Lahontan Regional Water Quality Control Board



November 2009 - December 2009

NORTH BASIN

1. Caltrans Project Funding for Lake Tahoe Basin - Bud Amorfini

On September 25, 2009, staff and I attended a meeting at the Caltrans Headquarters (Caltrans HQ) to discuss the funding status of the various water quality improvement projects planned for the Lake Tahoe Basin. The meeting was also attended by members of Caltrans District 3, Tahoe Regional Planning Agency, Tahoe Transportation District, and California Tahoe Conservancy. Caltrans water quality projects are funded under the State Highway Operation and Protection Program (SHOPP) and we had previously received information that the funding of certain projects may be pulled or delayed due to dwindling funds in the SHOPP

Fourteen road segments on the California side of the lake are slated to be retrofitted to meet the requirements of the Caltrans statewide NPDES permit. Three of these projects are currently in construction and eleven others remain to be implemented (currently in planning and design stages). Of the 11 remaining projects, nine are funded in the amount of approximately \$266 million. Two projects along the west shore and a potential joint Caltrans/City of South Lake Tahoe pump and treat system on Highway 50 (at Bijou Center) do not have secured funding. The cost of these three projects is estimated to be \$30.6 million.

Based on updated cost estimates and design revisions associated with the NEAT study (natural environment as treatment), it is now estimated that all 11 remaining road segments (including the Bijou pump and treat system) could be constructed for approximately \$185 million (a savings of approximately \$112 million over that previously estimated). However, it is Caltrans policy that all savings from individual projects be returned to the statewide SHOPP to address priority public safety projects.

The meeting participants submitted a proposal to Caltrans HQ to use approximately \$29.3 million of the total savings to implement projects at the three identified sites that are not currently funded. It was agreed that \$4.7 million in savings can be used to fund the joint Caltrans/City pump and treat project on Highway 50 in the Bijou area. A determination on funding the two other projects on Highway 89 was not made at the time of the meeting and we are awaiting a decision on this request.

2. South Tahoe Public Utility District
Plans to Replace Emergency Retention
Basin - Rob Tucker

The South Tahoe Public Utility District (District) operates the wastewater treatment plant (Facility) that treats all the

wastewater for the entire South Lake Tahoe area (California side). The District's Facility can treat up to 7.7 million gallons a day. After treating the wastewater, the District pumps the treated effluent out of the Lake Tahoe Basin for storage and reuse at several ranches in Alpine County. As a temporary backup to the pumping system (during extended power failures), the District has two emergency retention basins (ERB) lined with high density polyethylene that can hold roughly 20 million gallons each. The basins were installed in the 1980's in response to Water Board requirements to abate wastewater spills.

Summer 2009 inspections by Water Board staff revealed that the aging ERB liners need major repairs, and that District ERB inspection reports were not being provided as required. I discussed this matter with District personnel and learned the ERB liner replacement was being planned. I issued the District a Notice of Violation and ordered a report on how the District facilities and wastewater would be managed to prevent spills during the replacement. The District responded by providing missing reports, repairing the existing liner, and providing detailed plans to avoid spills while replacing the ERB liners (by the fall of 2011). The District will also develop and provide a construction quality assurance plan for the installation of a new liner by August 2010.

3. Wonders of Water Educational Program - Cindy Wise

Staff, as members of the South Tahoe Environmental Education Coalition (STEEC), recently helped develop curriculum for kindergarten through fifthgrade students on the Wonders of Water (WOW). The WOW program provides grade-level specific, hands-on, interdisciplinary activities to educate children on the importance of water. The

program focuses on meeting state education content standards, while providing interactive learning experiences in watershed health, water conservation, fish life cycles, food webs, water cycles, pollution prevention and water quality. Over a two-week period in October, STEEC members and trained volunteers presented the WOW educational program to all four Lake Tahoe Unified elementary schools (81 elementary school teachers and more than 1,850 students.) Teachers and students were able to meet professionals working in the water field and begin exploring the broad range of water-related environmental work in the Tahoe Basin.

4. Sierra Summit on Integrated Regional Water Management (IRWM) - Cindy Wise

Regional and State Water Board staff participated as panel speakers at the October 16 Sierra IRWM Summit: Integrating Water Management in the Sierra. The Summit, sponsored by the Sierra Nevada Alliance, Ecosystems Sciences Foundation and the CA Sierra Nevada Conservancy, provided a forum for Sierra IRWM stakeholders to discuss lessons learned from planning and implementation of IRWM plans, issues facing water management in the Sierra, finding sustainable funding for IRWM efforts and next steps for the Sierra IRWM.

