

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

**STAFF REPORT FOR REGULAR MEETING OF FEBRUARY 2, 2001**

Prepared on January 10, 2001

**ITEM: 8**

**SUBJECT: Executive Officer's Report to the Board**

Brief discussion of some items of interest to the Board follow. Upon request, staff can provide more detailed information about any particular item.

**Watershed and Cleanup Branch Reports**

**REGULATION SUMMARY OF  
OCTOBER/NOVEMBER 2000**

[Corinne Huckaby 805/549-3504  
and Maura Mahon 805/542-4642]

Orders

Reports of Waste Discharge Received	12
Requirements Pending	52
Inspections Made	67
*Self-Monitoring Reports Reviewed (WB)	257
*Self-Monitoring Reports Reviewed (CB)	239
Stormwater Reports Reviewed	8

Enforcement

Non-Compliance Letters Sent:	
NPDES Program	2
Non-Chapter 15 WDR Program	8
Chapter 15 Program	0
Unregulated	0
CAOs Issued	1
ACL Complaints	3
Notice to Comply (NTC)	0
Storm Water (NOV)	3
Unregulated (FTS's – Tanks)	0

**WATER QUALITY CERTIFICATIONS**

[Corinne Huckaby 805/549-3504]

Conditional Certification is appropriate when a project may adversely impact surface water quality. Conditions allow the project to proceed

under an Army Corps permit, while upholding water quality standards.

The Office of Administrative Law (OAL) has given approval of the "rule making record" and proposed regulations to govern Water Quality Certification. The new regulations effect the following changes:

1. Delegate day to day certification action to the Regional Boards (EO). Multi-Region issues and water rights issues are still handled by State Board.
2. Implement a new fee structure. The new fees are: \$500 for standard certification and \$1000 per acre (up to 10 acres) for conditional certifications. There are three actions available, Standard Certification (\$500), Conditional Certification (\$1000/acre up to 10 acres), and Denial.
3. Revise the petition process to include aggrieved parties, not just the applicant.
4. Bring the program into better compliance with CEQA, permit streamlining, the Clean Water Act and Porter-Cologne.

In general, staff recommends "Waiver of Certification" when the applicant proposes adequate mitigation. Measures included in the application must assure that beneficial uses will be protected, and water quality standards will be met.

Staff will recommend "No Action" when no discharge or adverse impacts are expected. Generally, a project must provide beneficial use and habitat enhancement for no action to be taken by the Regional Board. A chart on the following page lists applications received through December 15, 2000.

WATER QUALITY CERTIFICATION APPLICATIONS RECEIVED BETWEEN NOVEMBER 1 AND DECEMBER 15, 2000

DATE RECEIVED	APPLICANT	PROJECT DESCRIPTION	LOCATION	RECEIVING WATER	ACTION TAKEN
November 3, 2000	Caltrans	Installation Concrete Lined Ditch	Vandenberg AFB	Drainage Ditch	Standard Certificat
November 3, 2000	Duke Energy	Intake Structure Maintenance Dredging	Morro Bay	Pacific Ocean	Pending
November 3, 2000	Templeton Properties	Stormdrain outlet for Tract 2348	Templeton	Toad Creek	Pending
November 9, 2000	Creekside Homes	Culvert Construction At Creekside Homes Development	Shandon	San Juan Creek Tributary To Estrella River	Pending
November 15, 2000	South County Housing	Remove 3 Existing Stormdrain Outfalls	Gilroy	North and South Morey Channel	Pending
November 17, 2000	Ernest DeGasparis	Wetlands restoration	Guadalupe	Santa Maria River	Standard Certificat
November 22, 2000	SLO County Planning and	Old Creek Road Bank Stabilization Project	Cayucos	Old Creek Road	Pending
November 22, 2000	Tower Grove Vintners	Construct deceleration lane on Hwy 101	Arroyo Grande	Tributary to Los Berros Creek	Pending
November 30, 2000	Caltrans	Emergency Highway Repair	San Luis Obispo	Tidal waters San Simeon/El Estero Bay	Standard Certificat
November 30, 2000	Caltrans	Emergency Highway Repair	North of Piedras Blancas	Tidal waters	Standard Certificat
November 30, 2000	Caltrans	Removal of Sediment in Drainage	San Luis Obispo	Dairy Creek tributary to Chorro Creek	Pending
November 30, 2000	Santa Cruz Port District	Annual harbor maintenance dredging	Santa Cruz	Pacific Ocean	Standard Certificat
December 7, 2000	Monterey County Public	Bridge Seismic Retrofit Project	Between Marina and Castroville	Salinas River	Pending
December 13, 2000	San Luis Obispo	Pozo road Bank Stabilization Project	Santa Margarita	Pozo Creek	Pending

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**(Watershed Branch Reports continued)**

**STATUS REPORTS**

Paso Robles Wastewater Treatment Facility,  
Status Report [David M. Athey 805/542-4644]

**Plant Capacity Issues**— Regional Board staff is closely following capacity issues at the Paso Robles Wastewater Treatment Facility. A recent newspaper article discussed hydraulic, organic and solids handling capacities. The plant is currently treating an average daily flow of 2.9 million gallons per day (MGD) from the City of Paso Robles and the Town of Templeton. The plant is designed for an average daily flow of 4.9 MGD. The organic capacity of the plant is currently around 65 to 75% depending on flow. Solids handling has been a concern of Regional Board staff and the City. The City is currently looking into adding an additional mechanical de-watering system and sludge digester. The de-watering system (i.e., belt press) is needed because of a lack of space for additional sludge drying beds. The City is currently preparing a solids handling upgrade report but staff has not yet received the proposal. Monitoring data indicates that treatment efficiency has not been compromised as a result of increased solids loading.

**Sewer Capacity Issues**- The City has hired Carollo Engineers to develop a sewer line capacity model for the Templeton Interceptor. This model will incorporate current flow data from the Templeton interceptor and other lines feeding the southern pump station. This will allow the City to plan for a possible expansion of the lift station and or limiting growth until the upgrade is completed. Staff is not aware of any overflows in either the Templeton Interceptor or the Southern Lift Station.

Waiver of Waste Discharge Requirements for  
Z-Best Composting Facility, Santa Clara  
County, Order No. 96-10 [Kimberly Gonzales  
805/549-3150]

Zanker Road Resource Management Ltd. (ZRRML) owns Z-Best Composting Facility. The Regional Board has regulated this facility

under the General Storm Water Industrial Permit and the Waiver of Waste Discharge Requirements for Compost Operations Order No. 96-10 since September 1997.

