STATE OF CALIFORNIA
CALIFORNIA WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION

STAFF REPORT FOR REGULAR MEETING OF SEPTEMBER 9, 2005

Prepared on July 29, 2005

ITEM: 8

SUBJECT: LOW THREAT AND GENERAL DISCHARGE CASES

DISCUSSION

Low Threat Cases

General NPDES Order No. 00-119

Southern California Water Company, Cal Cities Lake Marie Water Supply System, Santa Barbara County [Sorrel Marks 805/549-3695]

Upon receipt of an appropriately filed Notice of Intent (application), staff reviewed the submittal to ensure compliance with permit condtions and enrolled Southern California Water Company's Cal Cities Lake Marie Water Supply System under the General NPDES Permit for Discharges with Low Threat to Water Quality (Low Threat General Permit) on June 3, 2005. The Lake Marie Water Supply System intermittently discharges to stormdrains throughout its service area, ultimately draining to unnamed drainageway located near Highway 101, in the vicinity of the old Santa Maria Oil Field. Intermittent discharges include raw ground water discharged prior to sampling, well development and treatment discharges, distribution system flushing and tank dewatering. Such discharges are typical of water systems which depend upon ground water as the source of supply. Enrollment under the Low Threat General Permit requires Southern California Water Company to comply with Monitoring and Reporting Program No. 01-119. The Monitoring and Reporting Program includes annual monitoring of discharges and receiving waters. In addition, Southern California Water Company has five other water supply systems within the Central Coast Region enrolled under the Low Threat General Permit. Public notification of the enrollment was provided through publication in the Santa Maria Times.

Southern California Water Company, Cal Cities Sisquoc Water Supply System, Santa Barbara County [Sorrel Marks 805/549-3695]

Upon receipt of an appropriately filed Notice of Intent, staff enrolled Southern California Water Company's Cal Cities Sisquoc Water Supply System under the Low Threat General Permit on June 3, 2005. The Sisquoc Water Supply System intermittently discharge to stormdrains throughout its service areas, ultimately draining to the Sisquoc River. Intermittent discharges include raw ground water discharged prior to sampling, well development and treatment discharges, distribution system flushing and tank dewatering. Such discharges are typical of water systems which depend upon ground water as the source of supply. Enrollment under the Low Threat General Permit requires Southern California Water Company to comply with Monitoring and Reporting Program No. 01-119. The Monitoring and Reporting Program includes annual monitoring of discharges and receiving waters. In addition, Southern California Water Company has five other water supply systems within the Central Coast Region enrolled under the Low Threat General Permit. Public notification of the enrollment was provided through publication in the Santa Maria Times.

General NPDES Order No. 00-134

Harvest Moon Market, 1003 Amesti Road, Watsonville, Santa Cruz County [Tom Sayles (805) 542-4640]

Harvest Moon Market submitted a Notice of Intent to comply with the Water Board's Order No. 01-134, NPDES No. CAG993002, General Permit for Discharges of Highly Treated Groundwater to

Surface Waters (General Permit). The discharge is the result of groundwater extraction from six-dual phase extraction wells that are being used to remediate the site. Groundwater will be extracted from the wells and stored in an onsite remediation system before being treated using three 2,000-pound granular activated carbon canisters arranged in a series and then discharged to the storm drain.

Discharge to surface water will be completed via an underground pipe connecting the treatment system to the storm drain located on Varni Road. As part of the enrollment process, Water Board staff required Harvest Moon Market to comply with specific permit conditions, which included notification of nearby property owners and obtaining permission from the storm water drain owner.

In a June 2, 2005 letter, Water Board staff notified property owners within a 300-foot radius of the proposed discharge location, allowing for public comment. Water Board staff has not received public comment regarding the proposed discharge.

On July 13, 2005, the Executive Officer enrolled Harvest Moon Market under the General Permit and authorized the discharge to begin. The discharger must comply with General Permit standards, prohibitions, and requirements to protect water quality. Harvest Moon Market is also required to comply with Monitoring and Reporting Program No. R3-2005-0117. Treatment system redundancy, routine inspections, maintenance and confirmation sampling will ensure the discharge will not pose a threat to water quality. Extracted groundwater will be treated to drinking water standards prior to discharge and no adverse effects are expected.

