

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

STAFF REPORT FOR REGULAR MEETING OF JULY 9, 2004

Prepared on June 17, 2004

ITEM: 11

SUBJECT: LOW THREAT CASES

DISCUSSION

Low Threat and General Discharge Cases:

General NPDES Permit:

Ritz Carlton Dewatering Projects, City of Santa Barbara, Santa Barbara County [John Mijares 805/549-3696]

William Levy Investments, LLC submitted four complete Notice of Intents, to comply with the General Permit for Discharge of Highly Treated Groundwater to Surface Waters, NPDES Permit No. CAG993002, Order No. 01-134. William Levy Investments proposes to discharge treated construction water to be extracted (four separate locations) during construction of the Ritz-Carlton Club project. Groundwater dewatering would be initiated four to five weeks before the excavation process and would continue for eight to ten months until subsurface building structures are completed. Groundwater treatment effluent from each site will be discharged into a common storm drain outfall that discharges to Mission Creek located approximately 150 southeast of the storm drain outfall. The discharge location is about 1000 feet from Mission Creeks confluence with the Pacific Ocean. The City of Santa Barbara Public Works Department has granted its permission for the use of the storm drain outfall.

Construction dewatering is needed for the installation of subsurface structures. The historical depth to groundwater obtained from monitoring wells located at 110 State Street ranges 2-7 feet below ground surface. 110 State Street is an active Leaking Underground Fuel Tank site with groundwater contamination. The Santa Barbara County Fire Department, Fire Prevention Division oversees the site investigation and cleanup. The County Fire Department has been informed of this

project. Extracted groundwater from this project could potentially be impacted with methyl tertiary-butyl ether (MTBE) and petroleum hydrocarbon constituents. Historical groundwater monitoring data at the 110 State Street site show MTBE concentrations of up to 17.5 micrograms per liter.

The extracted groundwater will be treated prior to its discharge to Mission Creek. Each treatment system consists of a holding/settling tank with a 6,900-gallon holding capacity designed for a minimum 30-minute retention time to settle out total suspended solids. This is followed by a dual-pod sand filter system and a multi-chamber bag filter system to further remove total suspended solids and turbidity. The final phase of the treatment process consists of double-redundant granular activated carbon filters (three 5000-pound vessels) in series to remove petroleum hydrocarbon constituents and oxygenates. Each treatment system has a maximum capacity of 138 gallons per minute [200,000 gallons per day (gpd)]. The four treatment systems could discharge up to a maximum of 800,000 gpd of highly treated water. Treatment system redundancy, routine inspection, maintenance and confirmation sampling ensure the discharge will not pose a threat to water quality. Extracted ground water will be treated to drinking water standards prior to discharge and no adverse effects are expected.

Public notification of the proposed discharge was submitted to the property owners within a 300-foot radius of the new discharge point on April 15, 2004. No comments from the public have been received.

On May 7, 2004, Regional Board staff issued an authorization letter to William Levy Investments for the proposed discharge of treated groundwater

during construction of the Ritz-Carlton Club facility. A site-specific Monitoring and Reporting Program was also issued by the Executive Officer to ensure that the operation of the treatment system is monitored and the effluent quality complies with the discharge requirements contained in the General NPDES permit.

Monterey Regional Water Pollution Control Agency, Monterey County [Scott Phillips 805/549-3550]

Staff enrolled Monterey Regional Wastewater Facility under the General NPDES Permit for Discharges with Low Threat to Water Quality (Low Threat General Permit) on June 8, 2004, for discharge of water-softener regeneration brine. Approximately 500 pounds per day of salt will be discharged to the ocean outfall. The brine will be collected in a newly constructed holding basin that will hold up to 12 days worth of brine before discharge. Results from a thorough analysis were submitted on May 17, 2004, showing that the discharge fully meets the limitations of the low threat permit for discharge to the Pacific Ocean.

Enrollment under the Low Threat General Permit requires Monterey Regional Water Pollution Control Agency to comply with Monitoring and Reporting Program No. 01-119 (MRP). The MRP has been modified specifically for this discharge, and includes semi-annual monitoring of effluent pH, temperature, total dissolved solids, zinc, copper and other trace elements identified in the pre-screening analysis. Full screening analysis of all regulated Ocean Plan priority pollutants and acute toxicity testing will be repeated every five years, to confirm the low-threat nature of this discharge.

