STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION

STAFF REPORT FOR REGULAR MEETING OF MAY 3, 2012
Prepared April 3, 2012

ITEM NUMBER: **8**

SUBJECT: **Staff Closures**

This Action: **Information/Discussion**

This staff report summarizes information for one Central Coast Water Board staff-closed Underground Storage Tank (UST) case and one Site Cleanup Program case. Central Coast Water Board staff will close these sites because the wastes in soil do not pose a threat to human health and the environment and the onsite surface water and groundwater beneath the site have 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 surface water and groundwater have been restored such that they meet 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

Program	2011-2012 Fiscal Year[1] Case Closure Target	2011-2012 Fiscal Year[1] Case Closures To Date[2, 3]
Underground Storage Tanks	17	17
Site Cleanup	10	4

Notes:
1 Fiscal Year 2011-2012 runs July 1, 2011 to June 30, 2012.
2 Final closure letters are not issued for sites until the responsible party submits documentation of proper well abandonment.
3 This total includes sites with pending well destruction and does not include Recommended Closures on the current agenda.

UNDERGROUND STORAGE TANK CASE CLOSURE:

San Lorenzo Park Plaza, 698-720 Front Street, Santa Cruz, Santa Cruz County
[Tom Sayles 805-542-4640]

Central Coast Water Board staff recommends closure of this UST case where sample results indicate no petroleum hydrocarbon constituents (e.g., total petroleum hydrocarbons as gasoline (TPH-g), as diesel (TPH-d), as kerosene (TPH-k), benzene, toluene, ethylbenzene, xylenes, Methyl tert-butyl ether (MTBE) and tert-butyl alcohol (TBA) and other fuel oxygenates) were

detected above the reporting limits in any of the nine monitoring wells associated with the subject site.

The site is located at 698-720 Front Street in Santa Cruz and is currently a shopping center. There are no USTs present at the subject site. In 1960, all structures and roadways in the area of the shopping center were removed. Reportedly, the grading contractor removed several USTs and filled the excavations with sand prior to the construction of the current facility during the 1960s. No records of tank or soil removals have been found for this time period.

In 2002, SCHUTZE & Associates, Inc. drilled nineteen borings on the northern portion of the shopping center. Total Petroleum Hydrocarbon (TPH) was detected in soil at concentrations of up to 1.5 milligrams per kilogram (mg/kg). Benzene, Methyl tert-butyl ether (MTBE) and all other gasoline constituents were not detected in the soil. Fuel fingerprinting identified the hydrocarbons as altered, degraded, and weathered kerosene.

A geophysical survey was conducted in 2003 and a follow-up exploratory excavation was conducted in 2004. TPH as hydraulic oil (TPH-ho) was detected in soil at concentrations of up to 470 mg/kg. The responsible party's consultant concluded that the elevated TPH-ho concentrations were related to shallow fill material potentially containing asphalt fragments. Benzene and MTBE were not detected in the soil.

Groundwater monitoring began in 2004 following installation of six monitoring wells. Three additional monitoring wells were installed in 2006. Since monitoring began, groundwater samples have been analyzed for all petroleum hydrocarbon constituents. No petroleum hydrocarbon constituents have been detected above the cleanup goals in groundwater monitoring wells since 2010,

In February of 2010, approximately 675 pounds (dry weight) of Oxygen Release Compound Advanced© (ORCA) was hydrated and injected beneath the site. The purpose of the injection was to accelerate the natural attenuation of petroleum hydrocarbon detected in groundwater at the site. Quarterly monitoring has demonstrated that all contaminant concentrations, including TPH, are now below cleanup goals.

Groundwater typically flows towards the southeast, but it does fluctuate seasonally. Groundwater levels range from nine feet to 19 feet beneath ground surface (bgs). The San Lorenzo River is located across River Street immediately off-site. There are no drinking water wells within a one-half mile radius of the site.