On November 19, 1999, Edgar and Associates, on behalf of ZRRML, submitted a letter and a report of waste discharge describing proposed changes for Z-Best Composting Facility. On November 2, 2000, Regional Board staff spoke with Mr. Edgar, from Edgar and Associates, regarding proposed changes to the facility. Materials permitted at the facility will include post-consumer food waste, gypsum processed from source-separated wallboard, green waste, agricultural wastes, food processing waste, and construction and demolition materials. The facility proposes to expand within the 77-acre portion of the property approved for compost operations. With proper management practices, the changes described in the report of waste discharge and in subsequent conversations with Edgar and Associates are expected to pose no significant threat to water quality or public health.

On December 18, 2000, Regional Board staff granted Z-Best Composting continued coverage under Order No. 96-10, "Conditional Waiver of Waste Discharge Requirements." Z-Best Composting is required to maintain coverage under the Storm Water Industrial Permit, and is also required to notify the Regional Board within thirty days of any changes in the facility's nature, ownership, operation, or location. The Regional Board reserves the right to issue individual or general waste discharge requirements for this facility.

Identifying the Sources of Bacterial  
Contamination in the Morro Bay Estuary  
[Katie McNeil 805/549-3336]

High concentrations of fecal coliform, both sporadic and rain-event associated, exceeding water quality objectives have been found throughout the past several years in the Morro

Bay estuary. These elevated levels have resulted in a permanent shellfish harvesting closure to portions of the growing area by the Department of Health Services. Potential sources of fecal coliform include leaking or failing septic systems, agricultural runoff, boating discharge, faulty wastewater treatment plant operations, domestic animal waste, and birds and wildlife (marine and terrestrial).

The Shellfish Protection Act of 1993 requires the Regional Board to convene a Technical Advisory Committee (TAC) when shellfish harvesting areas are threatened. In 1996 when elevated levels of bacteria were found, the Regional Board established a TAC to conduct water quality investigations and develop remediation strategies for the shellfish growing area. Members of the TAC include the commercial shellfish growers, the Los Osos Community Services District, the Farm Bureau, the Morro Bay National Estuary Program, California Polytechnic State University, the State Water Resources Control Board, the Regional Water Quality Control Board, the City of Morro Bay, the Department of Health Services, the Department of Fish and Game, and other organizations and agencies.

A DNA fingerprinting study is currently being conducted under direction from the TAC to identify the relative contribution of sources of fecal coliform that are impacting the shellfish harvesting waters in the Morro Bay estuary. The results of the study will be used to develop the Pathogen Total Maximum Daily Load for Morro Bay. The State Water Resources Control Board has provided funding for the study.

The TAC chose 41 sampling sites for this study, with 20 sites in the estuary and the remaining from creeks, urban storm drains, seeps, and groundwater wells in the surrounding watershed. The sites have all been sampled during two wet season sampling periods and two dry season sampling periods, with the exception of the sites draining urban areas, which were only sampled during periods of wet season runoff. The wet sampling events were initiated when the shellfish growing areas were closed by the Department of Health Services following 0.4" of rainfall

within a 24-hour period in the watershed. The initiation of the dry season sampling event was determined by the occurrence of a sporadic "spike" of fecal coliform bacteria in the previous 24 hours in the bay. The samples to determine if a "spike" occurred were taken from the northern growing area. This site was chosen because it is the area of greatest concern as it is closed year-round due to sporadic high levels of coliform.

The samples were analyzed for total and fecal coliform from certified laboratories. Of the 41 sites, five sites were selected for further ribotyping analysis at selected intervals to obtain a DNA fingerprint. The number of sites and the frequency of sampling were chosen to provide statistically meaningful results. The five sites included three bay sites within the shellfish growing area and two sites in the two creeks that feed the bay. Sediment and shellfish tissue samples were also taken at these locations for ribotyping. California Polytechnic State University, along with the Regional Board collected the samples. The University of Washington is performing the DNA fingerprinting analyses.

The DNA fingerprints obtained from samples collected from the five sites are being compared to a "source library" at the University of Washington to determine the origin of the sample. To date, California Polytechnic State University has collected over 500 strains in the watershed directly from known sources to add to the "source library". Domestic mammal fecal samples, including livestock samples, have been provided courtesy of local landowners. Human samples have been collected on a voluntary basis from individuals and from the wastewater treatment plants serving the watershed. Birds and wild mammal samples have been collected by tracking an animal visually and collecting fecal matter.

Various quality assurance measures have been taken as part of the project to quantify data validity and precision. These measures include taking duplicate water quality samples for fecal coliform analysis, analyzing triplicate strains of bacteria for DNA fingerprinting, and providing three replicate samples of known quantities of coliform to each of the labs

involved in this study as a determination of inter-laboratory variability. The preliminary results of the study and the uses of the data will be discussed on January 11, 2001, at the TAC meeting.

Three additional components of the study are currently being considered by the TAC. During the dry season, unfortunately, sporadic high levels were not captured during the sampling event, even with the previous day's "spike" detected to initiate the event. Because of the difficulty in capturing a sporadic incident, the TAC recommended a more focused effort on the growing area that is closed year-round. The focus of this sampling effort will be to characterize the sporadic spikes found in the northern portion of the shellfish lease area during Summer 2001.

The TAC also proposes an additional wet season sampling period due to too few coliforms and thus too few DNA fingerprints, found at some of the sites during the early winter sampling event. The data obtained will supplement information regarding rainfall-related closures.

Lastly, the TAC proposed additional quality assurance measures to further evaluate the quality of the data. The purpose of these measures is to increase the statistical accuracy of the previous quality assurance efforts and to transfer the further understanding of the DNA fingerprinting methodology to other watersheds and regions state-wide.

The TAC will discuss additional components of the study at the January meeting, with implementation expected in Spring 2001.

The DNA fingerprinting results, along with the fecal coliform data will be used to determine relative contributions of fecal coliform to the bay for the development of Total Maximum Daily Loads, and to prioritize implementation to protect the beneficial uses of the bay. The final results and interpretation of the DNA fingerprinting effort will be included in draft and final reports prepared by the California Polytechnic State University, with input from the TAC. The study is expected to be completed by the end of 2001.

