

STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION

STAFF REPORT FOR REGULAR MEETING DECEMBER 7, 2007

ITEM NUMBER: 8

SUBJECT: Low Threat and General Discharge Cases

DISCUSSION:

CORRECTIVE ACTION PLAN APPROVAL

Mission Linen Supply Facility, 435 Market Street, Salinas, Monterey County [Sheila Soderberg 805/549-3592]

The Mission Linen Supply Facility, located at 435 Market Street in Salinas (site), is currently an industrial laundry facility owned and operated by Mission. During construction activities associated with property improvements in February 2007, petroleum-type odors were encountered in the southwest portion of the property. The contamination is believed to be associated with a former tenant that used this area of the site for vehicle servicing. In April and May 2007, Mission's consultant performed an environmental investigation to define the extent of petroleum hydrocarbons (TPH) and chlorinated volatile organic compounds (VOCs) in soil and groundwater at the site.

On August 17, 2007, Mission's consultants submitted site assessment results and a corrective action plan (CAP) to Central Coast Water Board and Monterey County Environmental Health Division (MCEHD). Mission plans to excavate contaminated soils to various depths based on site-specific contaminant depth distribution, with a 15-foot below ground surface (bgs) maximum excavation depth. Mission will backfill the excavation with clean imported soil. Mission plans to construct a new vehicle service building, which will overlie the TPH and VOC source area. Mission plans to install an engineered vapor barrier inside the building. After building construction is complete, Mission will install three onsite, and potentially offsite, monitoring wells to better delineate and monitor the extent of groundwater contamination.

Mission plans to cleanup VOC contaminated groundwater by injecting a carbon substrate into groundwater (located approximately 30 to 40 feet bgs) to promote bioremediation (enhanced reductive dechlorination). Prior to, and following the injection, groundwater samples will be collected to monitor the effects of the injection.

On September 10, 2007, MCEHD conditionally approved the CAP provided Mission extend its' proposed excavation areas and depths. On September 11, 2007, Central Coast Water Board staff conditionally approved the CAP provided: (1) Mission quantify any contaminants remaining in site soils that could not be excavated; (2) Mission adequately addresses any Site human health issues identified by MCEHD; (3) Mission records a deed restriction if contaminated soil remains in place; (4) Mission submits more information regarding the ERD substrate prior to injection for Water Board staff to evaluate if waste discharge requirements are needed; and (5) Mission provides quarterly updates on site construction and cleanup progress. On September 18, 2007, Central Coast Water Board staff issued a public notice to all potentially interested regulatory

agencies and to all landowners and residents/occupants impacted or likely impacted by groundwater contamination within a 500-foot radius of the site. The public notice described the site history and provided a summary of the proposed cleanup approach. Central Coast Water Board staff did not receive comments on the proposed cleanup plan within the 30-day comment period.

On September 27, 2007, Mission's consultants submitted a letter addressing MCEHD's additional excavation requirements and information regarding vapor barrier material and construction. On October 12, 2007, MCEHD approved the CAP provided that Mission conduct a human health risk assessment and record a deed restriction if contaminated soils remain in place. On October 23, 2007, Central Coast Water Board staff concurred with Mission's proposed corrective action plan. Mission anticipates beginning excavation in late October/early November 2007.

STAFF CLOSED CASES

Katch-Go Mobil Service Station, 1294 Grand Avenue, Arroyo Grande, San Luis Obispo County; [Corey Walsh 805-542-4781]

The subject site is an active retail gasoline service station on the northeastern corner of Grand Avenue and Fairview Drive in Arroyo Grande. In August 1988, a release of gasoline was discovered during an environmental site investigation of the facility. Three gasoline underground storage tanks (USTs) and one waste oil UST were removed during the October 1989 tank system upgrade. The San Luis Obispo County Division of Environmental Health referred the case to the Central Coast Water Board in August 1995 after conducting initial soil remedial actions.

