

STATE OF CALIFORNIA  
CALIFORNIA WATER QUALITY CONTROL BOARD  
CENTRAL COAST REGION

STAFF REPORT FOR REGULAR MEETING OF OCTOBER 21, 2005

Prepared on September 27, 2005

ITEM: 10

SUBJECT: Low Threat and General Discharge Cases

DISCUSSION

Low Threat Cases

General NPDES Permit for Low Threat Discharges

Boy Scouts' Little Sur River Fish Passage and Habitat Enhancement Project, Camp Pico Blanco, Monterey County [Matt Thompson, 805/549-3159]

Water Board staff enrolled the Boy Scouts' Little Sur River Fish Passage and Habitat Enhancement Project under the General NPDES Permit for Discharges with Low Threat to Water Quality (Low Threat General Permit) on September 1, 2005. The project also received Clean Water Act Section 401 Certification on September 2, 2005 (see Executive Officer's Report).

The Boy Scouts plan to modify an existing flashboard dam structure and impoundment area to improve juvenile and adult steelhead trout passage, and install habitat enhancement structures. The Little Sur River will be diverted around the project site. Residual water will be dewatered. Approximately 86,400 gallons per day (gpd) will be pumped through a geotextile filter bag to capture any sediment and discharged downstream to Little Sur River. Work is scheduled from September 1, 2005 to October 15, 2005.

Enrollment under the Low Threat General Permit requires the Boy Scouts to comply with Monitoring and Reporting Program No. 01-119 (MRP). As a condition of enrollment, the Boy Scouts must monitor discharge turbidity daily and terminate the discharge if turbidity exceeds 5 nephelometric turbidity units.

Reservoir No. 1 Pipeline Relocation Project at Miossi Road and Highway 101, San Luis Obispo [Matt Thompson, 805/549-3159]

Water Board staff enrolled the City of San Luis Obispo's Reservoir No. 1 Pipeline Relocation Project discharge under the General NPDES Permit for Discharges with Low Threat to Water Quality (Low Threat General Permit) on September 9, 2005. Reservoir No. 1 is used to store water that has been treated at the City of San Luis Obispo's Water Treatment Plant prior to delivery to customers. However, since the existing 14-inch-diameter welded steel water transmission main has ceased to function efficiently, the City is relocating the water transmission main. In order to connect a new pipe to the reservoir, the water level must be drained to below the level of the pipe. Up to 1 million gallons of potable water will be drained through a 12 inch-diameter pipe that discharges into the unnamed tributary leading to San Luis Obispo Creek. The water will be dechlorinated prior to discharge, and will be monitored to ensure that no sediment is discharged. The discharge will last about four days.

Enrollment under the Low Threat General Permit requires the discharger to comply with Monitoring and Reporting Program No. 01-119 (MRP), which has been modified specifically for this discharge. The MRP requires daily monitoring of effluent flow, turbidity, and chlorine, as well as daily visual receiving water monitoring.

### **General Waste Discharge Requirements for Wineries**

Paraiso Vineyards, Monterey County [Sandy Cheek 805/542-4633]

Water Board staff enrolled Paraiso Vineyards in the General Waste Discharge Requirements for Discharges of Winery Waste, Order No. R3-2002-0084, on September 6, 2005. The Water Board has not previously regulated Paraiso Vineyards, located at 38060 Paraiso Springs Road in Soledad. Approximately 425 tons of grapes are processed and 25,000 cases of wine are produced annually with crushing and bottling occurring at the site. Peak winery process wastewater flows are approximately 8,250 gallons per day during the crush season. Process wastewater is treated with screening, aeration in a lined treatment pond, and then pumped to two unlined irrigation ponds where it is combined with water from an agricultural well and used to water the 418-acre site. Pomace, seeds, and stems are composted on the site and used in the vineyard. Enrollment requires the facility to comply with Monitoring and Reporting Program No. R3-2002-0084.

### **General Waste Discharge Requirements for Fertilizer and Pesticide Facilities**

Western Farm Service, Main Street, Santa Maria [Sandy Cheek 805/542-4633]

Water Board staff enrolled Western Farm Service Main Street, Santa Maria in the General Waste Discharge Requirements for Fertilizer and Water Pesticide Handling Facilities, Order No. R3-2005-0001, on September 27, 2005. Western Farm Service Main Street, Santa Maria was previously regulated under Order No. 92-076. This is an agricultural chemical facility that stores fertilizer and pesticide for application to growers' fields. Enrollment requires the facility to comply with Monitoring and Reporting Program No. R3-2005-0001. The MRP has been modified to include specific groundwater monitoring requirements.