General Order No. R3-2005-0001 for Fertilizer and Pesticide Facilities

Wilbur-Ellis Soilserv, King City [Sandy Cheek 805/542-4633]

Regional Board staff enrolled Wilbur-Ellis Soilserv, King City in the General Waste Discharge Requirements for Fertilizer and Pesticide Handling Facilities, Order No. R3-2005-0001 on August 1, 2005. Wilbur-Ellis Soilserv, King City was previously regulated by Order No. 90-092. This is an agricultural chemical facility that stores fertilizer and pesticide for application to growers' fields. Enrollment requires the facility to comply with Monitoring and Reporting Program No. R3-2005-0001. The MRP has been modified to include specific groundwater monitoring requirements.

General Waste Discharge Requirements for Discharges to Land with Low Threat to Water Quality, State Board Order No. 2003-0003-DWQ

Goleta Slough Tidal Restoration Project, Santa Barbara Airport, Santa Barbara County, [Todd Stanley 805/542-4769]

Staff enrolled the Goleta Slough Tidal Restoration 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 August 2, 2005. The Santa Barbara Airport will discharge approximately 200 to 500 gallons per day of groundwater dewatered from an excavated area to adjacent areas owned by the airport. If determined necessary, the short-term discharge is planned to occur during working hours over a one to two-week period commencing in early August 2005. The discharge areas are vegetated, enclosed basins, with no connection to surface waters, allowing the dewatering discharge to percolate to groundwater. Low flowrate and minimal disturbance of the pumping area are expected to minimize sediment transport. The dewatering discharge is part of a project to install a culvert related to the project. The project is intended to provide field data to assist in determining the feasibility of a long-term tidal restoration program at Goleta Slough.

Enrollment under the Low Threat General Permit requires the Santa Barbara Airport and its 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 such sampling. Staff has requested that a single monitoring report be submitted with the Notice of Termination after the project's completion. Monitoring will include

photo documentation, observations of the excavation for spills and odors, and observations of the discharge areas to assure good percolation and protection against erosion and adverse impacts to vegetation.

General Waste Discharge Requirements for Wineries

Wild Horse Winery, Templeton, San Luis Obispo County [Tom Kukol 805/549-3689]

In 1998, the Regional Water Quality Control Board, Central Coast Region adopted Order No. 98-04 to regulate the discharge of winery process wastewater generated from the Wild Horse Winery in Templeton. Staff proposes to rescind Order No. 98-04 (see Item 19 in this agenda) and enroll the Discharger in Order No. R3-2002-0084, "General Waste Discharge Requirements for Discharges of Winery Waste" (General Requirements). Regional Board staff enrolled Wild Horse Winery under the General Waste Discharge Requirements for Discharges of Winery Waste (General WDRs) on June 10, 2005.

Wild Horse Winery's waste discharge is described as follows:

- Wild Horse Winery currently owns a winery and treatment facilities at 1437 Wild Horse Winery Court, Templeton, San Luis Obispo County.
- The winery crushes 3,000 tons of grapes per year.
- The winery produces approximately 150,000 cases per year.
- The winery generates average non-crush wastewater flow of approximately 10,000 gallons per day, an average crush flow of 17,000 gallons per day, and a peak crush flow of 23,000 gallons per day.
- Pretreatment consists of solids separation from the winery wastewater through drain screens and rotary screen. Treatment occurs in two aerated facultative ponds. Screened solids are collected, composted and applied to the vineyard soil according to best management practices.
- Treated winery wastewater is recycled and used for vineyard irrigation.

Enrollment under the General WDRs requires Wild Horse Winery to comply with Monitoring and Reporting Program (MRP) No. R3-2003-0084. Water supply quality, wine production, chemical usage, effluent flow and quality, and disposal area monitoring are required. Groundwater and disposal treatment and disposal method presents little or no threat to underlying groundwater quality. Regional Board staff will begin regular inspections of Wild Horse Winery this fall to ensure continued compliance with the General WDRs.

Shoestring Vineyards, Santa Ynez, Santa Barbara County [Matt Thompson 805/549-3159]

Regional Board staff enrolled Shoestring Vineyards under the General Waste Discharge Requirements for Discharges of Winery Waste (General WDRs) on June 21, 2005. Shoestring Vineyards is located at 800 E. Highway 246, Solvang, in Santa Barbara County.

Shoestring Vineyards plans to produce up to 40,000 cases of wine per year. Peak winery process wastewater flows are approximately 2,400 gallons per day. Large solids are separated from wastewater by screens in trench drains. Wastewater is settled in a 3,000-gallon septic tank accompanied by a diverter value and two distribution boxes. An effluent filter may be included in the septic tank. Septic tanks will be pumped as appropriate to remove accumulated solids. Wastewater is disposed in large dual 500-lineal foot leachfields. Pomace is composted and disposed of on-site.