The responsible party commissioned several phases of investigation and cleanup and a total of 10 soil borings, 14 groundwater monitoring wells, 4 vapor extraction wells, and 8 air sparging wells were installed. Laboratory analytical results detected maximum concentrations of total petroleum hydrocarbons as gasoline (TPH-g) at 13,000 milligrams per kilogram (mg/kg), benzene at 50 mg/kg, and methyl tertiary-butyl ether (MTBE) at 1.4 mg/kg in soil samples.

The responsible party conducted corrective actions from July 1990 until March 1995 using a soil venting system. In September 2003, an air sparging and vapor extraction (AS/VE) system was operated until March 2006. Decreasing groundwater concentration trends, and low vapor influent concentrations indicated that the remediation system was no longer effectively removing contaminants in soil and groundwater at the time of system shut down. The AS/VE system removed an estimated total of 995 pounds of hydrocarbons.

The April 26, 2007 groundwater sample results indicate petroleum hydrocarbon constituents of concern (e.g. benzene, toluene, ethylbenzene, xylenes, MTBE and other fuel oxygenates) were below cleanup goals or were not detected in groundwater. Depth to underlying groundwater ranges from approximately 30 to 43 feet (ft) below ground surface. Groundwater flow is generally to the southwest with a variable gradient. No municipal groundwater production wells are located within 2,500 feet of the site. However, the City of Arroyo Grande operates six municipal production wells located between approximately 2,500 and 3,000 ft south of the site, and the City of Grover Beach operates four municipal production wells located between approximately 3,200 and 3,400 ft southwest of the site. Three private domestic or irrigation

water wells are located between approximately 3,100 and 5,100 ft of the site. The nearest surface water is Arroyo Grande Creek, an ephemeral stream, located approximately one mile southeast of the site.

Based on site cleanup actions and groundwater monitoring results, there is no longer a threat to surface water or groundwater quality from the release of petroleum hydrocarbons. Therefore, Central Coast Water Board staff has no further requirements for groundwater monitoring, investigation or cleanup. The San Luis Obispo County Division of Environmental Health Services agrees with this determination. The property owner and adjacent owners have also been notified of the proposed case closure.

On October 29, 2007, Central Coast Water Board staff received comments from a property owner adjacent to the site. The commenter expressed concerns that a recent drop in groundwater elevations might correlate with undetected contaminant concentrations in groundwater monitoring wells. The adjacent property owner would like the Central Coast Water Board to require additional groundwater monitoring to be conducted.

Central Coast Water Board staff reviewed the groundwater elevation and contaminant concentration data for the site and found no correlation between dropping groundwater elevations and reduced or undetected contaminant concentrations in groundwater monitoring wells. Based on the groundwater monitoring and remediation history, there is no significant threat to groundwater resources and no further groundwater monitoring or cleanup is necessary. The groundwater plume has been cleaned up and contaminant mass has been removed from the site to the extent practical. Staff responded to the commenter by phone on October 29 and in a letter dated November 9, 2007.

The responsible party has been directed to destroy all monitoring wells 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.

UST: Former Unocal Service Station (No. 0292) - 433 Ocean Avenue, Santa Cruz, Santa Cruz County, [Tom Sayles 805-542-4640]

This former underground storage tank site has recent (September 18, 2007) groundwater sample results indicating no petroleum hydrocarbon constituents (e.g., total petroleum hydrocarbons as gasoline (TPH-G), benzene, toluene, ethylbenzene, xylenes, MTBE and other fuel oxygenates) detected above the reporting limits in any of the five monitoring wells associated with the subject site.

Two 10,000-gallon gasoline, one 10,000-gallon diesel, and one 550-gallon waste oil UST were removed in 1989. Soil samples collected during the July and August 1989 investigation indicate a maximum concentration of 4,100 mg/kg TPH-G and 0.22 mg/kg benzene in the shallow soils beneath the site. Between July and August 1989 approximately 200 cubic yards of impacted soil were excavated from the site. In addition, approximately 25,000 gallons of hydrocarbon-impacted groundwater were removed from the tank pit area and treated during the tank removal activities. Following tank removal, a "grab" groundwater sample indicated a concentration of 4,000 micrograms per liter ($\mu\text{g/L}$) TPH-G and 8,900 $\mu\text{g/L}$ total petroleum hydrocarbons as diesel (TPH-D).

