

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

STAFF REPORT FOR REGULAR MEETING DECEMBER 1, 2006

Prepared October 20, 2006

ITEM NUMBER: 6

SUBJECT: Low Threat and General Discharge Cases

DISCUSSION:

General WDRs for Wineries

Thunderbolt Junction Winery, Paso Robles, San Luis Obispo County [Tom Kukol 805/549-3694]

Regional Board staff was informed that HMR Winery was sold to Thunderbolt Junction Winery located at 2740 Hidden Mountain Road, west of Paso Robles, in San Luis Obispo County and that Thunderbolt Junction Winery assumed operation of the HMR winery wastewater treatment system. During the crush season, HMR Winery had an average wastewater flow of 2,000 gallons per day (gpd) and a peak wastewater flow of 3,000 gpd. Although the facility bottles less than 5,000 cases per year, the winery generates wastewater at a rate typical of a medium-sized winery. Though HMR Winery received a waiver of waste discharge requirements (WDRs) on February 25, 2004, Central Coast Water Board staff deemed it more appropriate for Thunderbolt Junction Winery to be enrolled under the General WDRs for Wineries. Thunderbolt Junction Winery must inform Central Coast Water Board staff if changes are made to the facility and process system described in the Notice of Intent submitted by HMR Winery, Inc. in August 2003.

Enrollment under the General WDRs requires Thunderbolt Junction Winery to follow Monitoring and Reporting Program (MRP) No. R3-2003-0084. Regional Board staff will begin regular compliance

inspections of Thunderbolt Junction Winery this fall.

Small Winery Waivers, [Harvey Packard, 805/542-4639]

The Regional Board adopted *General Waste Discharge Requirements for Discharges of Winery Waste* (General Winery WDR) on November 1, 2002. A component of the General Winery WDR authorizes the Executive Officer enroll small wineries that pose little or no threat to water quality in a general waiver of waste discharge requirements. The General Winery WDR defines "small winery" as one crushing less than or equal to 80 tons of grapes per year, or producing less than or equal to 5,000 cases or 13,000 gallons of wine per year. In general, small wineries generate 200 to 300 gallons per day (long-term average) of process wastewater, most of which originates from equipment (tanks, barrels, floors, etc.) cleaning. Waiver enrollments expire five years from the date granted or whenever the winery no longer meets the definition of small, whichever is sooner.

The following table identifies wineries enrolled in the small winery waiver between March 4, 2005, and October 19, 2006.

Facility Name	Facility Location	Production and Discharge Description	Date of Waiver Enrollment	Regional Board Staff Contact
Hoage Winery	870 Arbor Road Paso Robles, San Luis Obispo County	Hoage Winery produces up to 3,000 cases of wine per year and generates minimal winery process wastewater. Winery wastewater from equipment, floor and barrel cleaning flows through screens to a settling tank, then into an irrigation reservoir for application to the vineyard. The solids will be composted in the vineyard. Depth to groundwater beneath the disposal area is greater than 100 feet. The disposal area is greater than 100 feet from any water supply wells or water bodies.	March 4, 2005	Tom Kukol 805/549-3689
Calcareous Winery	3000 Peachy Canyon Road, Paso Robles	Calcareous Winery produces up to 5,000 cases of wine per year and generates up to 500 gallons per day of winery process wastewater. Process wastewater is screened by basket strainers, settled in a 4,500-gallon septic tank equipped with an effluent filter, and disposed to two 264-lineal foot leachfields. The disposal area is greater than 100 feet from any water supply wells or water bodies. Depth to groundwater beneath the disposal area is estimated to be greater than 100 feet. Pomace and lees are composted and distributed throughout the vineyards. The disposal area is greater than 100 feet from any water supply wells or water bodies.	March 4, 2005	Tom Kukol 805/549-3689
Rio Seco Vineyard and Winery	4295 Union Road Paso Robles	Rio Seco Vineyard and Winery produces up to 2,500 cases of wine per year and generates minimal winery process wastewater. Winery wastewater from equipment, floor and barrel cleaning flows to an evaporation pond and can be pumped to the vineyard for irrigation. The solids will be composted in the vineyard. Depth to groundwater beneath the disposal area is greater than 20 feet. The disposal area is	March 15, 2005	Tom Kukol 805/549-3689

Facility Name	Facility Location	Production and Discharge Description	Date of Waiver Enrollment	Regional Board Staff Contact
		greater than 100 feet from any water supply wells or water bodies.		
Saucelito Canyon Vineyard	3080 Biddle Ranch Road, Edna Valley, San Luis Obispo County	Saucelito Canyon Vineyards' new winery will produce up to 1,500 cases of wine annually, and generate up to 400 gallons per day of winery process wastewater. Wastewater will be treated and disposed of through a septic tank equipped with an effluent filter, and dual leachfields. The disposal area is greater than 100 feet from any water supply wells or water bodies. Pomace will be spread on site.	March 24, 2005	Allison Domingue z 805/549-3882]
Bonny Doon Vineyard	328 Ingalls Street, Santa Cruz	Bonny Doon Vineyard produces less than 1,000 cases of wine annually. Wastewater is captured in a holding tank, from which it is transferred to the City's sewer system.		Michael Higgins 805/542-4649
Saxby Winery	4880 Glenhill Lane, Paso Robles	Saxby Winery produces up to 1,000 cases of wine per year and generates minimal winery process wastewater. Winery wastewater from equipment, floor and barrel cleaning flows through 3/8-inch basket screens and a clarification tank before being pumped into a small trailer-mounted poly tank for immediate application to vineyard roads for dust control. The solids will be composted in the vineyard. Depth to groundwater beneath the disposal area is greater than 20 feet. The disposal area is greater than 100 feet from any water supply wells or water bodies.	April 15, 2005	Tom Kukol 805/549-3689
Pozzuoli Winery	San Miguel, San Luis Obispo County	Pozzuoli Winery produces up to 1,000 cases of wine per year and generates minimal winery process wastewater. Winery wastewater from equipment, floor and barrel cleaning flows through 3/8-inch basket screens before entering the vineyard. Solids will be composted in the vineyard. Depth to groundwater beneath the disposal area is greater	April 18, 2005	Tom Kukol 805/549-3689