Discharges to Land with Low Threat to Water Quality, Order No. 2003-0003-DWQ

Sand Point Rd. Dewatering Project, Gordon Krischer, Santa Barbara County, [Todd Stanley 805/542-4769]

Staff enrolled the Sand Point Road Dewatering Project, Santa Barbara County, under Water Quality Order No. 2003-0003-DWQ, *Statewide General Waste Discharge Requirements for Discharges to Land with a Low Threat to Water Quality* (Low Threat General Permit) on June 17, 2004. The project proponent will discharge

approximately 12,000 gallons per day of groundwater dewatered from an excavated trench to a contained area owned by Sand Point Road property owners. The short-term discharge is planned to occur during working hours over a three to five-day period, commencing on June 21, 2004. The discharge area is a sand-bottomed, enclosed revetment, allowing the dewatering discharge to percolate to groundwater. A settling tank will be used to minimize the discharge of sediment. The dewatering discharge is part of a project to install a new sewer main to connect properties along Sand Point Road to the Carpinteria Sanitary District's wastewater collection system. The new sewer main will eliminate onsite septic/leachfield systems serving the developed properties.

Enrollment under the Low Threat General Permit requires Mr. Krischer and his authorized project representatives to comply with the Monitoring and Reporting Program for Order No. 2003-0003-DWQ (MRP), and the Discharge Monitoring Plan required by the Order and submitted with the Notice of Intent. The MRP does not require effluent sampling and analysis for small dewatering projects, and staff has proposed no revisions to require otherwise. Staff has requested that a single monitoring report be submitted at the completion of the project with the Notice of Termination. Monitoring will include observations of the excavation for spills and odors, and observations of the discharge area to assure good percolation and that no discharges to surface waters occur.

General Waste Discharge Requirements:

General Waste Discharge Requirements for Wineries:

Babcock Vineyards, Lompoc, Santa Barbara County [Matt Thompson 805/549-3159]

Staff enrolled Babcock Vineyards under the General Waste Discharge Requirements for Discharges of Winery Waste (General WDRs) on April 29, 2004. Babcock Vineyards is located at 5175 East Highway 246, near Lompoc, Santa Barbara County.

Approximately 300 tons of grapes are processed and 20,000 cases of wine are produced annually. Hot water, ozone, and caustic soda are used for barrel and tank cleaning. Floors are cleaned with a

pressure washer. Peak winery process wastewater flows are approximately 2,500 gallons per day during the crush season. Large solids are separated from process wastewater by floor drain screens. Process wastewater is settled in a series of three (3) 1,500-gallon septic tanks. Process wastewater is disposed in two 200-foot long leachfields. Leachfield sizing is based on septic tank volume rather than soil percolation rates. Consequently, the leachfields may be undersized for peak wastewater flows during the crush season. Wastewater flow rates and leachfields will be monitored closely during the crush season. Pomace, seeds, and stems are spread in surrounding vineyards.

Enrollment under the General WDRs requires Babcock Vineyards to follow Monitoring and Reporting Program (MRP) No. R3-2003-0084. The MRP has been modified specifically for Babcock Vineyards. Among several other monitoring requirements, septic tanks solids content will be inspected semi-annually, before and after harvest. Septic tanks will be pumped as appropriate to remove accumulated solids. Leachfields will be monitored for over-saturation and standing water monthly during the non-crush season, and weekly during the crush season. Regional Board staff will begin regular compliance inspections of Babcock Vineyards in Fall 2004.

Waivers of Waste Discharge Requirements:

City of Morgan Hill, Well Flushing Discharge, Santa Clara County [David Athey, 805/542-4644]

Regional Board staff received an application from the City of Morgan Hill (Discharger) to discharge groundwater from Tennant well flushing activities. Groundwater will be discharged to a nearby detention basin, where it will percolate into the underlying unconfined aquifer. The anticipated discharge from Tennant well pumping will occur at flow rates of around 450 gallons per minute for one or two days. This well has had past detections of perchlorate. However, the most recent pump tests results collected (July 2003) were below 4 ppb Action Level. In addition, eight down well depth discrete samples were collected after test cessation. Those eight results did not indicate perchlorate above the then current 4 ppb action level. Based on previous test results and current

proposal, staff waived Waste Discharge Requirements as allowed by Resolution No. R3-2002-0115, providing the City complies with waiver letter conditions.