Enrollment under the General WDRs requires Shoestring Vineyards to follow Monitoring and Reporting Program (MRP) No. R3-2003-0084. The MRP has been modified specifically for Shoestring Vineyards. Three water supply flow meters will be used to estimate winery process wastewater flow rates. 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 Shoestring Vineyards this fall.

Scheid Vineyards, Monterey County [Martin Fletcher 805/549-3694]

Central Coast Water Board staff enrolled Scheid Vineyards in Order No. R3-2002-0084, "General Waste Discharge Requirements for Discharges of Winery Waste" (General Requirements), on June 15, 2005.

Scheid Vineyards Corporation owns a vineyard and plans to add a winery and treatment facilities at 1972 Hobson Road, Greenfield, Monterey County.

The vineyard currently produces up to 5,000 tons of grapes for offsite wine production. Expansion is expected in two phases. Phase one, to occur prior to crush 2005, is expected to include processing and treatment crush capacity for 12,500 tons of grapes with onsite processing for 7,500 tons of grapes for finished wine production. Phase two is expected within 5-10 years and will increase processing and treatment capacity to 30,000 tons of grapes.

After phase one build out, the winery expects a non-crush wastewater flow of approximately 4,600 gallons per day, an average crush flow of 36,000 gallons per day and a peak crush flow of 105,600 gallons per day. At final build out (phase two) the winery expects to produce approximately 100,000 cases of wine with an average non-crush wastewater flow of approximately 11,000 gallons per day, an average crush flow of 86,600 gallons per day, and a peak crush flow of 211,2000 gallons per day.

Pretreatment solids separation from winery wastewater will consist of screens. Separated solids will be collected, composted and applied to the vineyard soil according to best management practices. Treatment will consist of aerated ponds. Treated winery wastewater will be recycled and used for vineyard irrigation of up to 134 acres.

The General Requirements were adopted by the Board on November 1, 2002. The intent of the General Requirements is to facilitate the enrollment and regulation of the large number of wineries located in the Central Coast Region. The proposed discharge will comply with Regional Board standards, prohibitions, and requirements to protect water quality.

Enrollment under the General Requirements requires Scheid Vineyards to comply with Monitoring and Reporting Program (MRP) No. R3-2002-0084. The MRP has been modified to eliminate content not relevant the facility (such as monitoring frequencies for smaller facilities). Water supply, production, chemical usage, influent, effluent, disposal area, and solid waste monitoring are required. Groundwater and disposal area soils monitoring are not required as the treatment and disposal method present little or no threat to underlying groundwater quality. Water Board staff will regularly inspect Scheid Vineyards to ensure continued compliance with the General Requirements.

The Monterey County Planning and Building Inspection Department, in accordance with the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000, et. seq.), adopted a Mitigated Negative Declaration for the Scheid Vineyards winery expansion on January 13, 2005.

Waiver of Waste Discharge Requirements

Lucas & Lewellen Vineyards, Solvang, Santa Barbara County [Matt Thompson 805/549-3159]

Regional Board staff tentatively enrolled Lucas & Lewellen Vineyards under General Waiver Resolution No. 2002-0115 on June 22, 2005. Lucas & Lewellen Vineyards is located at 1645 Copenhagen Drive, Solvang, Santa Barbara County.

Lucas & Lewellen Vineyards will produce up to 25,000 cases of wine per year, and generate up to 3,000 gallons per day of winery process wastewater during the crush season. Lucas & Lewellen Vineyards currently operates a small package type treatment facility located within the City of Buellton. This facility is rated to treat 2,400 gallons per day of winery waste utilizing "solids contact technology," and discharges this waste to the City of Buellton collection system.

The facility also generates approximately 500-1,000 gallons of aerobically digested sludge per month. This material is the result of solids wasting from the activated sludge process. Past practices has been to haul the digested solids to the Avila Beach CSD plant for final disposal. However, a new discharge method is proposed and the subject of this request for waiver.

The proposed method includes transport of 500 to 1,000 gallons of above mentioned digested solids per month to 269 acres of vineyard where it will be spread evenly between the vines, set back at least 100 feet from any surface water bodies. Staff recommends the Regional Board concur with enrolling Lucas & Lewellen Vineyards' discharge of winery solids under General Waiver Resolution No. 2002-0115.

