

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

STAFF REPORT FOR REGULAR MEETING OF JULY 10, 2009

Prepared June 19, 2009

ITEM NUMBER: 7
SUBJECT: Staff Closures
THIS ACTION: Status Update – Information item only

Background:

This staff report summarizes information for three underground storage tank (UST) cleanup sites Central Coast Water Board staff closed because the groundwater beneath each site has attained water quality goals that are protective of beneficial uses. No Central Coast Water Board action is necessary for this item.

Five Mile House 2904 Freedom Boulevard, Corralitos, Santa Cruz County
[Tom Sayles 805/542-4640]

Central Coast Water Board staff will close this UST case where groundwater sample results indicate total petroleum hydrocarbons as gasoline, benzene, toluene, ethylbenzene, xylenes, methyl tertiary butyl ether (MTBE) and tert-butyl alcohol (TBA) are below the Central Coast Water Board's cleanup goals. The site lies within the Watsonville Hydrologic Unit (305.10), for which the Water Quality Control Plan, Central Coast Region (Basin Plan) designates groundwater as having beneficial uses for domestic and municipal supply, agricultural supply, and industrial supply. The groundwater cleanup goals for common gasoline constituents are as follows: 1,000 micrograms per liter ($\mu\text{g/L}$) total petroleum hydrocarbons, 1 $\mu\text{g/L}$ benzene, 5 $\mu\text{g/L}$ MTBE, and 12 $\mu\text{g/L}$ TBA. Cleanup goals for TPH and MTBE are based on taste and odor thresholds.

This former gasoline service station operated for approximately 35 years. Two petroleum USTs were abandoned in place after the station ceased operations. One UST was removed on December 12, 2006, and the other tank is believed to be located within the current building footprint. In 2007, the Responsible Party's consultant proposed a soil vapor extraction and air sparging (SVE/AS) remedial system for the site. The SVE/AS system consisted of 10 air sparging wells and 6 soil vapor extraction wells. The SVE/AS treatment system operated from April 2008 through December 2008. The system extracted a total of 630 pounds of petroleum hydrocarbons from the site.

Groundwater ranges in depth from approximately 5 to 18 feet below ground surface. The groundwater generally flows toward the southeast at an average gradient of 0.01 feet per foot. Corralitos Lagoon is located approximately 100 feet northwest of the site and Corralitos Creek is approximately 550 ft east of the site. There are no drinking water supply wells within 1/2-mile of the site. Santa Cruz County Environmental Health Services staff agrees that no further action is required for this case.

Based on the soil and groundwater data and the active remedial actions completed at the site, the groundwater shows no impacts and no further investigation or cleanup is necessary. We have notified all interested parties of our plan to close this case. We have not received any comments or objections to the planned closure of this case. The responsible party has been directed to

destroy all monitoring wells. The 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.

USA Station #42, 2338 Del Monte Boulevard, Monterey, Monterey County
[Wei Liu 805/542-4648]

The site is a retail gasoline station situated in an area of light commercial use on Del Monte Avenue in Monterey. In August 1998, the station owner removed three USTs in the eastern portion of the site and installed new USTs in the western portion of the site. Approximately 110 cubic yards of petroleum hydrocarbon-impacted soil were removed from the area around the former USTs at that time. The Responsible Party installed seven groundwater monitoring wells (MW-1R through 7) at the site between 1997 and 2002. The Responsible Party monitored the groundwater quarterly from October of 1997. Prior to remediation at the site, the historical groundwater sample results showed the maximum concentrations of 15,000 µg/L of total petroleum hydrocarbon as gasoline, 3.3 µg/L of benzene, 50,000 µg/L of MTBE, and 7,000 µg/L of TBA. All other petroleum hydrocarbons in groundwater samples were either not detected or were below Central Coast Water Board cleanup goals. Petroleum hydrocarbon concentrations detected in soil were also below the Central Coast Water Board's cleanup goals.

