STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION

STAFF REPORT FOR REGULAR MEETING MAY 11-12, 2006

Prepared April 12, 2006

ITEM NUMBER: 12

SUBJECT: Low Threat and General Discharge Cases

DISCUSSION

Statewide General WDRs for Discharge to Land

Prunetree Shopping Center, Monterey County, [Cecile DeMartini, 805/542-4782]

The Regional Board adopted Waste Discharge Requirements Order No. 87-146 to regulate a sanitary wastewater discharge from the Prunetree Shopping Center. That Order, adopted in 1987, is due for a regularly scheduled update. Staff recommends rescinding Order No. 87-146 and regulating the Discharger using the *Statewide General Waste Discharge Requirements for Discharges to Land by Small Domestic Wastewater Treatment Systems* (Order No. 97-10-DWQ). The Discharger was notified of staff's recommendation on March 6, 2006, and has no objection. See Item No. 15 for additional information.

General NPDES permit for Low-Threat Discharges

Well Development and Pumping Test, Santa Ynez River Water Conservation District, Santa Barbara County [David LaCaro 805/549-3892]

Staff enrolled the Santa Ynez River Water Conservations District (District) groundwater well testing activities under the NPDES General Permit for Low Threat Discharges to Surface Water (General Permit) Order No. 01-119, on March 29, 2006. Proposed discharges will result from the installation of three water supply wells (Wells 25, 27, and 28). The water supply wells will be installed to monitor the Santa Ynez Upland Groundwater Basin. Supply well development and test pumping water will be discharged to an adjacent unnamed drainage tributary to Alamo Pintado Creek and Santa Ynez River. Anticipated production rates will range from 500 to 1,500 gallons per minute. Initial pump test and development discharges will last for a period of 48 hours with periodic flushing occurring up to four times a year for a duration of one to two hours. Energy dissipation and/or other methods of erosion control will be provided for each well discharge location.

The District, as a part of its application, submitted analytical results from existing monitoring wells located in Santa Ynez Valley. Analytical results demonstrated that levels of metals, organics, and other constituents required by Section A of the General Permit were detected below MCLs and basin Plan Objectives (Table 3-8).

Staff modified the General Permit Monitoring and Reporting Program (MRP) to fit the characteristics of the discharges. Total chlorine residual, oil and grease, acute toxicity, dissolved oxygen, and total fecal coliform were removed from Section A.2, *Discharge Monitoring*, because the discharge is composed of drinking water supply groundwater. Furthermore, the Santa Ynez River Water Conservation District is obligated to comply with Santa Barbara County Environmental Health Departments requirements for drinking water supply.

Water Supply Maintenance, Hydrostatic Testing, Flushing Activities, Goleta Water District, Santa Barbara County [David LaCaro 805/542-4782

Goleta Water District is currently enrolled under the NPDES General Permit for Low Threat Discharges to Surface Water (General Permit) Order No. 01-119. In a Notice of Intent dated February 3, 2006, the District proposes to enroll additional discharges resulting from routine maintenance of potable water supply systems, hydrostatic testing of potable water supply vessels, and fire hydrant testing and flushing activities. Staff approved the proposed change in enrollment by letter dated, March 30, 2006.

Staff modified the General Permit Monitoring and Reporting Program (MRP) to fit the characteristics of the discharges. Total chlorine residual, oil and grease, acute toxicity, dissolved oxygen, and total fecal coliform were removed from Section A.2, *Discharge Monitoring,* because the discharge is composed of potable water.