Facility Name	Facility Location	Production and Discharge Description	Date of Waiver Enrollment	Regional Board Staff Contact
		than 20 feet. The disposal area is greater than 100 feet from any water supply wells or water bodies.		
Toucan Wines	3850 Acre Wood Place, Arroyo Grande, San Luis Obispo County	Toucan Wines produces up to 450 cases of wine annually, and generates up to 100 gallons per day of winery process wastewater. Process wastewater is directed to a nearby grove of trees, where it is absorbed into soil and irrigates the trees. This disposal area is 200 feet from any water supply wells or water bodies. Pomace is composted and spread on site.	April 28, 2005	Sorrel Marks 805/549-3695
Frankel Vineyards	5125 Linne Road, Paso Robles	Frankel Vineyards produces up to 5,000 cases of wine per year and generates minimal winery process wastewater. Winery wastewater from equipment, floor and barrel cleaning flows through 3/8-inch basket screens and a clarification tank before being pumped into a small trailer-mounted poly tank for immediate application to vineyard roads for dust control. The solids will be composted in the vineyard. Depth to groundwater beneath the disposal area is greater than 100 feet. The disposal area is greater than 100 feet from any water supply wells or water bodies.	May 23, 2005	Tom Kukol 805/549-3689
Martin Ranch Winery	6675 Redwood Retreat Road, Gilroy, Santa Clara County	Martin Ranch Winery produces up to 3500 cases of wine annually, and generates up to approximately 200 gallons per day of winery process wastewater. Process wastewater is recycled into surrounding vineyards and flowerbeds. Depth to groundwater beneath the disposal area is approximately 40 feet. The wastewater disposal area is approximately 600 feet from any water supply wells. Pomace is composted and incorporated back into surrounding vineyards.	June 17, 2005	Michael Higgins 805/542-4649

Facility Name	Facility Location	Production and Discharge Description	Date of Waiver Enrollment	Regional Board Staff Contact
Volo Del Corvo Winery	65401 Cross Road, Lockwood, Monterey County	Volo Del Corvo Winery will produce up to 2,000 cases of wine per year and generates minimal winery process wastewater. Winery wastewater from equipment, floor and barrel cleaning will be discharged to the surrounding olive orchard for irrigation. Depth to groundwater beneath the disposal area is greater than 20 feet.	August 31, 2005	Tom Kukol 805/549-3689
Wasserman Vineyards & Winery	6010 El Pomar Drive Templeton, San Luis Obispo County	Wasserman Vineyards & Winery produces less than 5,000 cases of wine per year and generates minimal winery process wastewater. Winery wastewater from equipment, floor and barrel cleaning is discharged to the surrounding vineyard. Depth to groundwater beneath the disposal area is greater than 20 feet.	September 21, 2005	Tom Kukol 805/549-3689
Whalebone Winery	8325 Vineyard Way Paso Robles, San Luis Obispo County	Whalebone Winery will produce less than 5,000 cases of wine per year and will generate minimal winery process wastewater. Winery wastewater from equipment, floor, and barrel cleaning will be discharged to the surrounding vineyard. Depth to groundwater beneath the disposal area is greater than 20 feet.	September 21, 2005	Tom Kukol 805/549-3689
Wallace Jones Winery	6470 Vineyard Dr., Hollister, San Benito County	Wallace Jones Winery will produce approximately 500 cases of wine per year and will generate minimal winery process wastewater. Winery wastewater from equipment, floor, and barrel cleaning will be discharged to the surrounding vineyard. Depth to groundwater beneath the disposal area is greater than 100 feet.	November 18, 2005	Cecile DeMartini 805/542-4782
Jack Creek Cellars	5265 Jack Creek Road Templeton, San Luis Obispo County	Jack Creek Cellars will produce less than 5,000 cases of wine per year and will generate minimal winery process wastewater. Winery wastewater from equipment, floor, and barrel cleaning will be discharged to the surrounding vineyard. Depth to groundwater	December 20, 2005	Tom Kukol 805/549-3689

