

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

**STAFF REPORT FOR REGULAR MEETING OF MAY 12-13, 2010**

Prepared April 15, 2010

**ITEM NUMBER: 14**

**SUBJECT: Recommended Case Closures**

**Background:**

This staff report provides a summary for a cleanup site that Central Coast Water Board staff has recommended for closure, although the groundwater beneath this site has not attained water quality goals for one or more constituents. Staff's closure recommendation is premised on the knowledge that: 1) the remaining constituent concentrations are sufficiently low so as to not pose a threat to surrounding existing beneficial uses of the water (e.g., supply wells, surface waters, etc.); 2) the constituent sources have been removed; 3) monitoring has indicated that the groundwater plumes are contracting in size and concentration; and 4) continued monitoring at this site would not provide additional benefit for the staff resources invested. This site is appropriate for closure, based on the site-specific information provided below.

**Chevron Station No. 9-6293, 5887 Monterey Road, Gilroy, Santa Clara County  
(Wei Liu, 805- 542-4648)**

Central Coast Water Board staff and the Santa Clara County Department of Environmental Health (DEH) staff recommend closure of this underground storage tank (UST) case where sample results indicate benzene concentrations in groundwater remain slightly above Central Coast Water Board cleanup goal. The latest groundwater monitoring results during the first quarter 2009 indicate benzene in two wells at concentrations of 2 and 1 microgram per liter ( $\mu\text{g/L}$ ), respectively. Other petroleum hydrocarbons and oxygenate fuel additives were either not detected above laboratory reporting limits or were below cleanup goals in the other monitoring wells at the site. The Central Coast Water Board cleanup goal for benzene is 1  $\mu\text{g/L}$ .

The site is an active Chevron-owned, retail gasoline station located on Monterey Road in Gilroy. In December 1995, consultants removed three 10,000-gallon and one 6,000-gallon USTs from the site and replaced them with three new 10,000-gallon gasoline USTs. During the UST removal and installation, a total of 1,500 cubic yards of contaminated soils were removed and disposed of at an off-site facility. Since 1984, site assessments and investigations have included soil borings, monitoring well installations, and soil and groundwater sampling. Consultants conducted quarterly groundwater monitoring from July 1989 to February 2009. Prior to remediation at the site, the historical groundwater sample results showed maximum concentrations of 190,000  $\mu\text{g/L}$  of total petroleum hydrocarbon as gasoline (TPH-g), 40,000  $\mu\text{g/L}$  of total petroleum hydrocarbon as diesel (TPH-d), 11,000  $\mu\text{g/L}$  of benzene, 13,000  $\mu\text{g/L}$  of toluene, 6,200  $\mu\text{g/L}$  of ethylbenzene, 30,000 of xylenes, 10,000  $\mu\text{g/L}$  of methyl tertiary-butyl ether (MTBE), and 2,130  $\mu\text{g/L}$  of tert-butyl alcohol (TBA). The maximum soil concentrations before site remediation were 9,100 microgram per kilogram (mg/kg) of TPH-g, 1,800 mg/kg of TPH-d, 36 mg/kg of benzene, 320 mg/kg of toluene, 130 mg/kg of ethylbenzene, and 9.6 of MTBE.

In January 2003, the responsible party (Chevron) directed the installation of a soil vapor extraction system. The system was operated continuously through September 2004, and then seasonally through October 2005. Consultants estimate that the system removed approximately 9,680 lbs of TPH-g, 24.7 lbs of benzene, and 378.6 lbs of MTBE. Analytical results of the soil samples indicated maximum post-remedial soil concentrations of 2,600 mg/kg of TPH-g, 1,800 mg/kg of TPH-d, 1.5 mg/kg of benzene, 61 mg/kg of toluene, 64 mg/kg of ethylbenzene, 380 mg/kg of xylenes, and 0.38 mg/kg of MTBE.

Results of recent soil confirmation sampling and the latest groundwater monitoring indicate that soil and groundwater contaminants are confined to a small area within the property boundary. The site is adjacent to State Highway 101 and is surrounded by commercial property. Residual concentrations of the soil contamination are not expected to affect groundwater quality beneath the site based on the site location and historical groundwater monitoring results of the nearby wells. Residual contamination is expected to further attenuate over time.

Residual soil and groundwater contamination still underlies the site that could pose an unacceptable risk under certain site development activities such as site grading, excavation, or de-watering. The Central Coast Water Board, Santa Clara County DEH, and the appropriate local planning and building departments must be notified prior to any changes in land use, grading activities, excavation, or dewatering. This notification should include a statement that residual soil and groundwater contamination underlie the property and a description of the mitigation actions necessary (if any) to ensure that any possibly contaminated soils or groundwater brought to the surface by these activities are managed appropriately. Future site disturbance could require worker health and safety protection, and restrictions on the disposal of soil and groundwater. Additionally, Santa Clara County DEH may also require additional assessment and remediation if the property is proposed to be redeveloped. Additional action by DEH may include, but is not limited to, a case review, further investigations, soil gas analysis, remedial action, and human health risk assessment.

The site lies within the South Santa Clara Valley Hydrologic Area of the Pajaro River Hydrologic Unit (305.30). The "Water Quality Control Plan, Central Coast Region" (Basin Plan) designates groundwater in this area as having beneficial uses for domestic and municipal supply, agricultural supply, and industrial supply. The nearest water supply is located approximately 150 feet downgradient from the site. Confirmation samples collected previously from nearby downgradient water supply wells indicated these wells were not impacted by the site contaminants. Water Board and DEH staff do not consider the residual hydrocarbons found in wells C-7 and VE-3 to be a threat to the downgradient water supply wells.

Central Coast Water Board staff and Santa Clara County DEH staff recommend closure of this case based on the following:

1. The primary source of petroleum hydrocarbons (USTs) was removed and a portion of the secondary source (impacted soil) was excavated and disposed of offsite;
2. The majority of the remaining contaminant mass has been removed through soil vapor extraction, to the extent practical. Residual soil contamination detected during the February 2009 confirmation sampling does not appear to be significantly affecting groundwater quality beneath the site, and will likely continue to attenuate over time;
3. The extent of the residual contaminant, benzene, in groundwater is limited to a small area within the property boundary, and the residual benzene concentrations are at or slightly above the drinking water standard. The remaining benzene plume underneath the site is not expected to impact nearby water supply wells. Any remaining contaminant

is expected to naturally attenuate to below the groundwater cleanup goal in a reasonable time; and

4. Case closure is consistent with State Board Resolution No. 92-49, Section III.G., which allows consideration of cost effective abatement measures where attainment of reasonable objectives, less stringent than background water quality, does not unreasonably affect present or anticipated beneficial uses of groundwater, and will not result in water quality less than that prescribed by the Basin Plan.

On February 19, 2010, the DEH notified the current fee title holders of the proposed case closure, pursuant to Water Code Section 13307.1 and the California Health and Safety Code, Section 25296.20. We have not received any objections to the proposed closure.

The recommended case closure is consistent with closure of similar low-risk petroleum hydrocarbon cases by the Central Coast Water Board in the past. Unless the Water Board directs staff otherwise and pending proper monitoring well destruction, the Executive Officer will issue a case closure letter pursuant to California Underground Storage Tank Regulations..