Recycled Water Pipeline Flushing, City of San Luis Obispo, San Luis Obispo County [Allison Millhollen 805/549-3882]

Water Board staff enrolled the City of San Luis Obispo's recycled water pipelines commissioning discharges under the General NPDES Permit for Discharges with Low Threat to Water Quality (Low Threat General Permit) on April 11, 2006. The City will be commissioning the recycled water pipelines by flushing the chlorinated potable water from the pipelines with tertiary-treated water. The City will try to direct the discharge back into the City's wastewater collection system or to land whenever possible. However, if this is not feasible, less than 0.1 million gallons per day of tertiary-treated water will be discharged directly to a storm drain or nearby creek. The flushing will be done at several locations across the City of San Luis Obispo, but discharges to surface waters are anticipated at Acacia Creek near Broad Street. The water will be dechlorinated prior to discharge, and will be monitored to ensure the discharge does not cause sediment or debris to enter the creek. The discharge will be done intermittently over a two-week period.

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, pH, turbidity, and chlorine, as well as daily visual receiving water monitoring.

Station 22-02 Drinking Water Well Development and Production Flow Test, California Water Service Company, Salinas District, Monterey County [Cecile DeMartini 805/542-4782]

Regional Board staff received an application from the California Water Service Company regarding the development and production flow testing of a drinking water supply well in Salinas (Cal Water Well Station 22-02) that has been installed down to 650 below ground surface (bgs; the middle aquifer).

Recent zone-specific sampling and analysis has shown that perchloroethylene (PCE) is present at Station 22-02 at various depths. Dehalogenation byproducts of PCE (i.e., trichloroethene, dichloroethene, and vinyl chloride) have not been detected at depth.

A maximum discharge flow rate of approximately 600 gallons per minute (GPM) is expected during the development of the well. Development of the well will take approximately 15 hours. A maximum discharge flow rate of approximately 3,000 GPM is expected during production flow testing. The production flow test is expected to occur from 8 to 10 hours a day for four days with a total discharge volume of approximately 1.8 million gallons. Best management practices for erosion control, including energy dissipaters, such as geotextile barriers, gravel bags or plastic tarps, will be used as necessary at the site and the location where the discharge enters the Markley Swamp and Reclamation Ditch. Monterey County Water Resources Agency, owner of the Reclamation Ditch, has approved the

discharge and use of the temporary erosion controls in the ditch.

Five granular activated carbon (GAC) vessels loaded with unused carbon will be installed after the two Baker tanks. Vessel configuration consists of three sets of vessels plumbed in parallel. One of the three vessel configurations is a single vessel containing 10,000 lbs of virgin carbon. The other two vessel configurations consist of a double vessel system with each vessel containing 5,000 lbs of unused carbon for a total of 10,000 lbs of unused carbon. Each of the three sets of vessels is capable of receiving 1,000 gallons per minute of discharged water. Approximate contact time between the discharge water and the GAC is 2.6 minutes, which is adequate to remove the highest detected concentration of PCE at 6.8 micrograms per liter (µg/L). Calculated carbon usage estimate with safety factors is 10-lbs GAC/day. Total discharge duration of the project is five days for a total of 60 hours. Redundant spray nozzles within each GAC unit reduces the occurrence of channeling between the carbon media.

Larger sediments will be removed via settling within the Baker tanks and a Clear Creek Systems BF-600 bag filter unit. If necessary, Aqua-Clear PFD flocculent may be added to the second tank to precipitate the finer solids.

Dechlorination of extracted well water will occur within the Baker tanks prior to the GAC system if total residual chlorine is detected at a concentration of 0.02 mg/L or greater. Discharges will be dechlorinated using either undiluted Captor 30% calcium thiosulfate liquid or Vita-D-Chlor (ascorbic acid) tablets.

Regional Board staff has modified Monitoring and Reporting Program (MRP) No. 01-119 to specifically address the expected discharge. The modified MRP includes daily monitoring for volatile organic carbons (VOCs) between the dual GAC vessels and after the single GAC vessel.

The Discharger has agreed to comply with the terms of the General Permit, and will implement mitigation measures to avoid or reduce significant impacts. The staff notified the Discharger was notified of its enrollment in the General Low Threat Permit on March 22, 2006.