ATTACHMENT

1. June 10, 2004 letter to Richard Chandler, Komex.

NTMP #1-01 NTMP-032 SCR, Santa Cruz County [Bill Arkfeld 805/542-4647]

The Santa Cruz Land Trust and forester Bill Vaughan propose to harvest 47 acres of NTMP #1-01NTMP-032 SCR (NTMP is Non Industrial Timber Management Plan). According to the information form submitted and subsequent inspection by Regional Board staff, there are no watercourses in the area proposed for harvest and the proposed operation does not pose a threat to water quality. This Waiver applies to this operation only. Subsequent proposals under this NTMP will require Regional Board action. The project proponent is required to comply with all applicable Forest Practice Rules and the conditions of NTMP #1-01NTMP-032 SCR.

NTMP #1-96NTMP-018 SCR, Santa Cruz County [Bill Arkfeld 805/542-4627]

Landowner Mark Foxx and Forester Bill Vaughan propose to harvest three acres of NTMP #1-96NTMP-018 SCR. According to the information form submitted and subsequent inspection by Regional Board staff, there are no watercourses in the area proposed for harvest and the proposed operation does not pose a threat to water quality. This Waiver applies to this operation only. Subsequent proposals under this NTMP will require Regional Board action. The project proponent is required to comply with all applicable Forest Practice Rules and the conditions of NTMP #1-96NTMP-018 SCR.

Staff Closed Cases:

Tosco Service Station No. 4902 – 2255 41st Avenue, Capitola, Santa Cruz County; (RWQCB No. 2576) [Tom Sayles 805-542-4640]

Tosco Service Station No. 4902 is an active ConocoPhillips (76) gasoline service station with

two 12,000 gallon double walled gasoline underground storage tanks (UST) and six product dispensers. An unauthorized release of petroleum hydrocarbons was discovered in June 1993 during station upgrades. A total of 100 cubic yards of hydrocarbon-impacted soil was removed during station upgrades. Three groundwater monitoring wells were installed in November 1999 to evaluate soil and groundwater contamination. Initial groundwater monitoring results indicated methyl tertiary-butyl ether (MTBE) concentrations up to 147,000 micrograms per liter ($\mu\text{g/L}$); total petroleum hydrocarbons as gasoline (TPH-G) and benzene were below water quality objectives (WQO's). A monitoring and reporting program was implemented and batch groundwater extraction was conducted using the impacted monitoring well MW-1. Approximately 95,700 gallons of groundwater was extracted from March 2001 through May 2002. In addition, a six-week dual phase extraction event was performed from October through December 2002. These remedial actions appear to have been effective in decreasing the MTBE concentration in the groundwater monitoring wells to low levels.

The site lies within the Santa Cruz (Aptos-Soquel Hydrologic Unit, which the "Water Quality Control Plan, Central Coast Region" (Basin Plan) designates groundwater as having beneficial uses for domestic and municipal supply, agricultural supply, and industrial supply. Therefore, WQO's for common gasoline constituents are as follows: 1,000 $\mu\text{g/L}$ – total petroleum hydrocarbon (TPH), 1 $\mu\text{g/L}$ – benzene, 150 $\mu\text{g/L}$ – toluene, 300 $\mu\text{g/L}$ – ethylbenzene, 1,750 $\mu\text{g/L}$ – xylenes, and 5 $\mu\text{g/L}$ – MTBE. WQOs for MTBE and TPH have been established based on taste and odor thresholds.

Depth to groundwater at the site is approximately 60 to 65 feet below ground surface (bgs). Groundwater flow is generally to the south to southeast with a gradient of 0.01 foot/foot. The nearest water well is located approximately 1,000 feet southeast of the site.

Recent quarterly groundwater monitoring results indicate all gasoline constituents are below WQO's for four consecutive quarters. Based on these results, there is no threat to groundwater quality and no further groundwater investigation or action is necessary. The Santa Cruz County Environmental Health Services Agency concurs with this

determination. The property owner/site operator has been notified of case closure and the responsible party has been directed to destroy all monitoring wells. Staff is proceeding to close this case and will issue a final case closure letter upon receipt of a well destruction report documenting the proper destruction of all monitoring wells.

Former Bulk Plant, 123 Center Street, Santa Cruz, Santa Cruz County; (RWQCB No. 301) [Tom Sayles 805-542-4640]

The subject site historically contained a bulk oil and lubricant distribution facility. A November 6, 2000 soil and groundwater investigation indicated soil contamination and "grab" groundwater results above water quality objectives (WQO's). Following a March 20, 2001 site investigation, four groundwater monitoring wells were installed in November 2003 and the initial groundwater monitoring results indicated that only benzene was detected above WQO's at 1.3 micrograms per liter ($\mu\text{g/L}$).