Adventco Holding Corporation, Pasatiempo Investments, Pasatiempo II Investements, and Richard S. Gregersen, The Inn at Pasatiempo [Howard Kolb 805/549-3332]

At the September 15, 2000 Regional Board meeting, the Board discussed Adventco Holding Corporation, Pasatiempo Investments, Pasatiempo II Investments, and Richard S. Gregersen, The Inn at Pasatiempo (collectively known as Dischargers), failure to comply with the revised timeline for installation of enhanced onsite wastewater treatment system (system). The Regional Board directed the Dischargers to report to the Board by October 27, 2000, with a signed contract for installation of the system and a date for when installation will be complete.

On October 27, 2000, the Dischargers presented the Board with a signed contract for installation of the system and a date of January 15, 2001 for installation of the system. On December 6, 2000, Regional Board staff inspected the facility and observed construction had begun. On December 14, 2000, the Dischargers submitted a letter confirming excavation for system installation. On December 29, 2000, staff spoke with representatives for the Dischargers and confirmed that construction is proceeding. Staff will inspect the facility prior to the February 2, 2001 Regional Board meeting to confirm system installation and operation.

Pacific Grove Wastewater Collection System [Lida Tan 805/542-4785]

Pacific Grove submitted a letter dated 12/14/00, (see Attachment 1) responding to our inquires about the City's sewer budget and steps taken to prevent frequent sewage spills. The letter provides the details about the measures taken over the last year, such as increased sewer line cleaning, implementing the grease trap ordinance, an emergency response protocol for sewage spills, a draft Inflow/Infiltration and Spill Prevention Program, the city's Drainage Study Master Plan, and a Capital Improvement Program for

the Sewer System. The City completed all of these steps last year.

While the City has taken some sound steps in addressing its aging sewer system and its problems, there is no guarantee that these steps are enough to prevent any major sewage spills.

A recent Grand Jury report had questions about leaking sewer lines. The City's recent smoke testing should reveal leaky lines. The City plans on fixing all leaks.

### **Cleanup Branch Reports**

#### **LOW THREAT DISCHARGES**

This section is for dischargers who have requested approval to discharge water that poses insignificant threat to water quality or for sites recommended for case closure (low risk sites where no further regulatory action is required). Consequently, we conditionally approved of these proposals. Conditions common to each approval are:

1. If you, the Regional Board, object to the proposal, an NPDES permit or waste discharge requirements will be prepared for the Board's consideration.
2. The discharger remains liable for any treatment system failure that results in significant discharge of pollutants.
3. We have a "low threat discharges" general permit for surface water discharges available, and the discharger may be required to file for coverage by that permit.

Site descriptions and specific conditions are listed below for each case.

#### **CASE CLOSURES FOR ABOVE AND UNDERGROUND TANKS (UGT), AND SPILLS, LEAKS, INVESTIGATIONS AND CLEANUPS (SLIC)**

This section is formatted to easily identify sites where staff is recommending case closure concurrence from the Board. Case closures generally fall into two categories - cases where cleanup goals have been met and cases where cleanup goals have not been met. In the first case, staff generally sends the responsible party a letter stating the case is now closed since cleanup objectives have been met and no further action is needed. Unless the Board objects, staff will continue to send closure letters and simply report these cases by way of the Executive Officer's report.

The second situation occurs where cleanup objectives are not yet met, but for various reasons, staff is recommending closure. These cases will be reported to the Board in more detail. For example, staff has discovered that some sites have a plume of contamination confined to a defined area. Ground water monitoring may show the plume is decreasing both in concentration and size, and does not threaten probable beneficial uses. Other specific circumstances may exist such as the plume may be confined to a shallow portion of the aquifer with no actual or expected uses of the groundwater. The reasons for staff recommending closure will be explained with each case.

We are presenting these closures in a manner similar to the way we present waivers of waste discharge requirements. That is, the case will be discussed and if the Board does not object to a case or wishes more information, the issue may be discussed at the Board meeting where we can provide clarification or the Board may reject our recommendation for closure.

Abbreviations commonly used for these cases:  
TPH - Total Petroleum Hydrocarbons  
TPHd - TPH measured in the carbon range of diesel  
TPHg - TPH measured in the carbon range of gasoline  
BTEX - Benzene, Toluene, Ethylbenzene, Xylene (components of gasoline)  
MTBE - Methyl Tertiary Butyl Ether (gasoline oxygenate additive)  
DCA or 1,2, DCA - dichloroethane (gasoline additive)  
DCE - dichloroethylene (gasoline additive)

PCE -tetrachloroethylene or perchloroethylene  
(perc - a solvent)  
TCE - trichloroethylene (a solvent)  
TCA - trichloroethane (a solvent)

**Staff Recommended Closure**

Wickland Properties, Former Regal Station #430,  
1104 Ocean Street, Santa Cruz, Santa Cruz  
County [Bob Hurford 805/542-4776]

The site is located at 1104 Ocean Street in downtown Santa Cruz, California on the northeast corner of Ocean and Hubbard Streets. Properties surrounding the site are primarily residential to the east side of Ocean Street and commercial across Ocean Street to the west. Wickland Properties (Wickland) owned and operated a service station at this site with three 10,000 gallon gasoline underground storage tanks (USTs). Wickland removed the USTs in September 1988. Soil and ground water contamination was reported during the UST removal. Before the installation of three new double walled tanks in October 1988, 250 cubic yards of soil was excavated. The property was sold to another gasoline service station retailer and Wickland never operated the new USTs.

A significant increase in MTBE concentrations was observed in ground water samples collected from ground water monitoring well MW-4 in 1996. Based on subsequent investigation activities, the MTBE-impact to ground water is a result of the current gasoline station operations. However, the cause of the release has not yet been determined. A new leaking UST case has been opened at the site with the current property owner as the responsible party. The owner has hired a consultant and applied to the UST Cleanup Fund. Development of a corrective action plan is expected soon. Currently, ground water at the site is monitored quarterly with the four remaining monitoring wells.

Historical trends of petroleum hydrocarbon constituents found in ground water indicate all petroleum constituents related to Wickland's operation of the former Regal Station #430 would have achieved this Board's Water

Quality Objectives by now. Clearly, petroleum hydrocarbon-impacts to soil and ground water at the site are due to the gasoline retail operations since Wickland removed their USTs and sold the property in 1988. Mr. Brian Neuchwander, the property owner, was notified of staff's recommendation to close Wickland's case and name him as the new responsible party for a second release at the subject site.