Statewide General NPDES Permit for Aquatic Herbicides

Clean Lakes Incorporated, Lake Alisal, Santa Barbara County [David LaCaro 805/549-3892]

Staff enrolled Clean Lakes Incorporated (CLI) into the NPDES General Permit for the Discharger of Aquatic Pesticides for Aquatic Weed Control in Waters of the United States Order No. 2004-0009-DWQ (General Permit), on March 10, 2006. CLI submitted a Notice of Intent application for coverage under the General Permit June 10, 2005. CLI will be applying aquatic pesticides to Lake Alisal, located in the City of Solvang, Santa Barbara County. Aquatic pesticides to be used include Cultrine-Ultra (Copper as Elemental) and Reqard (Diquat) with Cygnet Plus Spray Adjuvant (D, limonene). The aforementioned pesticides are all covered under Finding 12 of the General Permit. Organisms to be targeted include algae, surface aquatic weeks, submerged aquatic weeds, and emergents (i.e., cattail and bulrush). Aquatic pesticides will be applied annually, April through October, on an as-needed basis. Application, monitoring, and reporting will be consistent with the Aquatic Pesticide Application Plan (APAP) developed by CLI, March 2005. The APAP is consistent with the Section E, General Permit requirement.

General WDRs for Wineries

Braveheart Winery, Paso Robles, San Luis Obispo County [Tom Kukol, 805/549-3689]

Regional Board staff enrolled Braveheart Winery under the General Waste Discharge Requirements for Discharges of Winery Waste on March 24, 2006.

Braveheart Winery's waste discharge is described as follows:

- The facility is located in Paso Robles, San Luis Obispo County.

- Wine production at Braveheart Winery will not exceed 20,000 cases of wine annually. Expected average and peak winery process wastewater flows are 1,300 and 1,600 gallons per day, respectively, during the crush season.

- The treatment system consists of floor drain screens, a gravity collection system, a septic tank (clarification), a treatment constructed wetland (biological treatment) and a storage pond.

- Processed wastewater in the storage pond will be disposed of by evaporation or supplemental irrigation.

- Solids generated from wine production will be composted on-site and incorporated into the surrounding soils.

Enrollment under the General WDRs requires Braveheart Winery to comply with Monitoring and Reporting Program (MRP) No. R3-2003-0084. The MRP has been modified to eliminate content not relevant to the facility (such as monitoring frequencies for smaller wineries). Water supply quality, wine production, chemical usage, effluent flow and quality, and pond and disposal area monitoring are required. Groundwater and disposal area soils monitoring are not required as the treatment and disposal method presents little or no threat to underlying groundwater quality. Regional Board staff may begin regular inspections of Braveheart Winery this fall to ensure continued compliance with the General WDRs

Arciero Winery, San Luis Obispo County, [Tom Kukol 805/549-3689]

Regional Board staff enrolled Arciero Winery under the General Waste Discharge Requirements for Discharges of Winery Waste on April 14, 2006.

Arciero Winery's waste discharge is described as follows:

- The facility is located at 1990 Highway 46 East, Shandon, San Luis Obispo County

- The treatment system consists of a sump station with a Flexrake, two constructed wetland treatment beds for biological treatment, and an evapotranspiration/percolation constructed wetland for wastewater disposal.

- Solid waste generated from initial solids separation of lees and screenings from floor drains will be composted for at least six months prior to incorporation into surrounding soils.

Enrollment under the General WDRs requires Arciero Winery to comply with Monitoring and Reporting Program (MRP) No. R3-2003-0084. The MRP has been modified to eliminate content not relevant to the facility (such as monitoring frequencies for smaller wineries). Water supply quality, wine production, chemical usage, effluent flow and quality, and pond and disposal area monitoring are required. Groundwater and disposal area soils monitoring are not required as the treatment and disposal method presents little or no threat to underlying groundwater quality. Regional Board staff may begin regular inspections of Arciero Winery this fall to ensure continued compliance with the General WDRs.