### **General Waiver of Waste Discharge Requirement**

Santa Maria Asphalt Refinery, Santa Barbara County [Sorrel Marks 805/549-3695]

Upon receipt of an appropriately filed application, Water Board staff reviewed the submittal to ensure compliance with General Waiver conditions, inspected the project site, and propose to enroll Greka Energy's Santa Maria Asphalt Refinery under the General Waiver for Specific Types of Discharges, Resolution No. R3-2002-0115 (General Waiver). The proposed discharge includes treatment and reuse of approximately 21 million gallons of process wastewater over a one-year period. The wastewater is produced by boiler blow-down, water softeners, cooling towers, and crude tank residues. Wastewater will be treated through oil/water separator, ultra-violet light, filtration, adsorption to carbonized zeolite beds, and reverse osmosis. Treatment waste products from the oil separator will be returned to crude supplies and reverse osmosis brine will be re-injected with well stimulation water (heat treatments). Greka will store all treated wastewater on the site until monitoring confirms compliance with water quality objectives (appropriate for agricultural crop irrigation). The water will then be blended with irrigation supply and used on approximately 344 acres of bermed, irrigated croplands. Surface runoff of the wastewater is prohibited. To ensure water quality protection and demonstrate compliance with water quality objectives, Greka will collect and analyze representative samples of each batch of treated wastewater for constituents of concern. Prior to disposal of treated wastewater, Greka will compare sample results with appropriate water quality criteria to ensure compliance. Greka will submit quarterly reports summarizing wastewater discharge quantity and quality (including sample results). Unless the Board objects, staff will enroll Greka in the general waiver.

### **Staff Closed Cases**

Boulder Creek Golf and Country Club, 16901 Big Basin Highway, Boulder Creek, Santa Cruz County [Tom Sayles 805-542-4640]

A 2,000-gallon gasoline underground storage tank (UST) was removed in March 2004. Soil samples and a "grab" groundwater sample were collected from the tank excavation. Analytical results indicated no petroleum hydrocarbons constituents were detected in the soil. A concentration of 1,810 micrograms per liter ( $\mu\text{g/L}$ ) total petroleum hydrocarbon as gasoline (TPH-G), 59.2  $\mu\text{g/L}$

benzene, and 11 µg/L methyl tertiary-butyl ether (MTBE) were detected in the excavation water sample.

In July 2005, five Geoprobe® borings were installed and samples were collected to evaluate the extent of soil and groundwater contamination. All soil and groundwater sample results indicated non-detectable concentrations for TPH-G, benzene, and MTBE. The initial concentration detected in the "grab" excavation water sample does not appear to have been a representative of natural groundwater quality conditions.

A regional groundwater table was not encountered beneath the site during the July 2005 investigation. Groundwater occurs in thin, discontinuous lenses perched above the shallow bedrock.

Based on the data collected from site investigations, there is no threat to groundwater quality and no further investigation or cleanup is necessary. The Santa Cruz County Environmental Health Services Agency agrees with this determination. The Executive Officer issued a final case closure letter on September 6, 2005, requiring no further actions.

Chevron Service Station No. 9-1717, 151 Santa Rosa Street, San Luis Obispo, San Luis Obispo County [Corey Walsh 805-542-4781]

A release of gasoline was discovered during underground storage tank (UST) system upgrade work in November 1995. Soil contamination was observed during removal of the dispenser islands and piping, and approximately 716 tons of contaminated soil was removed. Further investigation was conducted and four groundwater monitoring wells were installed to evaluate the extent of soil and groundwater contamination. The site is currently a gasoline service station, which operates one 1,000-gallon waste oil UST, one 20,000-gallon gasoline UST, and two 10,000-gallon gasoline USTs.

Soil sample results from subsurface investigations indicate maximum soil concentrations of 1,500 milligrams per kilogram (mg/kg) total petroleum hydrocarbons as gasoline (TPH-g) and 8.1 mg/kg benzene prior to site remediation. Maximum groundwater contaminant concentrations indicated 600 micrograms per liter (µg/L) TPH-g, 4.6 µg/L

benzene, and 530 µg/L methyl tertiary-butyl ether (MTBE) in September 1997. However, recent groundwater data indicate all groundwater monitoring well results are below cleanup goals for TPH-g, benzene, toluene, ethylbenzene, xylenes and MTBE. During the May 18, 2005 groundwater sampling, maximum concentrations of TPH-g, benzene, and MTBE were detected at <50 µg/L, 0.7 µg/L, and 3.0 µg/L, respectively.