**Staff Closed Case**

R. Burke Corporation Equipment Yard, 865-  
875 Capitolio Way, San Luis Obispo, San Luis  
Obispo County [Sheila Soderberg 805/549-  
3592]

In November 1995, two 1,000-gallon underground storage tanks (UGT), fuel dispensers, and associated underground piping were removed from the R. Burke Equipment Yard located at 865 Capitolio Way, San Luis Obispo. During UGT removal activities, petroleum hydrocarbon constituents were detected in soil beneath the removed diesel and unleaded gasoline UGTs and approximately 30 cubic yards of soil was removed, and aerated onsite. Under the purview of the City of San Luis Obispo Fire Department (City), the aerated soil was sampled and used as backfill material in the former UGT area. In addition, the City issued a Notice of Violation to R. Burke Construction (hereafter Discharger) to further define the extent of petroleum hydrocarbon constituents remaining in soil. The Discharger submitted a work plan, which was approved by the City. In January 1996, three borings and one ground water monitoring well were installed at the subject site. In February 1996, the City requested the Discharger to submit a corrective action plan and referred this UGT case to the Regional Board.

In November 1996, the Discharger submitted a work plan and Regional Board staff requested further information to be submitted in 1997. In April 1998, Regional Board staff concurred with the Discharger's work plan. In September 1998, eight additional borings were drilled and three borings were converted to

ground water monitoring wells. During the October 8, 1998 ground water sampling event, maximum concentrations of total petroleum hydrocarbons as gasoline (TPHg), benzene, and methyl tertiary-butyl ether (MTBE) were 400 micrograms per liter ( $\mu\text{g/l}$ ), 24  $\mu\text{g/l}$ , and 28  $\mu\text{g/l}$ , respectively. Semi-annual ground water monitoring was performed in 1998 and 1999 to monitor natural attenuation of petroleum hydrocarbon constituents remaining in ground water. During the December 1999 ground water sampling event, all petroleum hydrocarbon constituents, including MTBE, were below this Board's water quality objectives. In the Regional Board's August 23, 2000 letter to the Discharger, Regional Board staff determined that UGT case closure was appropriate and requested destruction of existing ground water monitoring wells. In October 2000, a well destruction report was submitted. Regional Board staff issued a Site Closure letter to the Discharger on November 8, 2000.

#### **Corrective Action Plan Approvals**

Templeton Products, Chevron Service Station, 701 Las Tablas Road, Templeton, San Luis Obispo County [Sheila Soderberg 805/549-3592]

In November 2000, Board staff approved the Workplan for Limited Offsite Site Remediation and Sampling Program Modification (Plan) for Templeton Products' service station located at 701 Las Tablas Road, Templeton. The Plan proposed installation of Oxygen Releasing Compounds (ORC™) socks in offsite monitoring wells MW-5, MW-10, and MW-12. The sock is designed to increase oxygen in the ground water in an effort to stimulate bioremediation for removal of petroleum hydrocarbon contaminants in ground water. This passive remedial technology is being used in the offsite wells in conjunction with an onsite soil vapor extraction and air-sparge system (VES/AS system). Ground water monitoring, which includes dissolved oxygen measurements, will continue to be performed in conjunction with monitoring of the VES/AS system to evaluate the cleanup.

Chevron Products Company, Former Service Station #9-0028, 12 Ocean Avenue, Cayucos, San Luis Obispo County [Sheila Soderberg 805/549-3592]

Chevron Products Company submitted a Workplan for Initiation of Enhanced Passive Remediation (Plan) for a former service station located at 12 North Ocean Avenue, Cayucos. The Plan proposes installation of Oxygen Releasing Compounds (ORC™) in monitoring well GTI-6 and within an infiltration gallery along the southern boundary of the site. ORC™ is designed to increase oxygen in ground water in an effort to stimulate bioremediation for removal of petroleum hydrocarbon contaminants.

In January 1989, the underground storage tanks (USTs), fuel dispensers, and associated piping were removed from the subject facility as part of station decommissioning. After several episodes of site investigation, a soil vapor extraction (SVE) system and ground water extraction system were operated from 1991 until the March 1996. In April 1996, further excavation in the vicinity of the former USTs and northern pump island was performed. In 1997, a SVE and air sparge system was operated to remove residual petroleum hydrocarbon constituents remaining in soil.

Historically, persistent high concentrations of petroleum hydrocarbon constituents have been detected in GTI-6 compared to ten other monitoring wells. Ground water monitoring will continue to be performed on a semiannual basis to evaluate the removal of petroleum hydrocarbon constituents remaining in ground water.

Texaco Service Station, 1205 24<sup>th</sup> Street, Paso Robles, San Luis Obispo County [Sheila Soderberg 805/549-3592]

Equiva Services LLC (Equiva) proposes implementation of an Addendum to the Remedial Action Plan (Plan) at the Texaco Service Station located at 1205 24<sup>th</sup> Street,



Paso Robles. In October 1986, petroleum hydrocarbon constituents were discovered in soil and ground water during underground storage tank (UGT) removal/replacement activities. From 1986 until 1997, numerous subsurface investigations indicated that petroleum hydrocarbon constituents, including methyl tertiary-butyl ether (MTBE), were present in shallow and deeper water-bearing zones beneath the site. In 1995, a soil vapor extraction (SVE) system was operated at the site to remove petroleum hydrocarbons from soil, and approximately ten cubic yards of soil was excavated when the fuel dispensers were removed and replaced. From February 1995 until June 1997, approximately 188,000 gallons of water was extracted, treated, and discharged to the storm drain under Order No. 96-4, National Pollutant Discharge Elimination System (NPDES) No. CAG993001, Waste Discharge Requirements, General Permit for Discharges with Low Threat to Water Quality (General Permit).

In September 1997, Equiva submitted a Plan to install a SVE/biosparge/ground water extraction system and perform further offsite investigation of the petroleum hydrocarbon plume in ground water. In December 1997, Regional Board staff approved the Plan and provided comments. In February 1998, Equiva addressed staff's comments and installed additional offsite ground water monitoring wells. In 1998 and 1999, property related issues delayed the implementation of the Plan, since it was uncertain whether the property would remain a service station facility or developed as another business. As part of interim corrective action until the property negotiations were complete, Equiva installed Oxygen Release Compound® (ORC®) "socks" into selected monitoring wells to increase oxygen into the aquifer and stimulate bioremediation.