Opolo Vineyards, San Luis Obispo County, [Tom Kukol 805/549-3689]

Regional Board staff enrolled Opolo Vineyards under the General Waste Discharge Requirements for Discharges of Winery Waste on April 21, 2006.

Opolo Vineyards's waste discharge is described as follows:

- The facility is located at 7110 Vineyard Drive, Paso Robles, San Luis Obispo County

- The treatment system consists of a septic tank, a constructed wetland, and a lined, aerated storage pond.

- Disposal of treated winery wastewater will be evaporation and land application in pasture areas adjacent to the existing vineyard.

- Solid waste generated will be disposed of off-site by an approved facility.

Enrollment under the General WDRs requires Opolo Vineyards to comply with Monitoring and Reporting Program (MRP) No. R3-2003-0084. The MRP has been modified to eliminate content not relevant to the facility (such as monitoring frequencies for smaller wineries). Water supply quality, wine production, chemical usage, effluent flow and quality, and pond and disposal area monitoring are required. Groundwater and disposal area soils monitoring are not required as the treatment and disposal method presents little or no threat to underlying groundwater quality. Regional Board staff may begin regular inspections of Opolo Vineyards this fall to ensure continued compliance with the General WDRs.

Cases Recommended for Closure

Gil's Texaco, 100 Alta Street, Gonzales, Monterey County [John Goni, 805/542-4628]

Staff recommends closure of this leaking underground storage tank (UST) case where concentrations of petroleum hydrocarbons constituents have attenuated to near water quality objectives. Groundwater sampling results from May 2005, indicate maximum concentrations in monitoring well MW-1 of 3.7 milligrams per liter (mg/L) total petroleum hydrocarbons (TPH), 23 micrograms per liter (µg/L) benzene, and less than 25 µg/L methyl tertiary-butyl ether (MTBE). Toluene, ethylbenzene, xylenes, and tert butyl-alcohol concentrations are below cleanup goals.

The site is a former service station. The responsible party commissioned removal of two 2,000-gallon underground storage fuel tanks, and an undetermined volume of contaminated soil from the site in 1987. Two other tanks, one 2,000-gallon and one 10,000-gallon, were removed in 1993 when service station operations ceased. Groundwater monitoring conducted by consultants on behalf of the responsible party in June 1988 indicated maximum concentrations of 490 mg/L TPH, 47,000 µg/L benzene, 70,000 µg/L toluene, 5,000 µg/L ethylbenzene, and 38,000 µg/L xylenes. Free hydrocarbon product was encountered and removed from one monitoring well and an additional recovery well in August and September 1990. MTBE monitoring was initiated in 1995, and a maximum concentration of 240 µg/L was detected on April 1, 2000. The responsible party's consultant ultimately installed 17 monitoring wells on- and offsite. Contaminant concentrations have decreased by natural attenuation process to the concentrations discussed in the paragraph above.

The TPH, benzene, and MTBE contaminant plumes extend off-site and down-gradient under the Alta Street right-of-way and beyond to a private property as shown for benzene and MTBE on Attachments **1** and **2**, respectively.

Groundwater is approximately 40 feet below ground surface and flows in a northwesterly direction at a gradient of 0.0010 to 0.0016 ft/ft. The nearest domestic supply well is approximately 500 feet up-gradient of the former tanks. The nearest municipal supply well is approximately ¼ mile cross-gradient of the former tanks. The remaining residual petroleum hydrocarbons are unlikely to impact these wells considering the distance, groundwater flow direction, well construction details, and chemical characteristics (including concentrations) of the contaminants.

The site is within the Chular Hydrologic Area of the Salinas River Hydrologic Unit (309.20), for which the "Water Quality Control Plan,

Central Coast Region" (Basin Plan) designates groundwater as having beneficial uses of domestic and municipal supply, agricultural supply, and industrial supply. Therefore, current cleanup goals for common hydrocarbon constituents are as follows: 1.0 mg/L–TPH, 1 µg/L-benzene, and 5 µg/L–MTBE.