Following the initial investigations, the responsible party installed three groundwater monitoring wells to evaluate the extent of the hydrocarbon impacts. The maximum groundwater concentrations detected in the monitoring wells associated with the subject site were 140 µg/L TPH-G, 20 µg/L benzene and 2,200 µg/L MTBE. Based on these results, the responsible party implemented a groundwater monitoring program. The responsible party completed additional remedial action in October 2006 by injecting Fenton's Reagent into 20 Geoprobe borings at locations near the source area.

Based on the third quarter 2007 groundwater monitoring data, the remedial excavation, dewatering activities, and Fenton's Reagent injections have been effective in reducing all hydrocarbon constituents to below cleanup goals and maximum contaminant levels (MCLs).

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. Therefore, cleanup goals for common hydrocarbon constituents are as follows: 1.0 mg/L-TPH, 1 µg/L – benzene, 150 µg/L – toluene, 300 µg/L – ethylbenzene, 1,750 µg/L – xylenes, and 5 µg/L – MTBE. Cleanup goals for TPH and MTBE are based on taste and odor thresholds.

Groundwater occurs at approximately 6 to 10 feet below ground surface and flows to the northwest at approximately 0.18 foot/foot. The extent of hydrocarbon impacts and subsurface conditions have been adequately characterized.

There are no drinking water supply wells within 1/2-mile of the site. Santa Cruz County Environmental Health Services (SCCEHS) staff agrees that no further action is required with respect to this case. The current property owner, the responsible party, and responsible party's consultant have been notified of Central Coast Water Board staff's intent to close this case.

Based on the soil and groundwater data and the active remedial actions completed at the site, the groundwater shows no impact and further investigation or cleanup is not necessary. We have notified all known 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.

**UST: Architectural Window Products, 132 Doyle Street, Santa Cruz, Santa Cruz County,
[Tom Sayles 805-542-4640]**

Staff closure of the above-referenced underground storage tank case is based on recent groundwater sample results which indicate no petroleum hydrocarbon constituents (e.g., total petroleum hydrocarbons as gasoline, benzene, toluene, ethylbenzene, xylenes, MTBE and other fuel oxygenates) detected above the reporting limit in the wells associated with the subject site.

One 350-gallon waste oil UST was removed from the site in 1990. Soil samples collected during the initial investigation indicate a maximum concentration of 14,000 mg/kg TPH-G and 45 mg/kg benzene in the shallow soils beneath the site. In April of 1990, approximately 100 cubic yards (yds³) of impacted soil was excavated from the site.

Three groundwater monitoring wells were installed in September 1990 to evaluate the extent of the hydrocarbon impacts. The maximum detected concentrations were 3,100 µg/L TPH-G, 190 µg/L benzene, and 13 µg/L MTBE. Based on these results, the responsible party (RP) implemented a groundwater monitoring program. In February 2002, the RP removed approximately 500 yds³ of contaminated soil to remediate the source area. Approximately 2,000 gallons of groundwater were also removed at this time.

The current groundwater monitoring data indicate that previous soil excavations and dewatering along with natural attenuation have been effective in reducing all hydrocarbon concentrations associated with the subject site to below cleanup goals and maximum contaminant levels.

The site lies within the Santa Cruz Hydrologic Unit (304.10), which the Basin Plan designates groundwater as having beneficial uses for domestic and municipal supply, agricultural supply and industrial supply. Cleanup goals for common hydrocarbon constituents are as follows: 1.0 mg/L – total petroleum hydrocarbons (TPH), 1 µg/L – benzene, 150 µg/L – toluene, 300 µg/L – ethylbenzene, 1,750 µg/L – xylenes, and 5 µg/L – MTBE. Cleanup goals for MTBE and TPH have been established based on taste and odor thresholds.