Over the past five years across the Sierra, diverse groups of stakeholders created IRWM plans to ensure reliable water supply, protect water quality and restore Sierra waters. IRWM plans, while in various stages of pre-planning, planning and implementation, now cover nearly the entire Sierra region. The Summit included the opportunity for these IRWM groups to share past successes and discuss strategies to build capacity and support

for Sierra IRWM in the face of the state budget crisis, state bond freeze and economic downturn.

5. Status of Wetland Restoration Efforts in Mono County - Cindy Wise

In 1997, the Board asked its Executive Officer for an annual progress report on mitigation for loss of wetlands from the construction of single-family homes in Mono County. Staff reported that between 1997 and 1999, the estimated amount of wetland impacts from construction of single-family homes (approximately 1.65 acres from construction of 24 homes) was offset by wetland restoration activities in that same two year timeframe. Between 1999 and 2008, 70 building permits for single-family homes were issued with 29 for parcels with wetlands. Due to building pad placement to avoid the wetland sites and other County requirements such as 30 foot setback from streams, impacts to wetlands occurred on only three of the 29 parcels with a combined wetland disturbance of one-half acre. Wetland restoration and conservation activities in the County during this same period (from 1999 to 2008) have been numerous and offset the one-half acre of wetland impacts from the construction of singlefamily homes. Three and one-half acres of wetlands were created during this nine year period and over 400 acres of wetlands were acquired by non-profit organizations which will provide opportunities for enhancement. During the past year, Mono County has issued fewer than 10 single family home building permits, and fewer than ten manufactured home permits; none of which are within wetlands.

6. **US Forest Service Travel Management**– Taylor Farnum

In 2003, the Forest Service in California outlined a strategy for establishing a sustainable system of designated routes for motor vehicle use, known as Route Designation. Route Designation is part of the Forest Service Travel Management process and will result in the publication of a Motor Vehicle Use Map (MVUM) that identifies the roads, trails and areas open to public motor vehicle use on every national forest. Unmanaged motor vehicle use has resulted in unauthorized roads and trails that cause erosion. watershed and habitat degradation, and impacts to cultural resource sites. A majority of the national forests in California are preparing Environmental Impact Statements to analyze the prohibition of cross-country travel by motor vehicles and designation of authorized routes for the National Forest Transportation System.

Water Board staff have been reviewing all Travel Management plans beginning at a scoping level and continuing though review of both the Draft EIS and Final EIS for the forests located in the Lahontan Region. The Lake Tahoe Basin Management Unit has a current MVUM and the San Bernardino NF has a draft MVUM. The Inyo NF has completed its Final EIS and is currently in a 45-day review period. The Bridgeport Ranger District of the Humboldt-Toiyabe National Forest, and the Lassen, Modoc, and Tahoe National Forests have all completed the formal 45-day comment period on their Draft EISs and are developing the Final EISs. Water Board staff also participated in a conference call in early October organized by Region 5 of the US Forest Service to discuss the current status of the Travel Management Plans for each forest and provide an opportunity for questions concerning the environmental review process.

7 Tahoe Basin Fall Storm Inspections – Robert Larsen

A fall storm dropped approximately 3.5 inches of rain to the Lake Tahoe basin on October 13, 2009. During the storm, Water Board staff inspected temporary Best Management Practices at several active construction sites to evaluate compliance with construction stormwater permit requirements.

The Placer County Department of Public Works initiated the Lake Forest Area B Stream Restoration project in Tahoe City to restore historically disturbed portions of Lake Forest Creek. Prior to the storm, the construction contractor had stabilized all active excavations, covered bare soils and spoil piles with plastic sheeting, installed coir logs around disturbed areas, and placed additional filter fabric fence to slow flow in temporary channels. The contractor used additional dewatering pumps to remove water from active construction areas to prevent turbid discharges. Contractor staff visually monitored the project during the storm to determine if additional stabilization measures were needed. Water Board staff noted no violations of construction permit requirements.

The City of South Lake Tahoe's Al Tahoe Phase 1 Erosion Control Project had been stabilized with mulch and temporary best management practices were in place and functioning as designed.

At the Sierra Tract Phase 1b Erosion Control Project (also a City of South Lake Tahoe Project), construction was behind schedule and many areas had not been adequately stabilized. However, the contractor had taken measures to ensure all runoff from the construction site discharged to newly constructed treatment basins. Despite the amount of unstable soil and turbid runoff entering the

treatment basins, there was no off-site discharge during the heavy rain event.

Staff contacted project proponents a week before the storm to make sure they were aware of the weather forecast. The three inspections noted above demonstrate how responsible construction contractors can take appropriate measures to prevent offsite discharges, even during heavy rain events.

