwater Media-Specific Criteria in the Low-Threat Underground Storage Tank Case Closure Policy (Policy). While there may be uncertainty about the exact extent of the release, additional work at the Site is unnecessary to protect human health and the environment. The November 22, 2013, UST Path to Closure Plan on GeoTracker has been updated.

**COMMENT 8: It is not clear whether contaminated soil beneath Tank 1 was excavated and removed from the site, so it is unclear whether General Criterion f of the 11/30/14 Policy checklist has been met.**

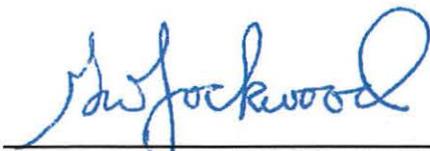
**RESPONSE:** The commenter is correct that no contaminated soil was excavated at the Site. However, confirmation soil samples indicated that low concentrations of residual petroleum constituents were detected in soil beneath Tank 1.

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The Policy General Criterion (f.) states that "...petroleum-release sites are required to undergo secondary source removal to the extent practicable as described herein. "To the extent practicable" means implementing a cost-effective corrective action which removes or destroys-in-place the most readily recoverable fraction of source-area mass." Underlined for emphasis. To remove all traces of residual petroleum constituents at this Site would require significant additional effort and cost. If complete removal of detectable traces of petroleum constituents becomes the standard for UST corrective actions, the statewide technical and economic implications will be enormous. For example, disposal of soils from comparable areas of excavation throughout the state would greatly impact already limited landfill space. In light of the precedent that would be set by requiring additional excavation at this Site and the fact that beneficial uses are not threatened and water quality exceeding WQOs at this Site is not likely, further corrective action is not necessary.

**COMMENT 9:** Given the elevated concentrations of gasoline contaminants in soil, the relatively short distance between soil contamination and groundwater, and the highly mobile nature of MTBE, it is reasonable to suspect that groundwater might have been affected by MTBE. However, it is unclear whether the Groundwater-Specific Criterion of the 11/30/14 Policy checklist has been satisfied. This is because no data are available, such as sampling results from the proposed 50-foot-deep borings, to preclude the presence of groundwater contamination at the site. Thus, GSWC is unable to comment on potential impacts to drinking water aquifers in the area from operation of USTs at the subject site.

RESPONSE: The commenter is correct that petroleum constituents were identified in soil beneath the former UST. Soil sampling results indicated that the detected concentrations of residual petroleum constituents are low. It is not likely that the low level of petroleum constituents could leach 35 feet in the Bellflower Aquiclude's low permeability soil to groundwater with sufficient mass to exceed WQOs and violate the Groundwater Media-Specific Criteria in the Policy.



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8/14/2015

Date