Groundwater at the site is encountered at approximately 4 to 5 feet below ground surface and flows to the southeast at 0.01 foot/foot. The extent of hydrocarbon impacts and subsurface conditions have been fully characterized at this site

There are no drinking water supply wells within 1/2-mile of the site. SCCEHS staff agrees that no further action is required with respect to this leaking underground storage tank case. The current property owner, the responsible party, and responsible party's consultant have been notified of Central Coast Water Board staff's intent to close this case.

Based on the soil and groundwater sampling data, the groundwater at the site is no longer impacted and further investigation or cleanup is not necessary. We have notified SCCEHS, 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 associated with the subject site. Two wells will be used as downgradient wells to monitor a separate release at 134-136 Doyle Street, Santa Cruz. Water Board staff will close this case, and the Executive Officer will issue a final case closure letter, upon receipt of a well conveyance agreement and well destruction report documenting the proper transfer or destruction of monitoring wells.

CASES RECOMMENDED FOR CLOSURE

Former Martinelli Property, Lots 34 and 41 of the San Luis Suburban Tract, San Luis Obispo County, [Diane Kukol, 805/542-4637]

Site Cleanup Program staff manage petroleum-impacted soil, surface water, and groundwater issues at Unocal's (now Chevron's) former San Luis Obispo Tank Farm in San Luis Obispo County, close to the San Luis Obispo city limits. In addition to issues associated with the Tank Farm itself, crude oil-impacted soil and water quality issues exist at nearby properties, including the former Martinelli property, adjacent to, and immediately north of the Tank Farm (Attachment 2). Although the subject property is officially known as "Lots 34 and 41 of the San Luis Obispo Suburban Tract" and is currently owned by Mr. Byron Davis, the Martinelli family owned the

property for the longest period of time within the last 100 years, and the property is therefore referenced herein as "the former Martinelli property."

Based on the threat to water quality, a recorded covenant to restrict land use, and anticipated annexation into the City of San Luis Obispo, Central Coast Water Board Site Cleanup Program staff recommend no further action on the former Martinelli property, Lots 34 and 41 of the San Luis Suburban Tract. This recommendation does not, however, apply to Unocal/Chevron's San Luis Obispo Tank Farm, or adjacent parcels or properties.

Background

The former Martinelli property lies within the San Luis Obispo Creek Hydrologic Subarea (3-10.24) of the Estero Bay Hydrologic Unit. The Basin Plan designates groundwater beneficial uses in this sub-area to include domestic and municipal supply, agricultural supply, and industrial supply. Groundwater is not universally present beneath the property. When present, however, groundwater flows to the southwest, and exceeds the MCL for manganese, chloride, specific conductance, and total dissolved solids (TDS). The nearest water supply wells are on the Tank Farm property, and are used for non-potable applications. There is no surface water on the former Martinelli property.

Unocal owned the 60-acre property immediately north of the Tank Farm from approximately 1910 to the early 1930s. (Note: the segment that is recommended for no further action is the westernmost 20-acre parcel). Prior to a catastrophic fire at the San Luis Obispo Tank Farm in 1926, Unocal contemplated expanding the Tank Farm onto the 60-acre parcel, and approximately 13 circular berms were constructed for future aboveground tank installation. Aerial photos show six of these berms exist on the westernmost 20-acre parcel. Historical records searches have indicated that although the circular bermed areas were constructed, tanks were never installed in any of them.