Facility Name	Facility Location	Production and Discharge Description	Date of Waiver Enrollment	Regional Board Staff Contact
		beneath the disposal area is greater than 20 feet.		
Teague Vineyard	9355 Fairview Road Hollister, San Benito County	Teague Vineyard will process less than 80 tons of grapes per year and generates minimal winery process wastewater. Winery wastewater from equipment, floor and barrel cleaning will be discharged to the surrounding apricot orchard for irrigation. Depth to groundwater beneath the disposal area is greater than 20 feet.	December 30, 2005	Cecile DeMartini 805/542-4782
Chockrock Vineyards	42875 E. Carmel Valley Road, Greenfield, Monterey County	Chockrock Vineyards will produce less than 5,000 cases of wine per year and generates minimal winery process wastewater. Winery wastewater will be processed (strained and solids allowed to settle) before discharging to the surrounding vineyard for dust abatement and vineyard irrigation. Pomace will be composted and spread across the vineyard. Depth to groundwater is greater than 20 feet.	January 13, 2006	Tom Kukol 805/549-3689
Bluebelly Estate Winery	4580 Parkhill Road, Santa Margarita, San Luis Obispo County	Bluebelly Estate Winery produces less than 5,000 cases of wine per year and generates minimal winery process wastewater. Winery wastewater will be discharged to the surrounding vineyard.	January 17, 2006	Allison Dominguez 805/549-3882]
Laura's Vineyard	5620 East Highway 46, Paso Robles, San Luis Obispo County	Laura's Vineyard produces less than 5,000 cases of wine per year and generates minimal winery process wastewater. This site will be used for fermentation of juice imported offsite. The grapes and product will be processed off-site.	February 3, 2006	Tom Kukol 805/549-3689
Manzoni Estate Vineyard	30981 River Road, Gonzales, Monterey County	Manzoni Estate Vineyard will produce less than 5,000 cases of wine per year and generates minimal winery process wastewater. Pomace is hauled off-site to be composted. Winery wastewater from equipment and floors are collected in a concrete holding tank and allowed to evaporate.	February 16, 2006	Tom Kukol 805/549-3689

Facility Name	Facility Location	Production and Discharge Description	Date of Waiver Enrollment	Regional Board Staff Contact
		Wastewater may be use for dust abatement, if needed. Depth to the groundwater table is greater than 20 ft.		
Rocky Creek Cellars	8687 Apple Road, Templeton, San Luis Obispo County	Rocky Creek Cellars produces less than 5,000 cases of wine per year and generates minimal winery process wastewater. A water well is located 1,200 feet from the vineyard at a depth of 186 feet. Treated wastewater is recycled to be used for dust abatement and the pomace generated is disposed of on the vineyard.	March 20, 2006	Tom Kukol 805/549-3689
J. Paul Winery	4889 Dry Creek Road, Paso Robles, San Luis Obispo County	Paul Winery produces 5,000 cases of wine per year and generates minimal winery process wastewater. Winery wastewater is screened to retain solids before conveyed to a septic tank and leach field system. The nearest supply well is located about 270 ft from the leach field area. Depth to groundwater is about 240 ft.	May 19, 2006	Tom Kukol 805/549-3689
Mannon Winery	7440 Old Adobe Way, Atascadero, San Luis Obispo County	Mannon Winery produces less than 5,000 cases of wine per year and generates minimal winery process wastewater. Winery wastewater is screened to retain solids and conveyed to a 2,500 gallon septic tank before being pumped to a 5,000 gallon storage tank. Treated wastewater is recycled for pasture irrigation. The owner indicated that depth to groundwater is greater than 100 ft.	June 16, 2006	Allison Dominguez 805/549-3882
Jensen Vineyards	2640 Anderson Road Paso Robles, San Luis Obispo	Jensen Vineyards produces less than 5,000 cases of wine per year and generates minimal winery process wastewater. Winery wastewater will be discharged to the surrounding vineyard.	June 5, 2006	Tom Kukol 805/549-3689
Wild Rose Vineyard	3000 Oakdale Road Paso Robles, San Luis Obispo	Wild Rose Vineyards produces less than 5,000 cases of wine per year and generates minimal winery process wastewater. Winery wastewater will be discharged to the surrounding vineyard over an area	June 15, 2006	Tom Kukol 805/549-3689

Facility Name	Facility Location	Production and Discharge Description	Date of Waiver Enrollment	Regional Board Staff Contact
		of 20 acres. Depth to groundwater is about 70 ft.		
Mastantuono Winery	2720 Oak View Rd. Templeton, San Luis Obispo	Mastantuono Winery produces less than 5,000 cases of wine per year and generates minimal winery process wastewater. Winery wastewater will be discharged to a septic tank and leach field system. The lees are recycled, by applying them to an adjacent vineyard, and the remaining solids are removed from the site by a tank truck. Depth to groundwater is 90 ft.	June 30, 2006	Tom Kukol 805/549-3689
Villa Creek Cellars	5995 Peachy Canyon Rd. Paso Robles, San Luis Obispo	Villa Creek Cellars produces 5,000 cases of wine per year and generates minimal winery process wastewater. Winery wastewater goes through floor drains, equipped with screens, and then discharges to a septic tank. Remaining lees, bentonite, and pomace will be removed in septic tank and composted on adjacent vineyard. Process water will be land applied. Depth to groundwater is 54 ft.	July 21, 2006	Tom Kukol 805/549-3689
Nagengast Estate Vineyard	6404 Independence Ranch Place, San Miguel, San Luis Obispo	Nagengast Estate Vineyard produces less than 5,000 cases of wine per year and generates minimal winery process wastewater. Winery wastewater will be discharged to a septic tank and then storage tank. The treated process water is diluted with fresh water and used to irrigate the vineyard and landscaping. Solids are removed with primary and secondary filters. Depth to groundwater is 150 ft.	August 7, 2006	Tom Kukol 805/549-3689
Salvatore Rombi Winery	26 Trampa Canyon Road Carmel Valley, CA 93924	Salvatore Rombi Winery produces less than 5,000 cases of wine per year and generates minimal winery process wastewater. Winery wastewater will go through an "Overland Flow System," which includes a 100' perforated pipe that drains onto 4 acres of the surrounding vineyard. Pomace and lees are recycled on the vineyard.	August 10, 2006	Tom Kukol 805/549-3689