General Waste Discharge Requirements for Discharges of Fruit and Vegetable Processing Wastes

Gourmet Veg-Paq, Hollister, San Benito County [Matthew Keeling 805/549-3685]

Regional Board staff enrolled Gourmet Veg-Paq, Inc.'s (Discharger) Hollister vegetable processing facility (Facility) under the General Waste Discharge Requirements for Discharges of Fruit and Vegetable Processing Waste, Order No. R3-2004-0066, on August 2, 2005. The Facility was previously unregulated by the Regional Board.

The Discharger owns and operates a new salad and vegetable packaging facility at 1400 Citation Way, Hollister, CA 95024 that is scheduled to begin operations in March 2006. The Facility is located within the Hollister City limits and the Discharger initially intended to discharge process wastewater to the city sewer prior to the sewer connection moratorium. The processing season is from March to November, with reduced activities from December to February. Prior to packaging, vegetables are washed with potable water from the City of Hollister municipal water supply. A 12.5% solution of sodium hypochlorite (chlorine) is added to the wash water for disinfection and citric acid is added to buffer the pH at 7. The wash water is recycled in the system for approximately two to three hours and filtered through three cloth filters prior to reuse. During the processing season, the peak daily wash water (process wastewater) flow is expected to be 14,000 gallons per day (GPD). No discharges will occur during the months of December, January and February. Based on data from the Discharger's operating facility in Gilroy, the process wastewater will likely be of relatively low organic strength. Although it is uncertain at this time how the water supply will affect the overall quality of the process wastewater with regard to nutrients and inorganics, it is not anticipated to have significant adverse affects on the wastewater quality. Process wastewater will be filtered through a series of fabric filters and stored in two 50,000-gallon holding tanks. The process wastewater will then be pumped into water trucks and used for dust control on approximately 52,800 lineal feet of farm roads owned by the Discharger (approximately 12.1 acres) in San Benito and Santa Clara Counties.

The City of Hollister adopted a Final Environmental Impact Report for the project on March 29, 2001 and the San Benito County Planning Commission approved the project in March 2002. Therefore, provisions of the California Environmental Quality Act (Public Resources Code, Section 21000, et. seq.) in accordance with Section 15321, Article 19, Chapter 3, Division 6, Title 14 of the California Code of Regulations have been satisfied.

Enrollment under the General WDRs requires the Discharger to comply with Monitoring and Reporting Program (MRP) No. R3-2004-0066. The MRP has been modified to eliminate content not relevant to the facility (such as monitoring frequencies for larger fruit and vegetable processors). Water supply quality, production, chemical usage, effluent, and disposal area monitoring are required. Groundwater and disposal area soils monitoring are not required due to the reuse of process wastewater for dust control on roads. However, disposal area monitoring requires the Discharger to keep a record of the time, location, and amount of process wastewater applied for dust control. In addition, reporting has been reduced from semiannual to annual for the Facility. Regional Board staff will regularly inspect the facility to ensure continued compliance with the General WDRs.

Gourmet Veg-Paq, Gilroy, Santa Clara County [Matthew Keeling 805/549-3685]

Regional Board staff enrolled Gourmet Veg-Paq, Inc.'s (Discharger) Gilroy vegetable processing facility (Facility) under the General Waste Discharge Requirements for Discharges of Fruit and Vegetable Processing Waste, Order No. R3-2004-0066, on August 1, 2005. The Facility was previously unregulated by the Regional Board.

The Discharger owns and operates a salad and vegetable packaging facility at 4395 Davidson Avenue, Gilroy. The processing season is from March to November, with reduced activities from December to February. Prior to packaging, the lettuce is washed with potable water from an onsite production well. A 12.5% solution of sodium hypochlorite (chlorine) is added to the wash water for disinfection and citric acid is added to buffer the pH at 7. The wash water is recycled in the system for approximately four hours and is filtered through three cloth filters prior to reuse. During the processing season, the peak daily wash water (process wastewater) flow is 8,100 gallons per day (GPD). No discharges occur during the months of December, January and February. The process wastewater is of relatively low organic (141 mg/L BOD) and nutrient strength (6 mg/L nitrate as nitrogen). However, the process wastewater does contain relatively high concentrations of total dissolved solids (1,260 mg/L-TDS) and chloride (156 mg/L-Cl) that are only slightly higher than concentrations within the process groundwater supply. Process wastewater is not treated prior to land disposal in a 2.9-acre bermed area via overhead sprinkler system consisting of four lines. The use of each line is alternated every three to four days. The disposal area is kept free of vegetation and each sprinkler area is disked and ripped periodically to facilitate infiltration and percolation. Shallow groundwater is reportedly encountered at approximately 8 feet below ground surface and an agricultural well is located approximately 100 feet west of the disposal area. The facility water supply well is located approximately 470 feet from the disposal area.