8. Pre-winter Inspections of Caltrans Construction Projects - Bud Amorfini

During the 2009 construction season, Caltrans constructed three water quality improvement projects in the Lake Tahoe and Truckee watersheds: Highway 28 from Tahoe City to Kings Beach, Highway 267 from Stewart Way to the junction with Highway 28, and Highway 89 from Tahoe City to Squaw Valley Road. Permit requirements include preparing sites to withstand erosion from winter-type weather during periods when construction activity is postponed or limited (October 15-May 1). Inspections were conducted jointly with Tahoe Regional Planning Agency (TRPA) staff on October 13, 2009, with results summarized as follows:

- Highway 28 Overall the site was adequately stabilized from erosion except for the main equipment/material staging area, which needed additional cleaning of residual sediment left on pavement and covering of stored pressure treated lumber to prevent toxic chemical leaching.
- Highway 267 The construction site was adequately stabilized. However, TRPA staff expressed concerns with erosion on unpaved road shoulders. Caltrans staff indicated that the shoulders were disturbed prior to the project and that any materials used to

cover or protect these areas from erosion would be destroyed by snow plows during snow removal activities. This issue highlights the need for coordinated project review and will be resolved during the next Water Board/Caltrans/TRPA coordination meeting.

 Highway 89 - The site was stabilized adequately and no issues were noted.

On October 15, 2009, staff conducted field reviews for a water quality project on Highway 89 from the Alpine County boundary with El Dorado County to the junction at Highway 50 in Meyers. Staff also reviewed the winterization status of two industrial facilities, a concrete batch plant and a rock crushing facility, on Interstate 80 near Truckee. The two industrial facilities are operated by a contractor and separate permittee, R&L Brosamer, in support of the Caltrans Interstate 80 rehabilitation project. Results are summarized as follows:

- Highway 89 The site was adequately stabilized and no issues were noted.
- I-80 Concrete Batch Plant The permittee/contractor was in the process of winterizing the site, but winterization was incomplete. Staff returned to the site on October 21, 2009, and found that the site was not winterized to prevent and control erosion of residual wastes left at the facility site. The conditions were in violation of the industrial permit and a Notice of Violation was issued to the contractor.
 - I-80 Rock Crushing Facility The site
 was mostly stabilized except for a
 small portion on the east end of the
 facility. The permittee/contractor
 indicated that the site grading would
 be finished and stabilized from erosion

with fiber mulch that day (October 15). Staff returned to the site on October 21, 2009, and observed that the contractor was excavating material and loading it into trucks. The site was significantly destabilized in violation of the industrial permit and a Notice of Violation was issued to the contractor.

9. Post Winterization Inspections of South Tahoe High School and Northstar Mountain Properties Projects - Dale Payne

On October 14 and October 29, 2009, Water Board staff inspected the South Tahoe High School expansion project. This project includes tree removal, removal of existing building structures, excavation and grading, and construction of two new buildings. Permit requirements for this project include winterization to prepare the site to withstand precipitation events that could potentially cause soil erosion and subsequent water quality impacts during the period of October 15 through May 1. All activities except construction of new buildings have been completed. Areas of the site that were excavated and graded were winterized prior to October 14, 2009. Areas of continued building construction were paved. Building construction of the two new structures will continue throughout the winter in paved areas. On October 14 and 29, 2009, erosion control measures were noted to be in place and no threats to water quality were observed.

Also, in the first week of November, Water Board staff inspected three Northstar Mountain Properties/East West Partners projects and observed no violations. Sites were properly winterized and posed no threat to water quality. Construction permits will be terminated upon receipt of final reports.

10. Overview of Fluvial Geomorphology

- Richard Booth and Linda Stone

In September 2009, Lahontan Water Board staff attended a one-day overview of fluvial geomorphology presented by UC Davis research scientist Dr. Joan Florsheim, sponsored by the UC Davis Extension. Fluvial geomorphology is the study of how stream and river processes affect the watershed landform. Fluvial geomorphologic processes are iterative – as the stream changes the watershed landform, the changes to the landform affect the stream flow structure. The primary water quality concern for geomorphologic changes is sediment loading in the rivers and streams.

Examples were presented of primary fluvial process such as flow (velocity and volume), flooding, sediment transport, and erosion. The results of one of Dr. Florsheim's studies showed that, in a typical stream, most of the sediment transport occurs in the one- to three-year storm events rather than in the major, but less frequent, storm events. These results run counter to other study results. Historically, streams have been managed to control floods from the 100-year storm, for example. But as we manage streams for their sediment transport capabilities, we must examine the effects of the smaller, more frequent flows as well.