Facility Name	Facility Location	Production and Discharge Description	Date of Waiver Enrollment	Regional Board Staff Contact
		The closest surface water is more than 100 feet away.		
Starr Ranch LLC	9320 Chimney Rock Road Paso Robles, CA 93446	Starr Ranch LLC produces less than 5,000 cases of wine per year and generates minimal winery process wastewater. Winery wastewater will go through a drainage ditch to a 500-gallon storage tank and is then used to irrigate nearby trees and lawn. The solids are composted on the site. The closest surface water is more than 100 feet away. Depth to groundwater is 150 ft.	October 19, 2006	Tom Kukol 805/549- 3689

General WDRs for Waste Pile Management Facilities and Beneficial Reuse at Oil Fields

Aera Energy LLC, Cat Canyon Oilfield, Santa Barbara County [Rich Chandler 805/542-4627]

On October 11, 2006, Water Board staff enrolled Aera Energy LLC (Aera) under the General Conditional Waiver of Waste Discharge Requirements for the Management of Petroleum-Impacted Soils at Authorized Waste Pile Management Facilities on Active Oil Leases and Fee Properties in the Central Coast (general WDRs for waste pile facilities, Resolution No. R3-2005-006). Aera plans to operate two waste pile management facilities in the East Cat Canyon Oilfield area, within the north half of Section 30, Township 9 North, Range 32 West, San Bernardino Baseline and Meridian. Each facility will be slightly over 1.5 acres in size. Aera plans to temporarily store crude oil impacted soil removed from former wellhead locations before beneficial reuse of this material.

On October 11, 2006, Water Board staff also enrolled Aera under the General

Conditional Waiver of Waste Discharge Requirements for the Reuse of Non-hazardous Crude Oil Impacted Soil and Non-hazardous Spent Sandblasting Aggregate on Active Leases (general WDRs for reuse, Resolution No. R3-2005-005). Aera plans to place eligible reuse material on various roads and well pads throughout the East Cat Canyon Oilfield for dust control and erosion prevention.

Aera's applications for enrollment under both general WDRs at oil fields included compliance plans, management practices plans, and property owner notification documentation.

Prior to approving Aera's enrollment, Water Board staff sent Aera's application to the Santa Barbara County Fire Department, the Santa Barbara County Office of Planning and Development, and the California Division of Oil and Gas and Geothermal Resources (DOGGR) for a 30-day review and comment period. None of these agencies had any comments on Aera's application.

As a condition of enrollment under the general WDRs for waste pile facilities, Aera is required to submit information on the originating source of petroleum-

impacted soil, chemical characterization of petroleum impacted material, and annual monitoring reports by October 1 of each calendar year summarizing its preparedness measures to prevent discharges from the waste pile management facility during the rainy season.

Water Board staff notified both Santa Barbara County agencies and DOGGR of Aera's enrollment under the general oilfield WDRs.

Aera Energy LLC, San Ardo Oilfield,
Monterey County [Rich Chandler 805/542-
4627]

On October 11, 2006, Water Board staff enrolled Aera Energy LLC (Aera) under the general WDRs for waste pile facilities. Aera plans to operate two waste pile management facilities in the San Ardo Oilfield, within the south half of Section 2, Township 23 South, Range 10 East, Mount Diablo Baseline and Meridian. One facility will be approximately 0.1 acre in size and the other will be approximately 1.1 acres in size. Aera plans to temporarily store crude oil impacted soil removed from tank and pipeline releases while performing chemical analysis to determine if this material is suitable for beneficial reuse.

Area's's application included a compliance plan, management practices plan, and property owner notification documentation. Prior to enrollment, Water Board staff sent Aera's application package to the Monterey County Department of Environmental Health and the California Division of Oil and Gas and Geothermal Resources for a 30-day review and comment period. The agencies did not have any comments on Aera's enrollment application.

As a condition of enrollment under the general WDRs for waste pile facilities, Aera is required to submit information on the originating source of petroleum-impacted soil, chemical characterization of

petroleum impacted material, and annual monitoring reports by October 1 of each calendar year summarizing its preparedness measures to prevent discharges from the waste pile management facility during the rainy season.

General NPDES Permit for Low Threat Discharges to Surface Waters

Biltmore Hotel and Casino, Montecito,
Santa Barbara County [David LaCaro
805/549-3892]

Staff enrolled the Biltmore Hotel and Casino under the General Permit for Low Threat Discharges to Surface Water Order No. 01-119. The Discharger's Notice of Intent, dated July 25, 2006, requested enrollment for discharges resulting from seawater dewatering from a seawall barrier replacement project. General Permit Finding No. 3 authorizes other low threat discharges not covered by Construction Activities Stormwater general Permit, Industrial Activities Stormwater General Permit, Caltrans Statewide General Permit, Statewide General NPDES Permit for Discharges from Utility Vault and Underground Structures, provided that General Permit requirements are met.

Staff modified the General Permit Monitoring and Reporting Program (MRP) to fit the characteristics of the discharge. Oil/grease, color, acute toxicity, dissolved oxygen, total chlorine residual, and total fecal coliform were removed from Section A.2, *Discharge Monitoring*, because the discharge is comprised of seawater.

The District's application included analytical results from a representative sample in the area proposed for construction dewatering. Analytical results demonstrated that levels of metals, organics, and other constituents required by Section A of the General Permit were detected below Basin Plan Objectives (Table 3-8).

Los Alamos Community Services District,
Los Alamos, Santa Barbara County [David
LaCaro 805/549-3892]

Staff enrolled the Los Alamos Community Services District under the General Permit for Low Threat Discharges to Surface Water, Order No. 01-119. In its Notice of Intent dated September 13, 2006, the district requested enrollment for discharges resulting from supply well installation project. General Permit Finding No. 3 authorizes supply well installation discharges to waters of the state, provided that General Permit requirements are met.