The service station facility was decommissioned in mid-November 2000. The existing UGTs, fuel dispensers, and associated piping were removed and petroleum hydrocarbon-impacted soil removed to a maximum depth of 20 feet below ground surface, approximately 1 to 2 feet into ground water. Verification sampling of the sidewalls

and bottom of the excavation(s) was performed. The bottom two feet of the excavations were backfilled with a two-foot thick slurry mixture of clean-imported soil and ORC® and the remainder of the excavation filled with imported fill materials. As with the ORC® "socks", the ORC® slurry mixture is expected to increase oxygen in the capillary fringe within the aquifer. Quarterly ground water monitoring will continue to be performed to monitor intrinsic biodegradation of petroleum hydrocarbons in ground water.

Miller Property, 2210-2222 Main Street, Cambria, San Luis Obispo County [Sheila Soderberg 805/549-3592]

In August 2000, the Miller Family Trust (Miller Trust) submitted a Remediation Pilot Study Report and Corrective Action Plan (Plan) for a former service station property located at 2210-2222 Main Street, Cambria. The Miller Trust property is located approximately 40 feet from the Chevron service station located at 2194 Main Street, Cambria, and approximately 400 feet from Cambria Community Service District (CCSD) Well No. 3. Petroleum hydrocarbon constituents have been detected in ground water at concentrations exceeding this Regional Board's water quality objectives, however the fuel additive methyl tertiary-butyl ether (MTBE) is not a contaminant of concern for this site.

The Plan details the installation of two observation wells and the results of a high-vacuum-dual-phase extraction (high vac) test. As part of the Plan, four new high vac wells and a high vac system are proposed to cleanup petroleum hydrocarbon constituents in ground water. Within the Plan, the Miller Trust indicated that further evaluation is needed whether to implement a mobile or stationary system. As noted in the Regional Board's December 7, 2000 letter to the Miller Trust, the Plan also did not evaluate whether extracted ground water will be disposed of offsite at a disposal/recycling facility or treated onsite and either discharged to the CCSD's sewer system, to Santa Rosa Creek, or re-injected into the aquifer. Also in the response

letter, Regional Board staff concurred with the Plan to operate a high vac system onsite, however requested that the system and water disposal/treatment evaluations be submitted to Regional Board and SWRCB Underground Storage Tank Cleanup Fund staff by January 31, 2001. If on-site disposal is proposed, staff will develop the appropriate discharge order (or waiver) for Board consideration. Concurrent with cleanup, Regional Board staff also requested a work plan by February 2, 2001 to further define petroleum hydrocarbon constituents detected in bedrock materials beneath the subject facility.

## **STATUS REPORTS**

### Former Casmalia Hazardous Waste Landfill, Santa Barbara County [Dan Niles 805/549-3355]

This status report provides the Regional Board a general overview of the Casmalia Site. The historic summary describes some of the more important regulatory aspects of the site and also provides a description of the site layout. A series of figures are included to help get a better understanding of the site's evolving configuration. On-site water management issues are also emphasized towards the end of the summary.

The second part of this status report provides the Regional Board with an overview of staff's current regulatory involvement at the site as it relates to key aspects of work performed pursuant to the United States Environmental Protection Agency's (U. S. EPA) and Casmalia Resources Site Steering Committee's (CSC) Consent Decree.

### Historic Summary

The Casmalia Site, known as the Casmalia Resources Hazardous Waste Management Facility, was an active hazardous waste disposal facility from 1973 to 1989. The Casmalia Site is located in northern Santa Barbara County immediately north and east of Vandenberg Air Force Base, and approximately eight miles southwest of Santa Maria (Attachment 2). The site is 252 acres, all of which are part of current remedial efforts.

The Regional Board and California Department of Toxic Substances Control regulated the facility until U. S. EPA assumed lead authority on-site in 1992. Pre-existing Regional Board Orders remain in place, but have not been implemented or enforced since U. S. EPA became the lead agency.

During active facility operations, between 4.5 and 5.5 billion pounds of liquid and solid wastes were disposed at the site. Types of wastes included heavy metals, organic solvents, pesticides, polychlorinated biphenyls, petroleum hydrocarbons, oil field wastes, and minor quantities of miscellaneous wastes. Historically, the site contained numerous surface impoundments that were subsequently excavated under Regional Board orders and placed into four of six on-site landfills based on waste category (Attachment 3). Five of the six landfills exist today (the sixth was excavated and placed into one of the remaining landfills) and are the primary focus of recent remedial efforts including plans for installing cover systems over the landfills (Attachment 4). A cover system was constructed over the Pesticides/Solvents landfill in 1999 by contractors for the CSC.

Groundwater contamination containment, identification of waste sources, and landfill leachate collection and control are also key long-term remedial action measures for the Casmalia Site. These on-going efforts are occurring under a U. S. EPA lead multi-agency coordination effort involving the United States Fish and Wildlife Service, California Regional Water Quality Control Board, California Department of Toxic Substances Control, California Department of Fish and Game (collectively, "the State"), and County of Santa Barbara.

Waste is no longer accepted at the Casmalia Site. The site currently consists of the following features: (Attachment 4)

- a) Five hazardous waste landfills;
- b) Seven burial cells;
- c) Eleven injection wells;
- d) A groundwater treatment plant;
- e) A series of ponds to collect storm water runoff and groundwater treatment plant discharges;
- f) Various groundwater collection trenches;
- g) A leachate collection well and sump known as the Gallery Well;

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- h) Monitoring wells; and
- i) Water level piezometers.

In 1992, the U. S. EPA conducted an emergency response effort to stabilize deteriorating site conditions. One problem was high water levels in the RCF Pond and A-Series Pond (the two largest storm water ponds) (Attachment 4). These ponds are remnants of past surface impoundment excavation activities and are now used as default storm water runoff collection ponds. Prior to the winter of 1995/1996, the two ponds filled to near capacity and overflow was imminent. To mitigate the situation, the U. S. EPA began discharging storm water runoff to Casmalia Creek under the State Water Resources Control Board's General Permit for Industrial Storm Water Discharges. The discharge was not treated and monitoring indicated trace levels of chlorinated organic constituents and the presence of elevated minerals and salts in pond water discharged to Casmalia Creek. The discharge was a one-time event to manage an emergency situation resulting from high water levels in the storm water ponds.

