

**STATE OF CALIFORNIA  
REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL COAST REGION**

**STAFF REPORT FOR REGULAR MEETING OF FEBRUARY 2, 2012**

Prepared January 11, 2012

**ITEM NUMBER: 11**

**SUBJECT: Staff Closures**

**This Action: Information/Discussion**

This staff report summarizes information for two Central Coast Water Board staff-closed Underground Storage Tank (UST) cases. Central Coast Water Board staff closed these sites because the wastes in soil do not pose a threat to human health and the environment and the groundwater beneath the site has reached water quality goals that are protective of beneficial uses. No Central Coast Water Board action is necessary for this item.

For the sites listed in this report, closure reflects a tangible water quality outcome, meaning groundwater has been restored such that it meets water quality goals sufficient for all of the designated beneficial uses. Table 1 below provides case closure targets for the current fiscal year (July 1, 2011 – June 30, 2012) and progress to date in achieving those tangible water quality outcomes.

**Table 1  
Case Closure Performance Scoreboard**

<b>Program</b>	<b>2011-2012 Fiscal Year<sup>1</sup> Case Closure Target</b>	<b>2011-2012 Fiscal Year<sup>1</sup> Case Closures To Date<sup>2, 3</sup></b>
Underground Storage Tanks	17	8
Site Cleanup	12	4

**Notes:**

<sup>1</sup> Fiscal Year 2011-2012 runs July 1, 2011 to June 30, 2012.

<sup>2</sup> Final closure letters are not issued for sites until the responsible party submits documentation of proper well abandonment.

<sup>3</sup> This total includes sites with pending well destruction and does not include Recommended Closures on the current agenda.

**UNDERGROUND STORAGE TANK CASE CLOSURE:**

7-Eleven Store #32415, 1212 Fremont Boulevard, Seaside, Monterey County  
[Wei Liu 805-542-4648]

The subject site is an active 7-Eleven convenience store and retail gasoline service station on the northeastern corner of Fremont Boulevard and Hilby Avenue in Seaside. During fuel-line upgrade work in August 2003, soil samples collected under the fuel dispensers and the vent lines showed maximum concentrations of total petroleum hydrocarbon as gasoline (TPH-g) at nine milligrams per kilograms (mg/kg) and methyl tertiary-butyl ether (MTBE) at 16 mg/kg.. Other petroleum

hydrocarbons and fuel oxygenates were not detected. The responsible party (7-Eleven, Inc.) installed five groundwater monitoring wells at the site in January 2004. The initial groundwater sample results showed maximum concentrations of 20 µg/L MTBE and 14 µg/L tertiary butyl alcohol (TBA) in monitoring well MW-2. All other petroleum hydrocarbons and fuel oxygenate additives in groundwater samples were either not detected above the laboratory detection limits or below the Central Coast Water Board's cleanup goals. In later 2004, consultants removed approximately 209 tons of contaminated soil during UST replacement activities at the site. No other remedial actions, beyond monitored natural attenuation, took place due to the low hydrocarbon concentrations detected at the site.

The responsible party, 7-Eleven, Inc., monitored the groundwater quarterly starting in the first quarter 2004 to confirm the initial results from the monitoring wells. Although MTBE and TBA concentrations in groundwater reached their highest level of 1,100 µg/L and 120 µg/L, respectively, in October 2005, the concentrations have decreased significantly since then. The most recent groundwater sample results during the first quarter 2011 indicate that only MTBE was detected, at a maximum concentration of 2.6 µg/L, below the Central Coast Water Board's groundwater cleanup goal for MTBE of 5 µg/L. Benzene and all other petroleum hydrocarbon constituents, including fuel oxygenates, were below either their respective laboratory detection limits or the respective cleanup goals or action levels.

Based on groundwater monitoring results and soil sampling results, no significant threat to surface or groundwater quality from the release of petroleum hydrocarbons exists at the site. The past year's groundwater monitoring results show no petroleum hydrocarbon compounds or fuel oxygenates exist at concentrations above their respective laboratory detection limits or the Central Coast Water Board's cleanup goals. Soil samples collected during facility upgrade activities in 2004 and 2007 did not show total petroleum hydrocarbons, benzene, or fuel oxygenates above the laboratory detection limits.