The Martinelli family purchased the 60-acre property from Unocal in the early 1930s, and they maintained ownership of the entire property until 1999 when Unocal reacquired the westernmost 20-acre parcel. During preliminary stages of planning a recreational complex on the subject property in the late 1990s, contractors discovered that Unocal held rights to a pipeline easement across the property. Historic information indicates a crude oil pipeline from the San Joaquin Valley accessed Unocal's San Luis Obispo Tank Farm from the north via the former Martinelli property. This pipeline was likely constructed across the parcel in the early 1910s during Unocal's ownership. Trenching conducted by Unocal in 1998 revealed visible petroleum contamination along the pipeline corridor, and although the old pipeline trench was visible, the pipeline itself was no longer present. Subsequent geophysical investigations have corroborated this conclusion; it appears that the pipeline was removed from service in the 1930s when petroleum transfer operations were moved to a pipeline that runs along a portion of Tank Farm Road, which bisects the Tank Farm property.

Analytical Results

Unocal conducted subsurface investigations in 1998, 1999, and 2005 which revealed petroleum-impacted soil along segments of the pipeline easement. The majority of the petroleum occurs within the 10- to 20-foot depth range, and is composed mainly of high molecular weight hydrocarbons. As would be expected with weathered crude oil contamination that has been in the ground for at least 80 years, volatile aromatic hydrocarbons were not detected in soil samples. Unocal identified two areas of petroleum-impacted soil along the

former pipeline: on the former Martinelli property, the impact is limited to the immediate vicinity of the pipeline in a small southern area; impacted soil extends a greater distance away from the pipeline alignment in a larger northern area (Attachment 3). Approximately 0.37 acre of the nearby Cowan property is also impacted by this northern soil contamination. TPH contamination in soil detected along the contaminated areas varies from non-detect to 13,270 mg/kg. The majority of soil detections, however, are in the 300 mg/kg to 6,000 mg/kg TPH range.

In 1999, Central Coast Water Board staff directed Unocal to conduct groundwater monitoring to assess potential water quality impacts due to soil contamination. In response, Unocal installed monitoring wells on the former Martinelli property. Analytical results have indicated that despite soil contamination, groundwater impact has been minimal. Dissolved TPH has been detected at low concentrations in groundwater, most commonly at levels below 1,000 µg/L. Only one well (B-60) has yielded TPH detections greater than 1,000 µg/L (the highest being 2,800 µg/L), but detections occurred sporadically between 1999 and 2005, and the well was installed within the northern area of soil contamination. Another well (B-96) located less than 50 feet downgradient from well B-60 has yielded detections in the 170 – 490 µg/L range. Toluene and xylene at extremely low concentrations have been detected in 13 percent of groundwater samples collected from well B-60, and toluene has been detected at similarly low concentrations in less than one percent of the samples from wells B-61 and B-64. Two polynuclear aromatic hydrocarbons (phenanthrene and indeno[1,2,3-cd]pyrene) were detected twice in groundwater samples collected between 1999 and 2006. In both instances, concentrations were minimal and may have been due to laboratory contamination.

Covenant to Restrict Land Use

Unocal/Chevron prepared a human health risk assessment for the former Martinelli property in March 2006. The San Luis Obispo County Department of Public Health, Division of Environmental Health reviewed the risk assessment and concluded the unremediated property does not currently pose a human health and safety threat, and will not present an unacceptable threat to human health and safety as long as future use of the property is limited to business park and open space/recreational use, as prescribed in the City of San Luis Obispo's General Plan. Based on these conclusions from San Luis Obispo County and known petroleum hydrocarbon concentrations in soil and groundwater, Water Board staff worked with Unocal/Chevron to prepare a Covenant and Environmental Restriction (Covenant) for the former Martinelli property. The Covenant was recorded in San Luis Obispo County in August 2006, and restricts the property's current and future owners from installing or using a well for any purpose, and disturbing soil between 10 and 15 feet below ground surface without a soils management plan and a health and safety plan approved by the appropriate agency. In addition, the Covenant indicates that Unocal/Chevron retains responsibility for the maintenance, inspection, sampling, and destruction of existing groundwater monitoring wells. Since August 2006, ownership of the subject property has changed twice, and the current owner has designated portions of the yet-undeveloped land for a business park. In addition to the Covenant, which "runs with the land," Unocal/Chevron included further restrictions for future development as a Notice to the Deed. These restrictions are based on types of construction that are excluded from soil on the property with specific petroleum hydrocarbon concentrations. Water Board staff believe the Covenant and the additional restrictions included in the Notice to the Deed adequately protect human health and the environment by reducing the risk of exposure to residual petroleum hydrocarbon compounds on the property.