The Facility is an existing facility and enrollment in waste discharge requirements is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000, et. seq.) in accordance with Section 15321, Article 19, Chapter 3, Division 6, Title 14 of the California Code of Regulations.

Enrollment under the General WDRs requires the Discharger to comply with Monitoring and Reporting Program (MRP) No. R3-2004-0066. The MRP has been modified to eliminate content not relevant to the facility (such as monitoring frequencies for larger fruit and vegetable processors). Water supply quality, production, chemical usage, effluent, groundwater, soils, and disposal area monitoring are required. Groundwater and disposal area soils monitoring are required due to the localized disposal of wastewater, shallow groundwater conditions, and the presence of an agricultural well within approximately 100 feet of the disposal area. Groundwater monitoring consists of sampling of the adjacent agricultural well on a semiannual basis. In addition, reporting has been reduced from semiannual to annual for the Facility. Regional Board staff will regularly inspect the facility to ensure continued compliance with the General WDRs.

Costa Farms, Monterey County, [Martin Fletcher 805/549-3694]

Central Coast Water Board staff enrolled Costa Farms, under the General Waste Discharge Requirements for Discharges of Fruit and Vegetable Processing Waste, Order No. R3-2004-0066, on June 16, 2005. The Costa Farms facility was recently constructed and was previously unregulated by the Regional Board.

Anthony Costa & Sons owns and Costa Family Farms operates the Costa Farms fresh leaf lettuce packaging facility at 25875 Esperanza Road, Salinas, CA 93901.

The primary operating and processing season is from March to November with industrial wastewater resulting from facility cleaning and leaf lettuce washing. During the primary operating season the facility is expected to process approximately 8,500 tons of lettuce resulting in approximately 4,250 tons of product. Industrial wastewater flow is expected to average 60,000 gallons per day with a peak flow of 80,000 gallons per day.

Pretreatment consists of screens and separators to remove solids. Treatment consists of lined aeration ponds designed to remove 70% of the BOD organic load at average flows. Treated

process wastewater will be recycled and used for crop irrigation on up to 12 acres.

Order No. R3-2004-0066, "General Waste Discharge Requirements for Discharges of Fruit and Vegetable Processing Waste" (General WDR) was adopted by the Board on July 9, 2004. The intent of the General Requirements is to efficiently and consistently regulate fruit and vegetable processors in the Central Coast Region. The proposed discharge will comply with Regional Board standards, prohibitions, and requirements to protect water quality.

Enrollment under the General WDR requires Costa Farms to comply with Monitoring and Reporting Program (MRP) No. R3-2004-0066. The MRP has been modified to eliminate content not relevant to the facility (such as monitoring frequencies for smaller fruit and vegetable processors). Water supply quality, production, chemical usage, influent, effluent, pond, and disposal area monitoring are required. Groundwater and disposal area soils monitoring are not required as the treatment and disposal method present little or no threat to underlying groundwater quality. Water Board staff will regularly inspect Costa Farms to ensure continued compliance with the General WDR.

The Monterey County Planning and Inspection Department, in accordance with the provisions of the of the California Environmental Quality Act (Public Resources Code, Section 21000, et. seq.), adopted a Mitigated Negative Declaration for construction and operation of Costa Farms on April 17, 2003.

Staff Closed Cases

Golden Gate Petroleum Facility, 820 26th Street, Paso Robles, San Luis Obispo County [Corey Walsh 805-542-4781]

A 12,000-gallon diesel and 2,000-gallon kerosene underground storage tank (UST) were removed in September 1986. Soil contamination was observed during removal of the diesel tank, and approximately 80 cubic yards of contaminated soil were removed. In 1992, eight soil borings and three groundwater monitoring wells were installed to evaluate the extent of soil and groundwater contamination.

Additional USTs were removed in November and December 1994, and included a 12,000-gallon diesel, 10,000-gallon gasoline, 10,000-gallon red diesel, 2,000-gallon kerosene, and 2,000-gallon kerosene/stoddard solvent UST. The site is currently a bulk petroleum distribution facility, which operates two 12,000-gallon gasoline USTs and a 12,000-gallon diesel UST. The property is zoned for commercial/light industrial land use.