The site was acquired by the City of Santa Cruz and the existing structures were demolished by November 2003. During the demolition activities, approximately 82 cubic yards of hydrocarbon-impacted soil were removed. Monitoring well MW-1 was properly destroyed during final grading activities. Following the soil removal, a monitoring and reporting program was implemented to evaluate the results.

The site lies within the Santa Cruz (Aptos-Soquel Hydrologic Unit, which the "Water Quality Control Plan, Central Coast Region" (Basin Plan) designates groundwater as having beneficial uses for domestic and municipal supply, agricultural supply, and industrial supply. Therefore, WQO's for common gasoline constituents are as follows: 1,000 g/L – total petroleum hydrocarbon (TPH), 1 g/L – benzene, 150 g/L – toluene, 300 g/L – ethylbenzene, 1,750 g/L – xylenes, and 5 g/L – MTBE. WQOs for MTBE and TPH have been established based on taste and odor thresholds.

Depth to underlying groundwater is approximately 5 to 15 feet below ground surface (bgs). Groundwater flow is generally to the east at a gradient of 0.007. The nearest water supply well is located approximately 2.5 miles from the site.

Recent quarterly groundwater monitoring results indicate all gasoline constituents are below WQO's. Based on these results, there is no threat to groundwater quality and no further groundwater investigation or action is necessary. The Santa Cruz County Environmental Health Services Agency concurs with this determination. The property owner/site operator has been notified of case closure and the responsible party has been directed to destroy all monitoring wells. Staff is proceeding to close this case and 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:

Shikuma Farm, 581 Airport Boulevard, Watsonville, Santa Cruz County, [Burton Chadwick, (805) 542-4786]

Two underground storage tanks (USTs) were removed from this residential property on November 4, 1994, under the oversight of the Watsonville Fire Department. Further investigation work, consisting of three soil borings, was directed by the Fire Department. Soil boring results indicated soil impacts beneath the removed tanks to approximately 20 feet below ground surface where shallow groundwater was encountered.

In November 1995, a subsequent phase of investigation, consisting of six soil borings (with three converted to groundwater monitoring wells), was conducted near, and downgradient of, the former tank location (Figure 2 – Attachment 2). Results of this investigation indicated a localized area of soil impact surrounding the former tank area. A groundwater sample collected on November 14, 1995, from monitoring well MW1 located within the former tank excavation, detected 34 milligrams per liter (mg/L) total petroleum hydrocarbons as gasoline (TPH), and 540 micrograms per liter ($\mu\text{g/L}$) benzene.

Groundwater monitoring has been ongoing on an annual basis since 1995. Maximum site contaminant concentrations in monitoring well MW1 were 53 mg/L TPH and 2,100 $\mu\text{g/L}$ benzene on August 15, 1996. With the exception of 1 $\mu\text{g/L}$ benzene detected in monitoring well MW2 on January 26, 2000, petroleum hydrocarbons,

including benzene, toluene, ethylbenzene, xylenes, and the fuel oxygenate methyl-*tertiary* butyl ether (MTBE) have not been detected in the downgradient monitoring wells. Most recent sampling data collected from MW1 on January 28, 2004, indicate that concentrations have reduced to 9 mg/L TPH and 89 $\mu\text{g/L}$ benzene; MTBE has not been detected. The Regional Board's water quality objectives are 1 mg/L for TPH and 1 $\mu\text{g/L}$ for benzene.

The site's subsurface conditions have been adequately characterized. The one monitoring well (MW1) containing residual hydrocarbon contamination above water quality objectives is located within the former UST excavation. Two non-impacted monitoring wells are located 35- and 60-foot downgradient of MW1. As outlined above, with the exception of 1 $\mu\text{g/L}$ benzene in MW2 on January 26, 2000, hydrocarbon constituents have not been detected in these downgradient wells.

Shallow groundwater beneath the site flows toward the southwest, and generally occurs at 17 to 19 feet below grade in a clay-rich soil zone with low permeability. The nearest supply well is approximately 2,200 feet southeast of the site. Santa Cruz County Environmental Health Services staff agrees that no further action is required with respect to this leaking underground storage tank case. The property owner, the responsible party, and responsible party's consultant have been notified of Regional Board staff's recommendation for case closure.