Currently, short-term and long-term water management is needed for the on-site pond systems to ensure their structural integrity. To avoid future emergency situations where pond volumes approach capacity, the Regional Board adopted a National Pollutant Discharge Elimination System (NPDES) permit (Order No. 99-034) in November 1999, which allows for a controlled discharge that is treated to meet water quality standards protective of the beneficial uses for Casmalia Creek. The NPDES permit has not been used to date; however, it is an integral part of effective site water management.

The discharge location to Casmalia Creek is depicted on Attachments 2 and 5. Any discharge would be intermittent. Order No. 99-034 restricts the discharge to the minimum amount necessary to maintain capacity of the on-site ponds. The discharge is most likely expected during successive wet winter years with higher than average rainfall. Other circumstances may require a discharge for reasons other than high water levels such as de-watering to stabilize pond berms or to accommodate engineering up upgrades for future water storage.

**Status Update**

Key status update items include the following:

- Potential Listing on the Federal "Superfund" National Priorities List
- Upcoming Phases of Work
- Pond Capacities

**Potential Listing on the Federal "Superfund" National Priorities List**

U. S. EPA is considering placement of the Casmalia cleanup project on the Federal Superfund National Priorities List as part of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). If listed, the Casmalia Site would become what is commonly known as a "Superfund Site." The listing would allow U. S. EPA to access the Federal Superfund account to ensure investigation and cleanup work is completed in a timely and proper manner. Having access to the Superfund gives U. S. EPA the option of taking over operations at the site if cleanup work is not properly completed and/or if adequate funding is not secured from parties who disposed waste at the Casmalia Site. U. S. EPA feels this option will provide increased regulatory leverage at the site. According to U. S. EPA, based on historic information and environmental data collected over the last eight years, the Casmalia Site poses a significant threat to the environment and potential threat to human health if current conditions are not properly addressed.

As part of the Superfund listing process, U. S. EPA sent a letter to Governor Gray Davis in November 2000 requesting the State's position regarding the potential listing of the Casmalia Site. A decision from the Governor is pending.

The State's regulatory role would remain essentially the same for the various phases of work if U. S. EPA accesses the Federal Superfund. The site would initially continue as a Responsible Party lead site unless and until U. S. EPA decides to access the Federal Superfund for investigation, removal, and/or remedial actions. U. S. EPA can use the Superfund for investigation and removal actions with no up-front State approval/acceptance or State matching funds. If U. S. EPA desires to access Superfund for remedial actions, a commitment from the State in the form of a State Superfund Contract is required. The State Superfund Contract formalizes the State's commitment to pay 10 percent of Superfund financed remedial actions. Under this contract the State would also

assume lead agency and financial responsibility at the start of the post remedial action "Operations and Maintenance" component of work.

**Upcoming Phases of Work**

There are some significant phases of upcoming work for the Casmalia Site including construction of a cover over three of the four remaining landfills and implementation of a Remedial Investigation/Feasibility Study.

Construction of the cover is targeted to begin by late Spring 2001. The cover will be designed to help prevent infiltration of rainwater through wastes in the underlying landfills. The cover will be placed over the Metals Landfill, Caustic/Cyanide Landfill, and Acids Landfill. In addition to the landfills, the cover may extend over a common area near the base of the landfills (the "Central Drainage Area"). The extended cover would help prevent groundwater infiltration and reduce movement of landfill leachate in this area. The project should be completed by early Fall 2001.

The Remedial Investigation/Feasibility Study is a major component of work and a significant milestone for the Casmalia Site. It involves a comprehensive study of soil, sediment,

groundwater, and surface water to assess the nature and extent of contamination. The data from this study will then be used to evaluate remedial alternatives designed to contain and isolate wastes. Following the investigation and study, remedial actions will be selected and formalized in a "Record of Decision" document for the Casmalia Site.

To coordinate the upcoming work, U. S. EPA has been organizing a series of meetings including Federal, State, and local agencies, along with the CSC and their contractors, and other stakeholders such as Vandenberg Airforce Base and a Casmalia community technical assistance representative. Future meetings will focus on coordination of forthcoming work plans, design plans, and field oversight during construction. Additionally, a series of scoping sessions were planned for January and February 2001 to help guide the Remedial Investigation/Feasibility Study process.

**Pond Capacities**

Ponds have adequate capacities in preparation for this winter season. Given the volumes available to store runoff and groundwater infiltration, a discharge via the NPDES permit during this winter season appears unlikely.

For the past two years, State has encouraged U. S. EPA to direct the CSC to implement a more aggressive water management plan at the site. Ideally, the State would prefer on-site water treatment to meet the standards in the NPDES permit. The NPDES permit contains water quality standards protective of surface water and groundwater. Meeting these water quality standards would be compatible with short and long-term remedial goals for the Casmalia Site. On-site water management issues remain an area of on-going discussion between the State, U. S. EPA and the CSC.

Most recently, staff, in coordination with the Department of Toxic Substances Control, wrote a letter to U. S. EPA detailing the State's recommendations for both short and long-term water management at the Casmalia Site. The State has recommended a high level of on-site water treatment that would allow water uses for many applications such as irrigation over covered landfill areas and other areas of the site.

**Unocal Guadalupe Oil Field, San Luis Obispo County [Katie Anderson – 805/549-3690]**

**Summary** - The following is a status report of Unocal's Guadalupe oil field cleanup. This information was current on January 2, 2001.

Unocal has successfully completed the beach excavations. These sites include 5X east, A2A north, A2A sump, LeRoy 6 sump, 5X road oil layers, and A1/2X sump. All excavations were dug to clean soil, as verified by laboratory analyses.

Attachments 7 and 8 present the excavated sites and the remaining projects, respectively. According to the current schedule required by Cleanup or Abatement Order No. 98-38, the B12 plume would be the next excavation, beginning in April 2001. The final excavation would be N12, beginning in April 2003. However, at this time, lack of suitable soil

treatment and disposal capability necessitates a temporary halt to the excavation work. Unocal's original plan was to excavate diluent-degraded soil, treat it to reduce contaminant concentrations to acceptable levels, and then use it for backfill. However, it is still not clear what the acceptable concentrations should be or if the treatment process will be successful in reaching those concentrations.