Staff modified the General Permit Monitoring and Reporting Program to fit the characteristics of the discharge. Settleable solids, pH, total dissolved solids, temperature, Oil/Grease, color, acute toxicity, dissolved oxygen, total chlorine residual, and total fecal coliform were removed from Section A.2, *Discharge Monitoring*, because the discharge is comprised of potable water.

The District's application included analytical results from existing monitoring wells located in Los Alamos. Analytical results demonstrated that levels of metals, organics, and other constituents required by Section A of the General Permit were detected below maximum contaminant levels and Basin Plan Objectives (Table 3-8).

Soquel Creek Water District, Santa Cruz
County [Michael Higgins 805/542-4649]

On August 30, 2006, Soquel Creek Water District (Discharger) submitted a Notice of Intent and fee for enrollment under the Low-threat Discharge General Permit, WDR Order No. 01-119. The Discharger proposes to discharge development groundwater from a seawater intrusion monitoring well to a drainage tributary to Soquel Creek in Santa Cruz County. The discharge will be potable and therefore poses no threat to the Creek's beneficial

uses. The Discharger will ensure the discharge does not cause excessive erosion, which could threaten to impair the Creek's aquatic habitat beneficial use through the implementation of appropriate best management practices.

**General Waiver for Specific Types
of Discharges, Resolution No. R3-
2002-0115**

Industrial Wastewater Treatment Plant,
Vandenberg Air Force Base (AFB), Santa
Barbara County [David LaCaro 805/549-
3892]

Staff tentatively enrolled the Industrial Wastewater Treatment Plant, located at Road "N", Building 341, Vandenberg Air Force Base (AFB), Santa Barbara County, under the General Waiver Resolution No. 02-0115 on September 14, 2006. The discharge of industrial wastewater to the Industrial Wastewater Treatment Plant (IWTP) is described as follows:

1. The IWTP is located at Road "N", Building 341, Vandenberg AFB, Santa Barbara County.
2. The facility consists of an ultraviolet/ozonization (UV/Ozone) treatment unit, evaporation ponds, several storage tanks, and sumps. The facility also includes an inactive Precipitation/Reverse Osmosis System (PROS). Although piping remains intact for the PROS and the Space Launch Complex 6 (SLC-6) sump, the PROS is not currently in use and the SLC-6 sump is being used for commercial space activities.
3. The UV/Ozone treatment unit treats non-hazardous, hydrazine-contaminated waters. Tanks 501, 502, 503, and 505 store water prior to being treated by the UV/Ozone unit. When treatment is complete, the water is then discharged to tank 504 then to tank 500 for consolidated sampling. Once the sample results demonstrate that hydrazine

is not present, the water is transferred to evaporation ponds. All other wastewater that meets the acceptability criteria (e.g., non-hazardous and not contaminated with hydrazine) is sent directly to the two evaporations ponds.

4. Two evaporation ponds have a total capacity of 954,800 gallons each with a total depth of 36 inches. Each pond is lined with high-density polyethylene (HDPE). The optimal operating level of each pond is 12 inches. Each year one of the two ponds is completely dried out so that the residue can be cleaned from the bottom of the pond. The evaporation ponds are equipped with French drains that are monitored daily and evaporation pans used to estimate the rate of evaporation.
5. Three groundwater monitoring wells are located around the evaporation ponds. However, these wells are not monitored for the purpose of evaluating the IWTP treatment processes.

The IWTP waiver is contingent on satisfaction of the following conditions:

1. The IWTP shall comply with the prohibitions, recommendations, and specifications of the General Waiver Conditions (Attachment A1, Section A).
2. Use of the IWTP facility shall be conducted in accordance with the 2005 Industrial Wastewater Management Plan, or subsequent editions or such plan. Significant changes to the Industrial Wastewater Management Plan shall be subject to review and approval of the Board. A copy of the most recent Industrial Wastewater Management Plan shall remain at the facility,
3. Significant changes to the treatment processes shall be

reported in writing to the Executive Officer within 30 days.

4. Only non-hazardous wastewater will be treated by the IWTP. All hazardous wastes, accumulated salts, and sludge must be handled in accordance with any federal, state, or local regulations.
5. Discharges of industrial wastewaters from the treatment facility to groundwater and/or surface waters are prohibited.
6. Any incidence of overflow or leaking from the wastewater system shall be reported to the Executive Officer within 24 hours.
7. Central Coast Water Board staff shall be allowed to visit the IWTP to ensure continued compliance with these conditions.
8. In accordance with Section A.10, Attachment A1 of the General Waiver, the discharger shall submit an annual report. Annual reports shall be submitted to the Central Coast Water Board January 15th. Annual reports shall include, but should not be limited to, the following:

- Summary of the compliance with the above conditions,
- Summary of activities associated with the facility,
- Quantity of salts and sludge removed as well as disposal method and location,
- Quantity, quality, and types of uses for treated wastewater,
- Projection of future wastewater generation with documentation of adequate treatment and disposal capacity,
- Evaluations of evaporation pond lining regarding leakage and any deterioration from chemical in the wastewater, and
- Summary and evaluation of UV/Ozone unit activities.

RECOMMENDATION

Staff recommends the Regional Board concur with waiving waste discharge requirements for IWTP under these conditions. This conditional waiver will expire December 1, 2011.

Corrective Action Plan Approvals

Former Cinco De Mayo Cleaners, 434 Olive Street, Santa Barbara, Santa Barbara County [Thea Tryon 805/542-4776]

The former Cinco de Mayo dry cleaning business is located at 434 Olive Street in Santa Barbara, California.