In 2003, Water Board staff directed the Responsible Party to submit a Corrective Action Plan (CAP). The CAP was approved and implemented beginning in late 2003. The Responsible Party installed five remediation wells in August 2003. In 2005, the Responsible Party installed a total of six additional groundwater monitoring wells to further define the lateral and vertical extent of hydrocarbon-degraded groundwater. The groundwater sample analytical results from 2005 suggested that a narrow plume of MTBE and TBA extended downgradient of the western portion of the site, beneath Del Monte Avenue. As the result, the Responsible Party updated the CAP to include the installation a treatment barrier below the downgradient portion of the plume and additional remediation wells. The Responsible Party implemented the updated CAP in 2006. .

In March 2008, contaminant concentrations were all at or below groundwater quality goals, suggesting the remediation was effective and successful. The Responsible Party started post-remediation groundwater monitoring in March 2008. Groundwater analytical data from that monitoring event and three subsequent post-remediation monitoring events confirmed that contaminant concentrations had decreased to below groundwater quality objectives. The most recent groundwater sample results indicate 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 nine feet to fifteen feet below ground surface. Groundwater flow direction beneath the site is consistently to the west and northwest with a gradient of 0.002 foot per foot. The closest water supply well is located approximately 1,600 feet cross-gradient of the site. The nearest surface water is Monterey Bay, located approximately 1,700 feet north of the site.

Based on cleanup actions, soil sampling results, and groundwater monitoring results, the groundwater is not impacted above cleanup goals and no further investigation or cleanup is necessary at this site. We have 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. 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.

Subaru of Santa Cruz, 1219 Soquel Avenue, Santa Cruz, Santa Cruz County

[Tom Sayles 805/542-4640]

Central Coast Water Board staff will close this UST case where groundwater sample results indicate total petroleum hydrocarbons as gasoline, benzene, toluene, ethylbenzene, xylenes, MTBE and TBA are below the Central Coast Water Board's cleanup goals.

The site is currently a vacant automobile dealership and is located at a mixed residential and commercially zoned area between Seabright Avenue (west), Water Street (north) and Soquel Avenue (south) in Santa Cruz. In April 2008 the responsible party (Dianna Ligon) commissioned a Phase II Environmental Site Assessment that detected low levels of contaminants in the shallow soils. Based on a maximum concentration of TPH-gasoline at 3,900 milligrams per kilogram (mg/kg), the responsible party commissioned additional assessment in December 2008. During a December 2008 investigation, consultants concluded that the previous detections of low-level contaminants in the shallow soils were fully defined and posed no risk to human health or to the groundwater beneath the site.

The site lies within the Santa Cruz Hydrologic Unit (304.10). The "Water Quality Control Plan, Central Coast Region" (Basin Plan) designates groundwater in the Santa Cruz Hydrologic Unit as having beneficial uses for domestic and municipal supply, agricultural supply, and industrial supply. The groundwater cleanup goals for common gasoline constituents are as follows: 1,000 µg/L total petroleum hydrocarbons, 1 µg/L benzene, 5 µg/L MTBE, and 12 µg/L TBA. Cleanup goals for TPH and MTBE are based on taste and odor thresholds.

Groundwater currently ranges in depth from approximately 5.5 to 8.8 feet below ground surface. The groundwater generally flows toward the southwest at an average gradient of 0.01 feet per foot. The San Lorenzo River is located approximately 2,400 feet west of the site. There are no drinking water supply wells within a half mile of the subject site. Santa Cruz County Environmental Health Services (SCCEHS) staff agrees that no further action is required for this case.

Based on the data collected from the subject site, the groundwater shows no impact and no further investigation or cleanup is necessary. We have notified all interested parties of our plan to close this case. We have not received any comments or objections to the planned closure of this case. There were no groundwater wells installed during the investigations and all soil borings have been properly destroyed. The Central Coast Water Board staff will close this case, and the Executive Officer will issue a final case closure letter.