No Further Action Recommendation

Our recommendation for no further action is based upon the following:

- The petroleum hydrocarbon present at the property is weathered crude oil that has been in the ground for at least 80 years. Volatile components of the petroleum are not present in any soil samples;
- TPH concentrations in groundwater are at or well below the typically applied action level of 1,000 µg/L. No other constituents typically associated with petroleum hydrocarbons have been detected at concentrations exceeding any action levels;
- Petroleum hydrocarbon constituents in groundwater are unlikely to reach a drinking water supply well;
- Groundwater at the property is not likely to be used;
- Upon review of a human health risk assessment, San Luis Obispo County concluded that subsurface petroleum hydrocarbons at the former Martinelli property do not pose a current or future threat to human health as long as the property continues to be restricted to non-residential use.
- A covenant to restrict land use is recorded for the property, which limits groundwater use and restricts soil disturbance between 10 to 15 feet below ground surface without approval from appropriate agencies. Additional restrictions limit areas where particular types of construction can take place;
- The City of San Luis Obispo expects to annex the property in the near future. After annexation, the property will access all City services, such as water and sewer, thereby eliminating the need for on-site water supply and subsurface wastewater management.

Unless the Central Coast Water Board objects and pending monitoring well destruction, the Executive Office will issue a no further action letter to Unocal/Chevron for the former Martinelli property.

Attachments

1. Martinelli Property Site Location Map
2. Martinelli Property Site Plan Showing TPH in Soil

Lompoc Former Disciplinary Barracks, Farm Fuel Site, Lompoc, Santa Barbara County
[David Schwartzbart (805) 542-4643]

Staff recommends closure of this Department of Defense cleanup case where groundwater contaminants remain above drinking water maximum contaminant levels (MCL). 1,2-dichloroethane (1,2-DCA) remains in groundwater at approximately 1.2 parts per billion (ppb), approximately 2.5 times its MCL, and several metals remain above their MCL, though the excessive metals might be natural or from ongoing groundwater treatment.

The United States Army and Bureau of Prisons are joint responsible parties (responsible parties) for water quality issues at the Lompoc Former Disciplinary Barracks (FDB), now a federal prison. The responsible parties requested closure of the Farm Fuel Site (site), one of three remaining active Lompoc FDB water quality sites (Attachment 4).

Four UGT's (three fuel and one waste oil) were removed from the site in March 1990. After site assessment and investigation in 1991 and 1992, approximately 1,500 cubic yards of soil contaminated with TPH and VOCs were excavated and removed in January 1995.

Quarterly groundwater monitoring commenced in May 1996. 1,2-DCA was detected in the core of the contaminant plume in MW-6 at up to 310 ppb in April 1998. The California Code of Regulations, Title 22 drinking water MCL for 1,2-DCA is 0.5 ppb.

Data from deeper monitoring well MW-13 (and other borings) indicate appreciable 1,2-DCA did not migrate deeper than uppermost groundwater. Samples from MW-13 contained very low concentration of 1,2-DCA during initial sampling in October 2002, but 1,2-DCA was not detected during eight subsequent sampling events (most recent December 2006).

In December 2002, the responsible parties commenced groundwater treatment by injecting a carbon source into groundwater for enhanced reductive dechlorination (ERD) of 1,2-DCA. Carbohydrate (molasses and cheese whey) was injected every several months from December 2002 to June 2007. Injection from December 2002 to September 2005 met with limited success because of inadequate delivery, thus injection volumes and pressures were significantly increased during the eight injection events from September 2005 to June 2007. The responsible parties consultant's opinion is that enough chemical has been injected to reduce all concentrations to at or below MCLs within 1 year by the consultant's most recent statements based on most recent data.