The depth to groundwater at the site has ranged from approximately 23 feet to 26 feet below ground surface. Groundwater flow direction beneath the site is consistently to the north-northwest with a gradient of 0.005 feet per foot. The closest water supply well (an irrigation well) is located approximately 2,000 feet northwest of the site. The nearest surface water is Monterey Bay, located approximately 0.8 mile northwest of the site.

Based on soil removal actions in 2004, soil sampling results and groundwater monitoring data, no further investigation or cleanup is necessary at this site. Central Coast Water Board staff has notified the Monterey County Health Department, the property owner, and other interested parties of our plan to close this case. We have not received comments or objections to the planned closure of this case. The responsible party has been directed to destroy all monitoring wells. Staff will close this case, and the Executive Officer will issue a final case closure letter, upon receipt of a well destruction report documenting the proper destruction of all monitoring wells.

Former Tosco Facility #05432 Site, 899 Hawthorne Street, Monterey, Monterey County  
[Wei Liu 805-542-4648]

The subject site is an active retail gasoline service station located at the southwest corner of David Avenue and Hawthorne Street in Monterey, and has been in operation since prior to 1970. This underground storage tank cleanup case was opened in 1990 after consultants found up to 130,000

microgram per liter ( $\mu\text{g/L}$ ) total petroleum hydrocarbons as gasoline (TPH-g) and 12,000  $\mu\text{g/L}$  benzene in groundwater samples collected during UST removal. Approximately 4,400 gallons of groundwater containing a petroleum hydrocarbon sheen were removed from the UST excavation. A total of seven groundwater monitoring wells were installed in 1992 and 1993. Low TPH-g (up to 3,700  $\mu\text{g/L}$ ) and benzene (up to 1,900  $\mu\text{g/L}$ ) concentrations were detected in the new monitoring wells. Tosco, the responsible party, has conducted quarterly groundwater monitoring since 1992. No other remedial action was taken due to relatively low concentrations detected in groundwater monitoring wells during the subsequent quarterly monitoring events. In 1996, Water Board staff granted case closure for the subject site with additional requirements for implementation of post-closure monitoring of the existing site wells.

Due to detections of methyl tertiary butyl ether (MTBE) at concentrations up to 4,800  $\mu\text{g/L}$  in the August 2001 post-closure monitoring event, this case was re-opened in 2001, and Water Board staff directed Tosco to perform further investigation and cleanup. Consultants installed a total of four additional off-site groundwater monitoring wells to delineate extent of the MTBE plume. Under the direction of the Water Board, Tosco submitted a Corrective Action Plan (CAP) in 2005, and implemented contaminant mass removal using dual-phase (groundwater and soil vapor) extraction with a mobile treatment system combined with periodic oxygen injections in groundwater to enhance biodegradation of residual petroleum hydrocarbons as the selected remedial alternatives. Tosco performed dual phase extraction between 2005 and 2007, with batch soil vapor and groundwater extractions ending in April 2010. Approximately two gallons of petroleum hydrocarbons were removed from the site during the entire dual phase extraction effort. During post-remediation monitoring, hydrocarbon concentrations have declined to below their respective cleanup goals in all wells.

Groundwater analytical results from the second quarter 2011 event confirmed that concentrations of all petroleum hydrocarbon constituents, including fuel oxygenates, are below their respective laboratory detection limits or groundwater quality objectives.

The depth to groundwater at the site has ranged from approximately 0.1 feet to 5.6 feet below ground surface. Monterey Bay is located approximately 1300 feet northwest of the site. The groundwater flow direction around the site is primarily to the east. There are no known water supply wells within a one-half-mile radius of the site.

Based on dual phase extraction, soil sampling results, and groundwater monitoring data, no further investigation or cleanup is necessary at this site. Central Coast Water Board staff notified the Monterey County Health Department, the property owner, the City of Monterey, and other interested parties of our intent to close this cleanup case. We have received no comments or objections to the planned closure of this case. The responsible party has been directed to destroy all monitoring wells. Central Coast Water Board staff will close this case, and the Executive Officer will issue a final case closure letter, upon receipt of a well destruction report documenting the proper destruction of all monitoring wells.