A second remedial soil excavation was completed in January 1995, when approximately 2,232 tons of soil were excavated and appropriately disposed of offsite. Additional soil and groundwater investigations were conducted in July 1997, August 1998, and 2004. Soil sample results from the 1994 remedial excavation and 1997 subsurface investigation indicate maximum soil concentrations of 2,800 milligrams per kilogram (mg/kg) total petroleum hydrocarbons reported as diesel (TPH-d), 240 mg/kg TPH reported as gasoline (TPH-g), and 0.5 mg/kg benzene. Maximum groundwater contaminant concentrations from July 1997 indicated 37,000 micrograms per liter (µg/L) TPH-g, 22,000 µg/L TPH-d, and 6.2 µg/L benzene. Methyl tertiary butyl ether (MTBE) concentrations have been below the groundwater cleanup goal of 5 µg/L.

Additional soil and groundwater remediation was conducted in 2004 using mobile high vacuum dual phase (soil vapor and groundwater) extraction, which removed approximately 4,200 gallons of impacted groundwater. The most recent sampling conducted on May 4, 2005, indicates maximum TPH-g and TPH-d concentrations of 160 µg/L and 400 µg/L, respectively. Benzene and MTBE concentrations are below laboratory detection limits in all monitoring wells.

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

Depth to underlying groundwater is approximately 10 feet below ground surface. Groundwater flow

is generally to the east/northeast with a gradient of 0.005 feet per feet. No municipal water wells are located within 2,000 feet of the subject site.

Based on the soil and groundwater cleanup actions and groundwater monitoring results, there is no threat to groundwater quality and no further soil or groundwater investigation or cleanup is necessary. The San Luis Obispo County Division of Environmental Health Services agrees with this determination. The property owner and the adjacent property owner have been notified of the case closure. The responsible party has been directed to destroy all monitoring wells and the Executive Officer will issue a final case closure letter upon receipt of a well destruction report documenting the proper destruction of all monitoring wells.

Watsonville Airport, 100 Aviation Way, Watsonville, Santa Cruz County; John Mijares 805-549-3696

In September 1994, the City of Watsonville airport staff discovered a leak coming from a common trench in which the aviation gas and jet fuel product lines were located. The city excavated the impacted soil to a depth of four feet around the leaking product line. Confirmation soil samples were collected and analyzed, with only one sample concentration exceeding the City of Watsonville Fire Department soil action level of 200 milligrams per kilogram (mg/kg) for total petroleum hydrocarbons (TPH). The city submitted an unauthorized release report on September 30, 1994.

Between September and December 1996, approximately 1,500 gallons of jet fuel was reportedly spilled from a broken jet fuel line. The impacted soil was excavated to 14 feet below ground surface in conjunction with the removal of two 12,000-gallon tanks and the installation of three 12,000-gallon double-walled fiberglass tanks.

In December 1996, the city installed a monitoring well (MW-1) directly downgradient of the tank pit. The initial groundwater analysis indicated 5,300 micrograms per liter (µg/l) of TPH as jet fuel, 6.8 µg/l benzene, and 110 µg/l methyl tertiary-butyl ether (MTBE). In the next round of groundwater sampling, benzene and MTBE were not detected above their respective laboratory reporting limits. The initial detection of MTBE may have been a false positive because jet fuel and aviation gasoline generally do not contain MTBE. Monitoring well MW-1 has been monitored quarterly for TPH as aviation gasoline and TPH as jet fuel since the first quarter 1997, with historic monitoring results indicating fluctuating concentrations of TPH above the groundwater cleanup goal of 1000 µg/l.

In October 2001, the city's consultant conducted a soil and groundwater investigation to delineate the extent of TPH contamination, and three additional monitoring wells were installed in May 2002. Groundwater depths range from 16.5 to 21 feet below ground surface and the flow varies to the east and southeast. The nearest municipal drinking water well is located approximately 2000 feet north of the site.

Results of groundwater monitoring since 1997 indicate generally decreasing concentrations of TPH as aviation gasoline and jet fuel. Groundwater sample results from all wells have been below the groundwater cleanup goal of 1000 µg/l for TPH since December 2004. Consequently, there is no threat to water quality and no further groundwater investigation or cleanup is necessary. The responsible party (City of Watsonville) has been directed to destroy all site monitoring wells. The Executive Officer will issue a final case closure letter upon receipt of a report documenting the proper destruction of the monitoring wells.