Chemical impacts of common dry cleaning chlorinated solvents were first detected at the site in 1989. In April 1992, the responsible party installed the first monitoring well at the site and chlorinated solvents were detected in groundwater. In 1999, the responsible party excavated and removed approximately 445 tons of impacted soil from beneath the former dry cleaner building. The responsible party also installed a pump and treat system and removed approximately 29 pounds of chlorinated solvents from groundwater from September 2004 through July 2005.

On September 20, 2006, Central Coast Water Board staff approved an Amended Remedial Action Plan (Amended RAP) for the site to inject Hydrogen Release Compound (HRC[®]) to enhance anaerobic biodegradation of chlorinated solvents in groundwater and to cease operation of the on-site pump and treat system. HRC[®] is a non-toxic food-grade product that is injected into groundwater to speed up naturally occurring biological degradation of chlorinated solvents. As part of the approval of the Amended RAP, the responsible party is also required to:

1. Install two additional wells downgradient of the site to further delineate vinyl chloride and cis-1,2-dichloroethene detected in groundwater. The additional wells will also monitor the effectiveness of the

HRC[®] remediation program and the concentrations of groundwater migrating off of the site.

2. Implement a specific monitoring program to evaluate the effectiveness of the HRC[®] remediation program.
3. Implement an updated Monitoring and Reporting Program Order No. R3-2006-0100.

On August 11, 2006, Central Coast Water Board staff issued a public notice to all landowners and residents/occupants impacted or likely impacted by groundwater contamination within a 500-foot radius of the former Cinco de Mayo Cleaners site. The public notice described the site history, provided a summary of the cleanup activities conducted to date, and provided summary of the proposed cleanup approach. Central Coast Water Board staff did not receive specific comments on the proposed cleanup approach within the 30-day comment period.

Shell Service Station #135061, 222 Grand Avenue, Arroyo Grande, San Luis Obispo County [Corey Walsh 805/ 542-4781]

On September 8, 2006, Central Coast Water Board staff received a remedial action plan from Miller Brooks Environmental, Inc. submitted on behalf of the responsible party, Shell Oil Products US. The subject site is a gasoline service station where a leak was detected during dispenser island renovation activities in February 2002. Results of subsurface investigations indicated that soil in the area of the dispensers and product piping is impacted with petroleum hydrocarbons. Approximately 75 tons of petroleum hydrocarbon contaminated soil were excavated and disposed of. Similarly, groundwater investigations and monitoring detected petroleum hydrocarbons, methyl tertiary-butyl ether (MTBE), and tertiary-butyl alcohol (TBA) beneath the site and portions of Grand Avenue.

The remedial action plan evaluated the feasibility of several different remedial

alternatives, and provided recommendations for installation of an oxygen pulse injection system. The proposed system will include installation of eleven oxygen injection points along the south property line, and three downgradient observation wells. The injection of oxygen is intended to inhibit offsite migration of petroleum hydrocarbon polluted groundwater and to clean up groundwater onsite. The injection of oxygen is designed to enhance biodegradation of the petroleum hydrocarbons by stimulating the growth of indigenous microbes. Groundwater quality improvement will be monitored with the three proposed observation wells, four existing onsite monitoring wells, and three existing offsite monitoring wells.

Central Coast Water Board staff approved the corrective action plan and notified neighboring property owners, tenants and other interested parties in a September 18, 2006 letter.

Gallo Station No. 102, 200 Five Cities Drive, Pismo Beach, San Luis Obispo County [Corey Walsh 805/ 542-4781]

The responsible party's consultant submitted a remedial action plan, dated September 8, 2006, for cleanup of petroleum hydrocarbon contaminated soil and groundwater beneath the subject site. The remedial plan was prepared to revise a corrective action plan, which was submitted in October 2005. The previous plan included installation of a bio-barrier trench and groundwater pump and treatment. The current cleanup plan proposes a more aggressive in-situ chemical oxidation approach with the installation of an ozone sparging system. The plan proposes installation of 13 ozone sparge wells and an ozone generation system. The ozone sparge wells will be drilled to a depth of approximately 22 feet below ground surface and completed as 1-inch diameter dedicated ozone sparge points.

The remediation plan was approved in an October 24, 2006 letter. An implementation report will be submitted after completion of system installation, and cleanup progress will be monitored and reported with regularly scheduled groundwater monitoring reports.

Former Exxon Mobil Service Station #18-322, 1481 Price Street, Pismo Beach, San Luis Obispo County [Corey Walsh 805/ 542-4781]

On October 16, 2006, Central Coast Water Board staff received a remedial action plan from Holguin, Fahan & Associates, Inc., submitted on behalf of the responsible party, ExxonMobil Oil Corporation. The subject site is a gasoline service station where a leak was detected in April 2002. Results of subsurface investigations indicated that soil in the area of the former fuel dispensers and underground storage tanks is impacted with petroleum hydrocarbons. Approximately 82 tons of petroleum hydrocarbon contaminated soil were excavated and disposed of. Similarly, groundwater investigations and monitoring detected petroleum hydrocarbons, methyl tertiary-butyl ether (MTBE), and tertiary-butyl alcohol (TBA) beneath the site, which may extend beneath portions of Dolliver Street.

The Remedial Action Plan evaluated the feasibility of several different remedial alternatives, and provided recommendations for installation of an air sparging and soil vapor extraction system. The proposed cleanup system includes the use of two existing vapor extraction wells and installation of one additional vapor extraction well, and three air sparging wells.