Depth to underlying groundwater has ranged from approximately 4 to 8 feet below ground surface. Groundwater flow is generally to the south/southeast with a gradient of 0.04 feet per foot. No municipal water wells are located within one mile of the subject site.

Based on the soil and groundwater cleanup actions and groundwater monitoring results, there is no threat to groundwater quality and no further soil or groundwater investigation or cleanup is necessary. The San Luis Obispo City Fire Department agrees with this determination. The property owner has been notified of the proposed case closure. 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.

Former Shell Service Station, 1145 Spring Street, Paso Robles, San Luis Obispo County [Corey Walsh 805-542-4781]

A release of gasoline was discovered during underground storage tank (UST) system upgrade work in November 2002. Soil contamination was observed during removal of the USTs and piping, and approximately 500 tons of contaminated soil were removed. Further investigation was conducted and three groundwater monitoring wells and two soil borings were installed to evaluate the extent of soil and groundwater contamination. The site is currently a gasoline service station, which operates two 12,000-gallon gasoline USTs.

Soil sample results from subsurface investigations indicate maximum soil concentrations of 4,800 milligrams per kilogram (mg/kg) total petroleum hydrocarbons as gasoline (TPH-g), <0.005 mg/kg benzene, and 2.6 mg/kg tertiary-butyl alcohol (TBA) prior to site remediation. Maximum groundwater contaminant concentrations indicated

3,600 micrograms per liter ( $\mu\text{g/L}$ ) TPH-g, 6.7  $\mu\text{g/L}$  benzene, 40  $\mu\text{g/L}$  TBA, and 30  $\mu\text{g/L}$  methyl tertiary-butyl ether (MTBE). However, the most recent groundwater data collected on July 6, 2005, indicate all groundwater monitoring well results are below cleanup goals for TPH-g, benzene, toluene, ethylbenzene, xylenes, TBA and MTBE. Sample results from July 6, 2005, indicate TPH-g, benzene, TBA and MTBE maximum concentrations of 550  $\mu\text{g/L}$ , <1  $\mu\text{g/L}$ , <10  $\mu\text{g/L}$  and <1  $\mu\text{g/L}$ , respectively.

Depth to underlying groundwater has ranged from approximately 20 to 25 feet below ground surface. Groundwater flow is generally to the northeast with a gradient of 0.017 feet per foot. No municipal water wells are located within 2,000 feet of the subject site.

Based on the soil cleanup actions and the groundwater monitoring results, there is no threat to groundwater quality and no further soil or groundwater investigation or cleanup is necessary. The San Luis Obispo County Division of Environmental Health agrees with this determination. The property owner has been notified of the proposed case closure. The responsible party will be 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.

#### Cases Recommended for Closure

Chalk Mountain Liquor, 9990 El Camino Real Blvd., Atascadero, San Luis Obispo County [Corey Walsh 805-542-4781]

Staff recommends closure of this underground storage tank (UST) case where groundwater sample results indicate groundwater pollution remains at concentrations greater than Central Coast Water Board (Water Board) cleanup goals for methyl tertiary-butyl ether (MTBE). Concentrations of 16 micrograms per liter ( $\mu\text{g/L}$ ) and 6.2  $\mu\text{g/L}$  MTBE remain in two monitoring wells MW-1 and MW-3, respectively. Attachment 1 presents a (Contaminants of Concern) *CoCs in Groundwater at End of Investigation* map. Other petroleum constituents of concern have been analyzed and have been below cleanup goals, or have not been detected, since December 2004.

A release of petroleum hydrocarbons was discovered in January 2002 during replacement of UST over-fill buckets. Grab shallow groundwater samples were collected, and a petroleum sheen was observed during the excavation to install the new over-fill buckets. Groundwater sample analysis indicated maximum concentrations of 360,000  $\mu\text{g/L}$  total petroleum hydrocarbons reported as gasoline (TPH-g), 17,000  $\mu\text{g/L}$  benzene, 350,000  $\mu\text{g/L}$  MTBE, and 20,000  $\mu\text{g/L}$  tributyl alcohol (TBA).