To date, Unocal has excavated approximately 340,000 cubic yards of diluent-degraded soil and 32,000 cubic yards of sump material. The volumes generated by the remaining excavations will be approximately equal to these soil volumes, totaling 700,000 cubic yards of diluent-degraded soil. Currently, Unocal hauls all sump material to appropriate off-site disposal locations. Excavated diluent-degraded soil is stockpiled at the TB8 area.

Unocal has been backfilling excavations with clean overburden and clean fill borrowed from the Q4 area (see Attachment 6). Continuing on the current schedule with no disposal of degraded soil, the volume of untreated soil will grow to unmanageable amounts. The oversight agencies and Unocal agree that excavations should cease until appropriate treatment methods have been identified and a significant volume of suitable material exists to backfill remaining excavations. This would likely be at least until mid to late 2002.

Unocal is working on several fronts to study options for treatment and disposal:

Land Treatment: Unocal performed seven demonstration tests to determine the applicability of land treatment of diluent-degraded soil. These tests have just recently been completed and final data are expected in March 2001. The data will include information regarding the toxicity of the treated soil and its leachate. With this information, Unocal can apply for waste discharge requirements for a full-scale land treatment facility. As part of this effort, the Regional Board may need to establish standards for soil reuse.

Risk Assessment: Unocal has collected additional site characterization data to support ecological and human health risk assessments. The first draft of this risk assessment is expected in November 2001. Results of the risk assessment will help determine reuse locations and conditions, effectiveness of the 700 mg/kg excavation criterion for protection of ecological risk, and future site-wide cleanup priorities.

Environmental Impacts: Unocal has also preliminarily investigated options other than land treatment for excavated soils. One promising option is deep-well slurry injection. In this scenario, two or four deep wells would be drilled into the oil-bearing formation underlying the site. Degraded soils would be slurried and injected, as is currently done with wastewater. Excavations would then be backfilled with Q4 borrow material, eliminating questions regarding ecological risk from exposure to treated soils. However, this option requires 18 to 24 months for environmental review and permitting.

Unocal has demonstrated dramatic improvements in its excavation techniques and abilities. Once treatment and disposal problems have been resolved, Unocal will be able to quickly finish the remaining excavations required by the cleanup order. More details regarding scheduling of the remaining excavations will be forthcoming at future Board meetings.

Unocal Avila Beach, San Luis Obispo County  
[Roger Briggs 805/549-3140]

Staff has been following up from the last Regional Board meeting with Board approved mitigation projects, as well as closure letters for properties affected by the downtown cleanup project. We received a letter of gratitude (see Attachment 9) from Archie McClaren, who organized the Front Street Enhancement Project for Avila Beach. The Board heard and read about problems Avila was having due to lack of funding for upgrading part of the water supply system (a new tank and line). Since our last meeting, the Department of Fish and Game has provided funding through a combination of grant and no

interest loan, so Avila CSD is proceeding with the project.

We will continue working toward resolution of the Avila Tank Farm and will provide periodic status reports to the Board at key milestones. Staff is also continuing to coordinate with a multitude of agencies and Unocal regarding the subtidal or pier plume. We are participating in a press conference with the Department of Fish and Game, County Health, and Unocal on January 17th, on the Avila Pier, to advertise a public meeting regarding the "Avila Pier Hydrocarbon Occurrence Status Report to the Community" on February 7, 2001, at 7:00 PM in the Avila Civic Association Building at 191 San Miguel Street, Avila Beach.

Ballard Canyon/Chalk Hill Road Landfill, Santa Barbara County [Hector Hernandez – 805/542-4641]

The following status report was updated on January 2, 2001.

**Site Investigation/Cleanup Status:** On November 30, 2000, Santa Barbara County submitted a complete Final Site Assessment Report summarizing the results of the investigation activities performed during the last year and a half. The assessment report received Executive Officer approval on December 21, 2000.

In accordance with Cleanup and Abatement Order No. 99-12 concerning the landfill and State Board's Resolution 92-49, the County is now required to perform and submit a feasibility study for corrective action. To achieve compliance, the County has agreed to perform two separate feasibility studies for corrective action. One study is to evaluate landfill closure alternatives and the other will address groundwater cleanup.

According to an approved implementation schedule negotiated between the County and Regional Board staff, the County must submit a feasibility study for corrective action addressing closure alternatives by March 20,

2001. The closure study must evaluate the feasibility of preventing, controlling or minimizing leachate production and impacts to underlying groundwater. The study must evaluate and compare the feasibility of implementing various closure alternatives, including a final cover system, complete or partial clean closure (removing the waste) and the no-action alternative.

The County is also required to construct and begin operating an interim gas recovery system by April 1, 2001. The gas extraction system is intended to eliminate or greatly decrease the migration of landfill gases to the atmosphere and underlying groundwater.

The County plans to evaluate the effectiveness of the gas extraction system for a full year prior to studying the feasibility of the various alternatives for groundwater corrective action. Thus, assuming the gas system begins operating by April 1, 2001, the County must submit a feasibility study report addressing groundwater pollution and gas migration alternatives by April 1, 2002.

**Site Preparation for the Winter:** The County successfully completed its winter preparedness activities by a November 30, 2000 deadline. The County trucked in soil material and filled all low spots and graded the landfill site. All disturbed areas have been hydro-seeded to promote vegetation and minimize erosion of imported soils. These actions will help minimize water infiltration and the creation of leachate.

**Air Quality Issues and Outside Agency Support:** On November 17, 2000, staff approved the County's proposed landfill gas (LFG) monitoring plan. The County prepared the plan in response to requirements of the Regional Board, Integrated Waste Management Board (Waste Board) and the County Public Health Department (PHD) for a comprehensive monitoring plan to monitor the landfill gas around the former landfill. The approved gas monitoring plan includes provisions to monitor structures in the landfill vicinity and a proposal to monitor the landfill gas monitoring probes installed around the

landfill's perimeter. Installation of the LFG monitoring probes is scheduled to commence during the second week in January 2001, and barring weather delays, should be completed within one week.

Regional Board staff intends to work closely with PHD, Waste Board, and County staff to revise the Landfill's existing monitoring and reporting program to reflect all existing monitoring points (groundwater and gas) and include a specific monitoring and reporting protocol. Staff intends to complete all revisions and establish an effective groundwater and gas-monitoring and reporting program by early February 2001.

**Off-Site Pumping:** In response to a Regional Board directive, the County continues to study off-site groundwater pumping in the immediate landfill vicinity. A complete summary of the evaluation results must be submitted to the Regional Board by April 30, 2001.