Air sparging and soil vapor extraction are *in-situ* remedial technologies that reduce concentrations of volatile constituents in petroleum products that are adsorbed to soil and dissolved in groundwater. The air sparging component involves injection of air into the subsurface saturated zone,

and the soil vapor extraction system creates a negative pressure gradient in the unsaturated zone to move vapors toward extraction wells. The extracted vapors will be treated and discharged to the atmosphere under permit from the local air quality management district. Groundwater quality improvement will be monitored with the three onsite monitoring wells and two offsite monitoring wells.

Central Coast Water Board staff approved the remedial action plan and notified neighboring property owners, tenants and other interested parties in an November 2, 2006 letter.

Staff Closed Cases

Former Hotel Carrillo, 31 West Carrillo Street, Santa Barbara, Santa Barbara County [Thea Tryon 805/542-4776]

The former Carrillo Hotel is located on the eastern corner of Carrillo Street and Chapala Street in Santa Barbara. In 2003, the former Hotel Carrillo was demolished to construct the five-story Hotel Andalucia. Hotel Andalucia has two below-grade levels and the lower level is a parking garage. With oversight from the Santa Barbara County Fire Department, all gasoline-contaminated soil has been excavated and transported to a licensed disposal facility. Soil beneath the former Hotel Carrillo was contaminated by migrating contaminated groundwater from the nearby Seaside Shell gasoline station. No underground fuel storage tanks designed for the use or sale of gasoline have been identified in the historical record related to Hotel Carrillo.

In June 2006, two upgradient and two downgradient grab groundwater samples were collected. Based on a review of the available soil and groundwater data, Seaside Shell Gasoline Station is an upgradient source for fuel hydrocarbons in groundwater.

Staff concurred with the Santa Barbara County Fire Department's

recommendation for case closure for this site in a letter dated August 30, 2006.

Chevron Station #9-1156, 251 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 Highway 101 in Arroyo Grande. A release of gasoline was discovered during underground storage tank (UST) system upgrade work in 1994. The responsible party removed and replaced three gasoline USTs, dispensers, and associated product and vent lines. New facilities include three double-walled, fiberglass, gasoline USTs; one double-walled, fiberglass, used-oil UST and associated product and vent lines; and two dispenser islands.

The responsible party commissioned several phases of investigation and cleanup and a total of 17 soil borings, 11 groundwater monitoring wells, and 3 vapor extraction wells were installed. Laboratory analytical results indicated maximum concentrations of total petroleum hydrocarbons as gasoline (TPH-g) at 6,780 milligrams per kilogram (mg/kg), benzene at 15.1 mg/kg, and methyl tertiary-butyl ether (MTBE) at 0.14 mg/kg in soil samples.

The responsible party conducted interim corrective actions in 2000 involving groundwater pump-outs from on-site monitoring wells. In 2002, a vapor extraction system and a groundwater pump and treatment system were operated at the site. The groundwater system was shut down in 2003 and the vapor extraction system was shut down in 2004. The systems treated 1,785,325 gallons of hydrocarbon-containing groundwater and the vapor system removed a total of 5,900 pounds of hydrocarbons.

Post-remediation confirmation soil sample analytical results indicate maximum concentrations of TPH-g at 340 mg/kg,

benzene at 0.025 mg/kg, MTBE at 0.088 mg/kg, and tertiary-butyl alcohol (TBA) at 0.18 mg/kg. Maximum concentrations were detected near the former dispenser islands.

The August 2006, groundwater sample results indicate TPH-g and MTBE at maximum concentrations of 150 micrograms per liter ($\mu\text{g/L}$) and 3 $\mu\text{g/L}$, respectively. Other typical petroleum hydrocarbon constituents of concern (e.g., benzene, toluene, ethylbenzene, xylenes, and other fuel oxygenates) are below cleanup goals or were not detected in groundwater.

The depth to groundwater has ranged from approximately 27 feet to 40 feet below ground surface. Groundwater flow is generally to the southeast with a gradient of approximately 0.1 feet per foot. No municipal groundwater production wells are located within 1 mile of the site. Three public drinking water wells associated with mobile home facilities are located approximately 1 mile southwest of the site. The nearest surface water is Arroyo Grande Creek, an ephemeral stream, located 250 feet southeast of the site.

Based on site cleanup actions, groundwater monitoring results, and limited extent and depth of impacted soil left in place, there is no 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/tenants have also 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

Former Chevron Station #9-1216, 254 Santa Rosa Street, San Luis Obispo, San Luis Obispo County [Corey Walsh 805-542-4781]

Central Coast Water Board 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 cleanup goal for methyl tertiary-butyl ether (MTBE) in one monitoring well. The cleanup goal is exceeded in monitoring well MW-6 at a concentration of 8 micrograms per liter ($\mu\text{g/L}$) for samples collected on October 3, 2006. These concentrations slightly exceed the cleanup goal of 5 $\mu\text{g/L}$. Other typical petroleum hydrocarbon constituents of concern (e.g., benzene, toluene, ethylbenzene, xylenes, and other fuel oxygenates) are below cleanup goals or were not detected in groundwater. A total of 13 groundwater monitoring wells were installed at the site, as shown on Attachment 1. Nine of the wells have since been properly destroyed.

The site is currently an operating ARCO service station located on the eastern corner of Santa Rosa Street (Highway 1) and Oak Street in a mixed commercial and residential area.

The leaking UST case was opened in March 1989, and was discovered during removal of a used-oil UST. The responsible party, Chevron, removed the tank and 3 cubic yards of contaminated soil. A previous investigation conducted by Chevron included installation of four groundwater monitoring wells which were first sampled in January 1988. Laboratory analytical results for groundwater samples collected from monitoring well W-2 indicated a maximum concentration 24 $\mu\text{g/L}$ of benzene.