Cases Recommended for Closure

A-1 Ambulance, 241 Market Street East, Salinas, Monterey County, [John Goni 805-542-4628]

Staff recommends closure of this leaking underground storage tank case where, with two exceptions, concentrations of petroleum hydrocarbon constituents have attenuated to non-detectable concentrations or to concentrations below water quality objectives. April 2005 sampling results indicate maximum concentrations of total petroleum hydrocarbons (TPH) at 3.3 milligrams per liter (mg/L) and benzene at 43 micrograms per liter (µg/L) in monitoring well MW-1 as the only parameters greater than the cleanup goals. Toluene, ethylbenzene and xylenes concentrations in MW-1 are less than cleanup

goals. All other monitoring well samples did not contain gasoline contaminants. MTBE concentrations have attenuated from a high of 82 µg/L in 1996 to less than 5 µg/L in April 2005. No other fuel oxygenates have been detected at the site. Monitoring well MW-1 is located near the former fuel tank and is surrounded by five additional groundwater-monitoring wells. Current sampling indicated that no petroleum hydrocarbons exceed cleanup goals in the five surrounding wells.

One 500-gallon gasoline underground storage tank and an undetermined volume of contaminated soil were removed in 1986. TPH concentrations have declined a maximum of 60 mg/L to 3.3 mg/L, and benzene concentrations have declined from a maximum of 12,000 µg/L to 43 µg/L. Both maximum concentrations were from samples collected in March 1989 from monitoring well MW-1. Groundwater occurs at approximately ten feet below ground surface, and flows in a south-easterly direction at a gradient of 0.004 ft/ft. The site is underlain by a predominately fine-grained clay unit with thin interspersed layers of sands. The nearest water supply wells are currently not in service and are approximately 1900 feet northwest of the site. The residual petroleum hydrocarbons remaining beneath the site are unlikely to impact these wells considering the low concentrations, distance, groundwater flow direction, well construction details and chemical characteristics of the contaminants.

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 the site's soil and groundwater concentrations with corresponding environmental screening levels indicate no significant threat to human health and the environment.

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–total petroleum hydrocarbons (TPH), 1 µg/L-benzene, 150 µg/L–toluene, 300 µg/L–ethylbenzene, 1,750 µg/L–xylenes, and 5 µg/L–methyl *tertiary*-butyl ether (MTBE). Cleanup goals for MTBE and TPH have been established based on taste and odor thresholds and not health risks.

Staff recommends closure of this case based on the following: (1) the contaminant mass has been removed to the extent practical, (2) the contaminant plume is localized, well defined, and confined to an on-site area around one well and the former fuel tank, (3) the contaminant concentrations are not significantly above the cleanup levels, (4) based on historical monitoring data, the contaminant concentrations are expected to continue to decrease through natural attenuation and meet groundwater cleanup goals, and (5) the Monterey County Health Department closed the soil portion of this case in a letter dated June 30, 2005.

Closure is consistent with Section III.G, State Board Resolution No. 92-49, allowing consideration of cost effective abatement measures for a site where attainment of reasonable objectives less stringent than background water quality does not unreasonably affect present or anticipated beneficial uses of groundwater, and will not result in water quality less than prescribed by the Basin Plan.

The current property owner/responsible party, and responsible party's consultant have been notified of Water Board staff's recommended closure of this case.

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

<u>Former Granite Construction Yard, 1280 Shaffer Road, Santa Cruz, Santa Cruz County; [Tom Sayles 805-542-4640]</u>

Central Coast Water Board (Water Board) staff recommends closure of this case where arsenic groundwater concentrations in March 2005 indicated a maximum of 64 micrograms per liter (µg/L) in only one well compared to the cleanup goal of 50 µg/L. The site is a 9.8-acre parcel formerly used as a construction yard. An initial

assessment completed in 1995 identified several potential environmental concerns including two underground storage tanks (USTs) and a treated wood disposal area. Scrap debris collected from various projects from 1965 to 2002 were buried in the eastern part of the property and contained wood that may have been treated with arsenic. In 1997, one 10,000-gallon gasoline UST and one 10,000-gallon diesel UST and the associated dispensers and piping were removed under Santa Cruz County Health Services Agency supervision. Based on the soil sample results, the county and the Water Board concluded that no further action was required and the Water Board issued a closure letter dated December 23, 1997.

A Phase II investigation completed on January 17, 1998, determined that arsenic had impacted soil beneath the site with a maximum concentration of 50 milligrams per kilograms (mg/kg). An additional assessment was completed in March 2002 to fully define the extent of arsenic in the soil and to determine the human health risks associated with a proposed residential development. Based on the results, the responsible party's (RP) consultant recommended a clean layer of soil (i.e., cap) be placed over the arsenic contaminated soil as the most feasible method to protect human health and potential future environmental impacts. In May 2002, two groundwater monitoring wells were installed to evaluate the extent of arsenic impacts to groundwater. The initial results from samples collected on May 17, 2002, detected a maximum concentration of 350 µg/L arsenic in monitoring well MW-2; all petroleum hydrocarbon constituents were below cleanup goals.