1,2-DCA was not detected in MW-3R, MW-8, MW-9 and MW-12, except low concentrations (less than 1 ppb) in MW-9 until August 2002.

As shown on Attachment 5, current groundwater data indicate: 1) 1,2-DCA was not detected in MW-3R and MW-12 during June 2007; 2) 1,2-DCA remains in MW-6 in the plume core at approximately 2.5 times its MCL; 3) There are some indications that injected chemicals will continue to reduce 1,2-DCA concentrations, yet other indications are inconclusive; 4) Arsenic concentrations in MW-6 are approximately 1.5 times its MCL, though that might be caused by ERD treatment desorbing it from soil with its subsequent decrease in groundwater after ERD chemicals are spent; and 5) Selenium and iron concentrations are roughly elevated though it might be naturally occurring.

In support of the closure request, the responsible parties indicate site management is uniquely difficult at a prison with possible prisoner threat to environmental workers and possible wellhead tampering and vandalism.

In addition, prior to closure, 1) The responsible parties will file a deed restriction with Santa Barbara County, or if not possible, implement an acceptable, comparably protective procedure; 2). The responsible parties must abandon site monitoring wells.

Water Board staff recommend case closure based on the following:

- Contaminant sources have been removed by tank removal in March 1990 and subsequent soil excavation in January 1995.
- The remaining groundwater VOC plume above MCLs is limited in spatial extent and generally decreasing in concentration over time. The several metals concentrations exceeding standards are possibly natural or from groundwater treatment chemicals causing soil desorption, and are expected to decrease after treatment chemicals are depleted.
- Remaining contaminants are unlikely to reach a supply well (2,500 feet away from site).
- A deed restriction (or equivalent) will be recorded.

- Closure is consistent with Section III.G. of State Water Resources Control 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 unreasonable affect present or anticipated beneficial uses of groundwater, and will not result in water quality less than that prescribed by the Basin Plan.

Unless the Water Board objects, pending monitoring well destruction, deed restriction recordation and favorable third and fourth quarter 2007 monitoring results, the Executive Officer will issue a case closure letter for this DoD program case.

Attachments

3. Lompoc Barracks Complex Location Map
4. Organic Compounds Exceeding Groundwater MCL's Detected

Former Illicit Drug Lab At Unnumbered Turri Road Address, Los Osos, San Luis Obispo County [David Schwartzbart [805/542-4643]

We recommend closure for the former illicit methamphetamine production lab on Turri Road in Los Osos because site soil and water contamination has successfully been remediated to cleanup standards, except for slight, isolated groundwater exceedances, expected to meet California Code of Regulations Title 22 drinking water MCL standards soon.

After discovery and control of the site illicit drug lab in March 2001 by various law enforcement agencies, the California Department of Toxic Substances Control, with involvement of San Luis Obispo County Environmental Health Department, conducted emergency response, removing obviously contaminated soil and waste at the residence shown on the attached map [attachment 6]. The Water Board then became lead environmental agency, requiring and comprehensive site investigation and remediation.

Freon 11 and Freon 113 were found to be the primary soil and groundwater contaminants. The discharger's consultant excavated and aerated contaminated soils onsite, reducing freon levels to undetectable concentrations by 2003. Los Osos Creek flows adjacent to the site and was sampled repeatedly. Contaminants were not detected, except for occasional low concentrations of organic chemicals not related to freons, which might or might not have been related to the site. Site groundwater was successfully remediated through two insitu applications of Hydrogen Releasing Compound (HRC) (in May 2002 and January 2004) through trenches and injection points into groundwater.

We recommend Site Cleanup Program case closure based on the following:

- During March 2007, the most recent monitoring event, all groundwater contaminant concentrations were less than their respective MCL, except for Freon 11 in MW-9 (170 ppb. The MCL for Freon 11 is 150 ppb.
- During all monitoring events from December 2005 to March 2007, a few other volatile organics were detected at a few locations, all at concentrations less than applicable standards. For example, acetone was present up to 300 ppb, methyl ethyl ketone (MEK) up to 130 ppb, chloroform up to 3.9 ppb and 1,1-dichloroethane (1, 1-DCA) up to 2.4 ppb. Department of Public Health has not established MCLs for acetone and MEK. The MCLs for chloroform and 1, 1-DCA are 80 ppb and 2.4 ppb, respectively.