The groundwater plume extent has been adequately characterized and is contracting or declining in size and concentration, the contaminant mass has been removed from the site to the extent practical, and monitoring data indicate the petroleum hydrocarbon concentrations are expected to continue to decrease with time. Therefore, based on the information provided, we have no further requirements for groundwater monitoring, investigation or cleanup of the site.

Our recommendation for closure is based on the following:

(1) The majority of contaminant mass was removed at the time of tank removal and during free product removal,
(2) Remaining groundwater pollution above cleanup goals is limited in extent and decreasing in size and concentration,
(3) Remaining hydrocarbon constituents are unlikely to reach a drinking water supply well,
(4) MTBE concentrations above the cleanup goal of 5.0 µg/L are limited to an area immediately down and cross-gradient of the site.
(5) 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, Monterey County Health Department, as the lead agency for soil investigation and cleanup activities, has concurred with case closure. The property owner/fee title owner, the City of Gonzales, and the off-site property owner have been notified of the proposed case closure and not objected.

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.

Carpinteria State Beach Maintenance Facility, 5361 6th Street, Carpinteria, Santa Barbara County [John Mijares 805/549-3696]

Staff recommends closure of this underground storage tank (UST) case where groundwater sample results indicated groundwater contamination remains at concentrations greater than Central Coast Water Board (Water Board) cleanup goal of 1 microgram per liter (µg/L) for benzene. Other petroleum hydrocarbon constituents were either not detected or were below their respective cleanup goals. Benzene was detected in only one monitoring well at a concentration of 5.5 µg/L in July 2004 when the last monitoring was conducted. Benzene concentrations have steadily declined from 46 µg/L to 5.5 µg/L between December 1994 and July 2004.

The responsible party removed a 1,000-gallon gasoline UST from the facility in March 1989. Residual concentrations of total petroleum hydrocarbons (TPH), benzene, ethylbenzene, and xylenes were detected in soil; however, results of soil assessments conducted in August 1989 and December 1994 indicated decreasing concentrations of these constituents due to natural attenuation processes. Maximum soil contaminant concentrations in December 1994 were 640 milligrams per kilogram (mg/kg) TPH, 0.87 mg/kg benzene, 6.4 mg/kg ethylbenzene, and 9.5 mg/kg xylenes. Water Board staff understand that the Santa Barbara County Fire Department, Fire Prevention Division will require that a deed restriction be placed on the property that will require additional assessment of soil conditions, and possible removal of contaminated soil, if the land use changes from commercial use in the future.

The depth to groundwater is approximately 10 feet and the flow direction varies from north to southwest at a gradient between 0.0002 to 0.007 feet per foot. The nearest water supply well is located approximately 1700 feet to the west of the site. Considering this distance and the low concentration of benzene, the residual contamination is not expected to impact this well.

The site lies within the Carpinteria Groundwater Basin (3-18). 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 goal for benzene is 1.0 µg/L based on the California Primary Maximum Contaminant Level.

Water Board staff and Santa Barbara County Fire Department, Fire Prevention Division staff recommend closure of this case based on the following:

1. The tank and source of contamination was removed from the site;
2. The extent of soil and groundwater contamination have been fully characterized;
3. The concentration of 5.5 µg/L benzene in one well is only slightly above the cleanup goal of 1 µg/L.
4. Soil and groundwater data indicate that natural attenuation processes have significantly reduced concentrations of contaminants in soil and groundwater and that natural attenuation is expected to continue; and
5. 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.

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 commercial land use and construction worker direct exposure scenarios indicate no significant threat to human health or the environment.

The recommended case closure is consistent with closure of similar low risk petroleum hydrocarbon cases by the Water Board in the past. Unless the Water Board objects, the Executive Officer will issue a concurrence letter to Santa Barbara County Fire Department to proceed with case closure activities including destruction of monitoring wells.

Attachments

1. Benzene Plume Map, Former Gil's Texaco Site.
2. MTBE Plume Map, Former Gil's Texaco Site.