**Larner Domestic/Irrigation Well:** In accordance with a Regional Board directive to control migration of volatile organic compounds in ground water towards the Larner well, the County provided a detailed plan to achieve full compliance with the Regional Board directive on November 9, 2000. The County plans to supplement a recently installed replacement water supply well (Larner #2 well) with a "pump & treat" system using an air stripper. The County is confident that the pump & treat system will be on-line prior to June 2001, to meet Mr. Larner's immediate needs until a permanent system can be constructed. In the interim, Regional Board staff has advised Mr. Larner and his attorney to maximize the use of the replacement well and only pump the original Larner well if and when absolutely necessary. Once the County provides Mr. Larner with sufficient water supply, Regional Board staff intends to direct Mr. Larner to cease pumping his original well.

The County's proposed long-term alternative is the installation of a production well on private property (Peterson property). The County believes that the Peterson Well is a viable option to provide a long-term source of water for both domestic and agricultural use to not only Mr. Larner, but to all the other properties whose wells have been affected by the landfill. According to the County's proposed implementation schedule for long-term alternative water supply, operation of the Peterson Well is expected by spring 2003.

**Information Directive and Request for Written Certification:** In consideration of the County's compliance efforts, project progress, cooperation and good working relationship with the Regional Board and other outside agencies involved on this project, staff believes the Regional Board's information directive and request for written certification from the County Administrator stating that compliance with the information directive has been achieved are no longer necessary. Thus, the information directive and request for written certification, issued pursuant to Section 13267 of the California Water Code and the Public Records Act, Government Code section 6250 et., seq., and as described in Regional Board correspondences dated, October 14, 1999, December 17, 1999, and November 1, 1999, have been formally rescinded.

**Outstanding Litigation:** Litigation continues between several property owners near the landfill site and the County of Santa Barbara. Three separate lawsuits filed against the County remain unresolved and include the following parties: (1) Several home owners, represented by Mr. Richard Kravetz; (2) Mr. Stevan Larner, represented by Mr. John Dorwin; and (3) Mr./Mrs. Raymond Dries, represented by Mr. Jack Collison.

See Attachments 10 and 11.

Underground Tanks Summary Report dated January 3, 2001 [Jay Cano 805/549-3699]

See Attachment 12.

### **Regionwide Reports**

#### Regional Monitoring [Karen Worcester 805/549-3333]

The Central Coast Ambient Monitoring Program has launched its South Coast rotation area watershed sampling program. The site selection process has included several site visits, meetings, and collaboration with Santa Barbara County, City, military, and State Parks monitoring staff. Over thirty surface water sites in the Santa Ynez, San Antonio and Santa Barbara County watersheds are being sampled. Sampling in the Santa Maria watershed is drawing to a close, although we will continue through February in hopes of obtaining additional wet weather data. As of January 1, only 17 of our thirty Santa Maria sites have water present.

Two new students have been hired to aid in our expanded monitoring effort. Dan Berman will be student lead for monitoring coastal confluences, scheduled to begin in the next month. Sarah Spurr is working on collecting and organizing data from a variety of outside sources for incorporation into our master database. One more student position, yet to be hired, will complete the field team. We have recently conducted interviews for two Basin Planning positions to be added to the Monitoring and Basin Planning Unit. Howard Kolb has accepted a job as the Basin Planner for surface water. We have yet to fill the Basin Planning position for ground water. The Field Coordinator position has been offered to Mary Adams. New staff will enable us to develop a program which will much more tightly integrated monitoring data results with permit decision-making, development of water quality objectives, and other management activities.

Technical information for incorporation into the 2001–2004 laboratory contract has been completed and circulated to staff for review and comment. The existing laboratory contract amendment is nearing completion, which will alleviate our current lab budget concerns.

We have reached a new plateau in development of our data management structure. Our software now will generate web pages using ArcView and our Excel-based water quality database to generate graphs, charts, and maps of water quality data for any available parameters at various levels of watershed detail. We have met with State Board staff in the Office of Information Technology to discuss how our software might be adapted to serve as a “front end” for SWIM II, the data storage and management system being developed for statewide use

#### Proposition 13 Funding Update [Alison Jones 805/542-4646]

Staff held two Proposition 13 workshops on December 13 and December 20 at the Regional Board offices in San Luis Obispo. A total of 76 people attended the two workshops. A third workshop will be offered January 5 in Capitola. Staff also has been giving presentations to small groups upon request. Response to the workshops has been very positive. Based on conversations with potential project proponents, Staff anticipates that a large number of proposals for the first round of funding will be submitted by the February 1, 2001 deadline. The next Request for Proposals will be released in May or June of 2001.

A workshop on Proposition 13 will be given March 22, 2001, prior to the March 23 Board meeting in Salinas. The purpose of the workshop will be to provide information on Proposition 13 funding opportunities and to solicit public input on Region 3 priorities for future Requests for Proposals.

### **Administrative Reports**

#### Regional Board Meeting Location Change [Roger Briggs 805/549-3140]

The Salinas City Hall can seat more people in the audience, and has more room for staff and the Board than the Seaside City Council Chambers. The Seaside Chambers are geared



toward five council members. As we may have more Board Members in September for our second "north" meeting of the year, we should move the meeting location to Salinas. Unless the Board directs otherwise, I will change our meeting location for the September 14, 2001 meeting to Salinas.

Senior Engineer Jay Cano made a presentation to the San Luis Obispo Water Resources Advisory Committee regarding the state of MTBE sites in San Luis Obispo County. The Committee provides recommendations to the San Luis Obispo Board of Supervisors on issues of water resources. The committee is comprised of representatives from each city and supervisorial district, the community services districts, larger water purveyors, agriculture, and environmental interests.

## **STAFF RECOGNITION**

## **ATTACHMENTS**

1. Ltr from City of Pacific Grove dtd 12/14/00
2. Casmalia Site Location Map
3. Casmalia Historic Waste Disposal Map
4. Casmalia Site Configuration Map
5. Casmalia Current Site Features Map
6. Unocal Guadalupe Site Location Map
7. Unocal Guadalupe Completed Excavations
8. Unocal Guadalupe Remaining Excavations
9. Unocal Avila Beach – Ltr from Archie McLaren dtd 1/1/01
10. Ballard Canyon Site Location Map
11. Ballard Canyon Well Location Map
12. Underground Tanks Summary Report