In March 1996, Chevron commissioned removal of three gasoline USTs and associated piping, a clarifier, and three hydraulic hoists. A total of 535 cubic yards of contaminated soil were excavated and transported off-site for disposal. In addition, 500 gallons of contaminated groundwater were pumped from the UST excavation and transported off-site for disposal. Laboratory analytical results for soil samples collected from the UST excavation indicated concentrations of total petroleum hydrocarbon as gasoline (TPH-g) up to 1,300 milligrams per kilogram (mg/kg) and benzene up to 12 mg/kg. Laboratory analytical results for soil samples collected from beneath the removed dispensers indicated concentrations of TPH-g up to 1,700 mg/kg and benzene up to 6.8 mg/kg.

In 1998, Chevron commissioned excavation of contaminated soil in the vicinity of the former dispenser islands, near one of the former hoists, and the former clarifier. A total of 1,400 cubic yards of soil were transported off-site for disposal during this phase of the cleanup. Soil concentrations greater than typical cleanup goals for TPH-g and benzene were detected in excavation sidewalls and bottom samples at approximately five feet and eight feet, respectively, below ground surface near Santa Rosa Street. Contaminant concentrations ranged from 120 mg/kg to 1,560 mg/kg for TPH-g, and from 0.11 mg/kg to 0.93 mg/kg for benzene. It was not feasible to extend the excavation any further toward the street. The typical soil cleanup goals for total petroleum hydrocarbons and benzene are 100 mg/kg and 0.1 mg/kg, respectively.

In 2000, the site was redeveloped into an ARCO service station, which began operation in January 2001. During excavation of the new USTs, an additional 144 cubic yards of soil and 900 gallons of water were removed and transported off-site for disposal.

The depth to groundwater at the site has ranged from less than one foot to

approximately 11 feet (and generally occurs at eight feet) below ground surface. The groundwater flow direction is generally to the northwest; however, groundwater occasionally flows toward the southwest. The gradient varies from 0.007 to 0.12 feet per foot. The nearest surface body of water is Stenner Creek approximately 300 feet southwest of the site. The nearest municipal drinking water well (San Luis Obispo City, Mitchell Park well) is approximately 4,400 feet southeast of the site. The residual soil and groundwater contamination remaining is unlikely to affect water quality in Stenner Creek or in the Mitchell Park well considering the groundwater flow direction, distance, well construction, and low remaining contaminant concentrations.

The site lies within the San Luis Obispo Creek Hydrologic Subarea (3-10.24) of the Estero Bay 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 gasoline constituents are as follows: 1,000 µg/L total petroleum hydrocarbons (TPH), 1 µg/L benzene, and 5 µg/L MTBE. The MTBE cleanup goal has been established based on taste and odor thresholds, not health risks.

The groundwater plume extent has been adequately characterized and is contracting or declining in size and concentration, and historical monitoring data indicate the MTBE 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 San Luis Obispo City Fire Department, as the lead agency for

- soil investigation and cleanup activities, agrees that no further soil investigation or cleanup is necessary,
- (2) The remaining groundwater pollution above the cleanup goal is limited in extent, decreasing in concentration, and is only slightly above the cleanup goal for MTBE,
 - (3) The contaminated soil mass has been removed from the site to the extent practical,
 - (4) The remaining MTBE is unlikely to reach surface water or drinking water supply wells, and
 - (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, Central Coast Water Board staff has compared remaining soil and groundwater contaminant concentrations with environmental risk screening levels with respect to direct exposure, indoor air impacts, gross contamination, and soil leaching potential. Direct contact is unlikely due to the depth of the constituents of concern, and because the site is paved and will continue to operate as a service station. Volatilization of subsurface contamination into indoor air is unlikely due to the site pavement, location of contaminated soil, and because of soil contamination are below environmental screening levels for commercial land use.

It is important to point out that soil data used in the environmental risk screening evaluation are from 1998, and that groundwater data are from the fourth quarter 2006. The relatively high concentrations of TPH-g and benzene in soil samples collected in 1998 from five-

foot-deep excavation sidewalls near Santa Rosa Street are expected to have decreased in concentration over the last eight years due to natural attenuation processes. This hypothesis is supported by the observed decrease in groundwater concentrations during the same period of time. Because groundwater generally occurs at eight feet below ground surface, current water quality monitoring data are a reasonable proxy and are reflective of improving soil quality conditions.

Therefore, Central Coast Water Board staff concludes that based on the current and anticipated future land use, location and depth of residual soil and groundwater contamination, and age of soil sample data that no significant threat to human health or the environment exists.

However, because of the residual soil contamination remaining in the subsurface near the southwestern property line and Santa Rosa Street, Central Coast Water Board staff will require post closure site management requirements including proper handling of residual soil and groundwater contamination which may be brought to the surface during future development activities such as grading, excavation, or construction dewatering. Central Coast Water Board staff will outline these post closure site management requirements in the letter transmitting the case closure letter and include them in the case closure summary which will be posted in GeoTracker. The levels of residual contamination and associated risk of being brought to the surface are expected to reduce with time. The property owner, public agencies, and adjacent property owners have been notified of the proposed case closure, and of the site management requirements.

Unless the Central Coast Water Board objects, or significant objections are raised, and pending monitoring well destruction, the Executive Officer will issue a case closure letter pursuant to

California Underground Storage Tank
Regulations.

Attachments

1. Groundwater Elevation contour.
Map for Third Quarter 2006

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