The site lies within the San Lorenzo Hydrologic Unit (304.12). The "Water Quality Control Plan, Central Coast Region" (Basin Plan) designates groundwater in this Hydrologic Unit as having beneficial uses for domestic and municipal supply, agricultural supply, and industrial supply.

Our closure decision is based on the following:

1. The extent of the release has been adequately characterized,
2. The soil contaminant source was removed from the site to the extent practical, and the remaining soil contaminants above the cleanup goal are limited in extent,
3. The data indicate that all groundwater monitoring results for the wells associated with the subject site were below cleanup goals for total petroleum hydrocarbons as gasoline (TPH-g), as diesel (TPH-d), as kerosene (TPH-k), benzene, toluene, ethylbenzene,

xylenes, MTBE and tert-butyl alcohol (TBA). No gasoline constituents have been detected above the cleanup goals in groundwater monitoring wells since 2010,

4. No drinking water supply wells are within a one-half mile radius of the site,
5. Closure is consistent with Section III.G. State Board Resolution No. 92-49, allowing consideration of cost effective abatement measures for a site where attainment of reasonable objectives less stringent than background water quality does not unreasonably affect present or anticipated beneficial uses of groundwater.

Residual soil contamination may still exists on-site that could pose an unacceptable risk under certain site development activities such as site grading, excavation, or tank removals. The Central Coast Water Board, Santa Cruz County Environmental Health Services (SCCEHS), and the appropriate local planning and building departments must be notified prior to any changes in land use, grading activities, excavation, or tank removals. The levels of residual contamination and any associated risks are expected to reduce with time. Additionally, SCCEHS may require a health risk assessment be conducted should this site be redeveloped.

Based on the groundwater data there are no remaining groundwater impacts and further investigation or cleanup is not necessary. We have notified all known interested parties of our plan to close this case. Santa Cruz County Environmental Health Services supports our closure action on this site. We have not received any additional 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.

SITE CLEANUP PROGRAM CASE CLOSURE:

Plains Exploration and Production Company (PXP), Arroyo Grande Field, 1821 Price Canyon Road, San Luis Obispo County [Alison Jones (805) 542-4646]

The site is located south of the City of San Luis Obispo, on Price Canyon Road, between Highway 228 and Highway 101.

On June 13, 2011, PXP operations personnel discovered a release from a tank containing 50% sodium hydroxide solution at the Arroyo Grande oil field in Price Canyon. Approximately 4000 gallons of the solution had flowed across the site and into a tributary to Pismo Creek.

Representatives from California Department of Fish and Game, Central Coast Water Board, and San Luis Obispo County Environmental Health Department oversaw cleanup. Cleanup included testing of soil, sediment and surface water for elevated pH and removal of contaminated soil and sediment. Cleanup goals were set as follows:

- Segment 1, from the tank to the bank of the tributary - no greater than 0.5 above background pH in soil
- Segment 2, tributary - no greater than pH 8 or 0.5 above background in sediment and surface water
- Segment 3, Pismo Creek - no greater than pH 8 or 0.5 above background for sediment and surface water

In addition, testing was conducted in the area around the sodium hydroxide storage tank after removal of the tank to ensure that soil pH did not exceed the cleanup goal for soil of no greater than 0.5 above background.

As part of the cleanup effort, PXP excavated 1,050 tons of soil that exceeded cleanup goalsand transported these soils to the Clean Harbors disposal facility in Buttonwillow, California. Confirmation testing of soil, sediment and surface water confirmed that cleanup goals were met.

Based on the results of the soil and surface water sampling, no further investigation or cleanup is necessary at this site. Representatives from all the oversight agencies signed off that soil, sediment, and surface water cleanup goals had been attained in each segment and in the area of the storage tank. There are no properties within 1000 feet of the spill that might have been impacted. Groundwater was not impacted by the spill. This staff report item serves as public notice of the Water Board's intent to close this cleanup case and provides opportunity for public comment. Unless the Central Coast Water Board receives comments or objections to this proposed closure on or before June 3, 2012, the Executive Officer will issue a final case closure letter and associated closure documentation following the close of this public comment period.