Regional Board staff recommends closure for this site based on the following: (1) the tanks and source of contamination were removed from the site in 1994, (2) there has been no occurrence of MTBE, (3) the plume is defined, confined to the area near one monitoring well located in the former tank excavation, and is declining in concentration, (4) the TPH and benzene concentrations remaining in well MW1 are expected to continue to decline, based on historical monitoring data, and (5) by the time the affected water is potentially used, the water quality objectives will be attained through natural processes. Case closure is also 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.

Concentrations of contaminants (9 mg/L TPH and 89 µg/L benzene) remaining localized in groundwater are higher than the Regional Board's water quality objectives 1 mg/L and 1 µg/L, respectively; however, closure of this site is consistent with closure of similar low risk petroleum hydrocarbon cases by the Regional Board in the past. If the Regional Board concurs with staff's recommendation for case closure, staff will direct the responsible party and responsible party's consultant to properly destroy the groundwater monitoring wells prior to issuing a formal case closure letter.

ATTACHMENT

2. Figure 2 Site Map with Groundwater Elevations and Analytical Results, 1/28/04

Former Shell El Dorado Service Station, 1835 State Street, Santa Barbara, Santa Barbara County, [John Mijares, (805) 549-3696]

Equilon Enterprises, LLC, dba Shell Oil Products US (Shell), removed five underground storage tanks from the former Shell El Dorado Service Station in 1991. Soil samples collected below the tanks indicated petroleum hydrocarbon contamination. Shell remediated the soil with soil vapor extraction from 1994 through 1996, removing approximately 17,000 pounds of petroleum hydrocarbons. Confirmation soil borings verified that petroleum hydrocarbon constituents were below soil action levels.

Soil encountered beneath the site consists of interbedded clays, silts, sands, silty sands, and clayey sands at various depths from ground surface to 60 feet below ground surface (bgs) and bedrock consisting of sandstone and siltstone from 60–100 feet bgs, the maximum depth explored. Monitoring well MW-2 (a total depth of 100 feet and screened between 72-100 feet) was successfully installed in 1997. MW-2 is presumed to be downgradient of the former soil source area based on surface topography and location of the Pacific Ocean.

Results of historic groundwater monitoring are summarized below.

1. Depth to groundwater ranges from 84.4 to 88.9 feet bgs.
2. Total petroleum hydrocarbons as gasoline (TPHg) has not been detected since June 1998.
3. Benzene (B,) toluene (T), and xylenes (X) have not been detected from January 1997 until July of 2001, were detected well below the water quality objectives in October 2001, and were not detected again from January 2002 to January 2004 (most recent monitoring data available). Ethylbenzene (E) has not been detected at all since January 1997;
4. Methyl tertiary-butyl ether (MtBE) was not detected above laboratory reporting limits from January 1997 to October 2002, was detected at 1 microgram/l (µg/l) in January 2003, and was again not detected from April 2003 to the most recent monitoring data of January 2004.
5. Tertiary butyl alcohol (TBA) was not been detected from April 2001 to July 2003, was detected in October 2003 at an apparently anomalous spike of 75 µg/l and was again not detected above the laboratory reporting limit or the Regional Board's water quality objectives to the most recent monitoring data of January 2004. The organic 1,2-dichloroethane (EDC) has been detected since January 1999 at concentrations ranging from 3.4 to 7.5 µg/l. The Regional Board's water quality objective for EDC is 0.5 µg/ which is also the drinking water maximum contaminant level.
6. Groundwater data collected in January 2004, indicated that TPHg, BTEX, MtBE and TBA were not detected above laboratory reporting limits or this Regional Board's water quality objectives; however, EDC was detected at 4.1 µg/l.

The Santa Barbara County Fire Department, Fire Prevention Division, recommends closure of this case and requests Regional Board concurrence based on the following: (1) the tanks and source of contamination were removed from the site in 1991, (2) the soil has been remediated using soil vapor extraction to below soil action levels, (3) TPHg, BTEX, MTBE, and TBA concentrations are below laboratory reporting limits and water quality objectives (4) EDC concentrations have been

slightly above the water quality objectives but consistently below 5 µg/l since January 2002, and (5) by the time the affected water is potentially used, the water quality objectives will be attained through natural processes.

Although the 4.1 µg/l concentration of EDC is higher than its 0.5 µg/l water quality objective, site closure is consistent with past closure of similar low risk petroleum hydrocarbon cases by the Regional Board. If the Regional Board concurs with staff's recommendation, the Executive Officer will issue a concurrence letter to Santa Barbara County Fire Department to proceed with case closure activities.