- Although HRC is predicted to be consumed within two years of injection (by January 2006), some groundwater parameters indicate HRC may still be active. If that is the case, there is a small likelihood that some contaminant concentrations could increase or rebound after all HRC is depleted. However, an increase in concentration appears unlikely and should not preclude closure.
- The site domestic well is located roughly 500 feet generally upgradient of groundwater contaminants. The site domestic well was sampled and was eliminated from concern in 2001.
- Closure is consistent with Section 111.G. of State Water Resources Control Board Resolution No. 92-49, allowing the 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, and will not result in water quality less than that prescribed by the Basin Plan.

Unless the Central Coast Water Board objects and pending monitoring well destruction, the Executive Officer will issue a case closure letter.

Attachment

5. Former Drug Lab Location Map

General NPDES permit for the Discharge of Highly Treated Groundwater

Dave and Lola Hart Family Trust, 1488 Freedom Boulevard, Watsonville, Santa Cruz County [John Mijares (805) 549-3696]

On October 1, 2007, Central Coast Water Board staff enrolled David Hart and Lola Hart Family Trust (property owners) to discharge highly treated groundwater, to a storm drain near Speedee Oil Change at 1488 Freedom Boulevard, Watsonville, under NPDES General Permit No. CA G993002, Order No. R3-2006-0067 (General Permit). The property owners agree to comply with all conditions contained in the General Permit and to ensure the protection of human health and the environment.

A Chevron Service Station operated at the site from 1958 to 1984. Chevron is responsible for the investigation and clean up of petroleum hydrocarbons that have leaked into soil and groundwater as a result of the operation of the former service station. During construction of the recently installed Speedee Oil Change facility, contaminated soil and groundwater were removed from the site. The proposed groundwater discharge is due to the possible need for dewatering in the vicinity of the building that includes a below-ground service bay. A french drain consisting of a four-inch diameter perforated pipe approximately nine feet below ground surface, will collect groundwater from the perimeter of the building and drains into a grated sump on the west side of the building. The groundwater in the sump will then be treated to drinking water standards, or to standards protective of aquatic life, using a particulate pre-filter, and three 200-pound carbon filters connected in series. The effluent from the treatment system will discharge into a storm drain along Freedom Boulevard. The storm drain ultimately discharges to an unnamed creek that drains into Watsonville Slough. Treatment system redundancy, routine inspection, maintenance, and confirmation sampling, as required under the

General Permit, will ensure that the discharge will pose no significant threat to water quality and the environment.

On August 20, 2007, Central Coast Water Board staff notified property owners within a 300-foot radius of the site of the proposed discharge. We have not received any comment or objection from the public as of the date of this report.

General NPDES Permit for Discharges with Low Threat to Water Quality

City of Pismo Beach, San Luis Obispo County [Sorrel Marks 805/549-3695]

Staff enrolled the City of Pismo Beach Water Supply System, San Luis Obispo County, under the General NPDES Permit for Discharges with Low Threat to Water Quality (Low Threat General Permit) on October 16, 2007. Discharges from the City's water supply system may occur as a result of ongoing management of the system; including development, testing, maintenance, disinfection, and hydrant testing. Such discharges will be managed so as to prevent soil erosion from high velocity discharges and will not include chlorine or other additives, which may be detrimental to water quality and/or threaten to violate water quality standards. Enrollment under the Low Threat General Permit requires the City of Pismo Beach to comply with Monitoring and Reporting Program No. R3-2006-0063 to ensure water quality protection and compliance with the permit conditions. Annual reports summarizing compliance monitoring are required as part of the Monitoring and Reporting Program.