In September 2002, a soil and groundwater investigation was conducted with installation of three groundwater monitoring wells to evaluate the extent of soil and groundwater contamination. Further investigation was conducted in May 2004 with installation of two additional monitoring wells.

In May 2004, the USTs, dispensers, and piping were removed and the UST system was replaced. During UST removal, an approximately 60-millimeter thick excavation liner was observed and removed, and the excavation was dewatered of approximately 40,000 gallons of groundwater. The contaminated groundwater was pumped, treated, and discharged to the Atascadero City sewer system. Contaminated soil was excavated, and 475 cubic yards were transported to Kern River Oil Field for treatment and disposal. Soil sample results indicated maximum soil concentrations of 0.054 milligrams per kilogram (mg/kg) MTBE and 1.8 mg/kg TBA remain in-place.

June 2005 groundwater data indicate all groundwater monitoring results are below cleanup goals for TPH-g, benzene, toluene, ethylbenzene, xylenes, and TBA, except for MTBE reported at 16  $\mu\text{g/L}$  and 6.2  $\mu\text{g/L}$  in monitoring wells MW-1 and MW-3, respectively.

The site lies within the Atascadero Hydrologic Subarea (3-9.81) of the Salinas Hydrologic Unit. The "Water Quality Control Plan, Central Coast Region" (Basin Plan) designates groundwater beneficial uses to be domestic and municipal supply, agricultural supply, and industrial supply. Therefore, the groundwater cleanup goals for common petroleum hydrocarbons are as follows: 1,000  $\mu\text{g/L}$  total petroleum hydrocarbons (TPH), 1.0  $\mu\text{g/L}$  benzene, and 5.0  $\mu\text{g/L}$  for MTBE. The

TPH and MTBE cleanup goals have been established based on taste and odor thresholds, not health risks; the benzene goal is based on the California Primary Maximum Contaminant Level (MCL) which is based on health effects data, but also contains other information relating to technical and economic feasibility of attainment in a water distribution system.

The site is currently used as a service station and liquor store, which operates three 10,000-gallon gasoline USTs, and associated piping and fuel dispensing equipment.

Depth to groundwater currently ranges from approximately one to five feet (ft) below ground surface, and the groundwater flow direction is toward the east at an approximate gradient of 0.017 feet per foot. The nearest water well is reported to be the Heilmann Park irrigation well, owned by San Luis Obispo County Department of General Services, approximately 1,800 feet northeast of the site. The well was constructed with a concrete sanitary seal to 50 feet and is perforated from 140 feet to approximately 360 feet. No municipal water wells are located within one mile of the subject site.

The recommendation for closure is based on the following:

- (1) The majority of contaminant mass has been removed,
- (2) Remaining groundwater pollution (above cleanup goals) is limited in extent and decreasing in concentration,
- (3) Remaining hydrocarbon constituents are unlikely to reach a drinking water supply well,
- (4) MTBE concentrations are above the taste and odor threshold of 5.0 µg/L in two wells onsite. MTBE has not been detected downgradient of these wells, and is expected to continue to decline in concentration through natural attenuation mechanisms, such as volatilization, dispersion, dilution, advection, adsorption, and biodegradation. MTBE concentrations have been below 20 µg/L since December 2004, and have declined from a maximum concentration of 50 µg/L detected in September 22, 2004,

- (5) The concentration of 16 µg/L MTBE in MW-1 is marginally above the primary MCL of 13 µg/L, and
- (6) Closure is consistent with Section III.G. of State 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.

In addition, Water Board staff has evaluated remaining groundwater concentrations with respect to possible indoor air impacts, and soil concentrations with respect to direct human exposure, indoor air impacts, and potential leachability to groundwater. Comparison of these soil and groundwater concentrations with corresponding environmental screening levels for residential land use and construction worker direct exposure scenarios indicate no significant threat to human health or the environment.

Based on the soil and groundwater cleanup actions and groundwater monitoring results, there is no threat to groundwater resources and no further soil or groundwater investigation or cleanup is necessary. In addition, San Luis Obispo County Division of Environmental Health, as the lead agency for soil investigation and cleanup activities, has concurred with case closure. The property owner has been notified of the proposed case closure.

Unless the Water Board objects, and pending monitoring well destruction, the Executive Officer will issue a case closure letter pursuant to California Underground Storage Tank Regulations.

#### ATTACHMENTS

1. Site Map