Because of the proposal to redevelop the site with residential housing units, an environmental impact report was completed and based on the concentrations of arsenic in the soil and groundwater, a revised risk analysis was completed to include the groundwater results. Based on the revised risk analysis, the most feasible cleanup method for the site was still the proposed ten foot cap of clean soil being placed over the contaminated soil as the most effective method to protect human health and the waters of the state near the site.

The Water Board, county health, and the RP agreed that in addition to the cap, the approved cleanup method would include over-excavation, segregation and removal of any treated wood debris and disposal of any hot-zone soil prior to placing the ten-foot cap. Remedial excavation activities were implemented from October 3, 2003, to December 13, 2003, segregating approximately 82,000 cubic yards of soil. Based on soil sampling analysis and sifting over 500 tons of debris and approximately 283 tons of contaminated soil were removed and disposed of offsite. Approximately 77,000 gallons of groundwater were pumped and treated prior to discharge to the sanitary sewer during dewatering activities associated with the excavation. The ten-foot thick cap of clean soil was placed on top of the residual soil to encapsulate any arsenic left in place. A deed restriction will be recorded with the property indicating that the cap must be maintained intact and not penetrated by wells, excavation or any other disturbance to soil or groundwater beneath the cap.

Following the remedial actions, four new groundwater wells were installed and two surface water sample locations were sited in Moore Creek to evaluate the effectiveness of the soil cleanup and groundwater conditions. The most recent groundwater samples collected on March 16, 2005, indicate a maximum concentration of 64 µg/L arsenic in monitoring well MW-5, upgradient of MW-2, the initial area of concern. The 64 µg/L arsenic concentration when compared to previous concentrations shows a decline from the sites maximum concentration of 350 µg/L in the sample collected on May 17, 2002. Arsenic has not been detected in the surface water samples since monitoring was initiated. In addition, a subsurface drain system was installed beneath the cap during site development and has been monitored quarterly. Arsenic has not been detected in any samples collected from the subdrain system. The decreasing trend in arsenic concentrations and the removal of the source of arsenic (i.e., treated wood debris) appears to have been effective in reducing concentrations in soil and groundwater. The March 16, 2005, groundwater monitoring results indicate that samples collected from the wells and the Moore Creek were below cleanup goals for arsenic except the sample from MW-5 at 64 µg/L.

The site lies within the San Lorenzo 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, the groundwater cleanup goal for arsenic is 50 µg/L, which is the primary maximum containment level.

Groundwater is approximately 3 to 33 feet below ground surface and flows to the southeast at approximately 0.036 feet/foot. The extents of arsenic impacts and subsurface conditions have been adequately characterized. MW-5 is the only well containing arsenic concentrations above the cleanup goal and is located upgradient of the source area. The current detection of arsenic in MW-5 may be representative of the naturally occurring groundwater conditions.

There are no water supply wells located within 1/2-mile of the site. County health department staff agrees that no further action should be required with respect to soil or groundwater investigation, cleanup or monitoring for this case. The Water Board, county health, and the RP are developing a deed restriction that will run with the property to provide for long-term maintenance of the cap and subdrain system. The current property owner, the RP, and the RP's consultants have been notified of Water Board staff's recommendation for case closure.

Water Board staff recommends closure for this case based on the following: (1) the bulk of the contaminant mass has been removed from the site to the extent practical, (2) the extent of groundwater contamination has been fully defined, is localized near onsite well MW-5, and is declining in concentration, (3) arsenic concentrations are approaching the cleanup goal of 50 µg/L, (4) the cap has been placed over the entire property to eliminate potential human exposure to residual arsenic left in place and has reduced the potential for continued arsenic leaching to the groundwater, (5) arsenic has not been detected in any samples collected from the downgradient wells, the subdrain system, or Moore Creek, (6) based on the monitoring data, the arsenic concentration is expected to decrease with time through natural processes such as dispersion and dilution.

Closure is consistent with Section III.G. State Board Resolution No. 92-49, allowing consideration of cost effective abatement measures for a site where attainment of reasonable objectives less stringent than background water quality does not unreasonably affect present or anticipated beneficial uses of groundwater, and will not result in water quality less than prescribed by the Basin Plan. Unless the Water Board objects with staff's recommendation for case closure, staff will direct the RP and RP's consultant to properly destroy the groundwater monitoring wells prior to issuing a formal case closure letter.