The overview included examples of anthropogenic disturbances such as dams, grazing, agriculture, logging, historic hydraulic mining, gravel mining, and channelization from urban development. Examples were presented of each category, including the destructive consequences of such disturbances and some restoration attempts. Restoration is often difficult, especially if development has been built up to the stream bank, limiting restoration options.

Fluvial geomorphologic restoration is a relatively new science, and monitoring the effects of restoration must be emphasized, especially for large restoration projects such as intentional levee breaks and dam removals. Restoration funding often pays for the project, but not the subsequent monitoring, which is a problem that must be overcome.

11. **Markleeville Creek Day -** Kerensa Kruse

The Alpine Watershed Group hosted about 100 local residents at the eighth annual Markleeville Creek Day in Markleeville, California on Saturday, September 26, 2009. Volunteers assisted in a Stream Clean-Up Project on Markleeville Creek as part of the Great Sierra River Clean-Up, sponsored by the Sierra Nevada Conservancy. Water Board staff member and Alpine Watershed Group member Hannah Schembri performed a key role in planning the event.

Participants enjoyed the sunny autumn weather and live bluegrass music while learning about the local watershed and participating in fun activities. Water Board staff Linda Stone and Kerensa Kruse hosted a hands-on educational booth for the children at the event. Staff demonstrated a 3-D watershed model simulating the water cycle, non-point source pollution, and pollution prevention techniques. Children received a tangible opportunity to understand these processes and were allowed to get their feet (and hands) wet! The event also taught kids about the pathway of a water molecule using a bracelet with beads representing different stages in the water cycle.

The Alpine Watershed Group works to preserve Alpine County's watersheds for

generations to come. Through many programs and partnerships, the Alpine Watershed Group works to protect the headwaters of the Carson, Mokelumne, Stanislaus, Upper Truckee, and the American rivers - providing clean water to western Nevada and California's eastern Sierra and Central Valley. The Markleeville community is supportive and active in this group, with 18 dedicated volunteer monitors who evaluate the water quality in the Carson River watershed on a quarterly basis. For more information on the Alpine Watershed Group, contact Sarah Green at watershed@alpinecountyca.com.

12. **Leviathan Mine Activities** – Doug Carey and Chein Kao

The 2009 summer field season at the Leviathan Mine site is coming to a close. The Water Board's 2009 pond water treatment operation commenced in the last week of July and concluded the first week of September. DECON Environmental, Inc., the Water Board's current pond water treatment contractor, successfully treated and discharged approximately 2.9 million gallons of acid mine drainage contained in the pond system. The pond system was essentially dry at the conclusion of treatment efforts, resulting in maximum storage capacity for the coming winter season. Preliminary laboratory results indicate that samples collected from the effluent met all US **Environmental Protection Agency** (USEPA) discharge requirements.

Health and safety improvements to the pond water treatment plant were made in late September and additional required health and safety improvements are planned to be done in conjunction with next year's treatment plant assembly.

Two members of the Leviathan Mine Unit attended a two-and-a-half day technology

training workshop entitled "Native Revegetation: The Sustainable Erosion Control BMP" in Kings Beach in mid-October. This training will assist Water Board staff when evaluating future revegetation work plans and reports for the site.

Water Board and Department of General Services staff met on site in late October for an initial scoping meeting for road pavement and associated surface drainage improvements on select portions of the site. We expect a contract for such work may be implemented in summer or fall of 2010.

Under USEPA's Unilateral Administrative Order, Atlantic Richfield Company is conducting a Remedial Investigation/Feasibility Study (RI/FS) for the site. To date, ARCO has submitted a Focused Feasibility Study (FFS) Work Plan, two Focused Remedial Investigation (FRI) Work Plans, and a Program Work Plan (PWP). Staff have reviewed and submitted comments on plans. The PWP is supposed to be an overarching document that evaluates and summarizes all past investigations, provides RI/FS approaches, and identifies data gaps requiring further investigation. Staff's review of the PWP has resulted in substantial comments seeking clarifications, revisions, and supplements.

13. Sierra Chevron Station, Lassen County - Lisa Dernbach

Controlling a migrating plume in groundwater is often an iterative process. Typically, a pilot test is completed, and the results are used to design a final cleanup action. After the cleanup action is installed, it is operated and evaluated to determine if remediation is working as designed. If not, enhancements are made to ensure the cleanup action achieves plume containment.

Such was the scenario in September when I issued a cleanup and abatement order to the responsible parties for the Sierra Chevron Gas Station in Susanville. A dual phase extraction system had been installed at the site in 2008 to control plume migration of gasoline constituents in groundwater. The method involves: extracting contaminated groundwater and soil vapor from the subsurface. In addition, a line of microsparge wells installed just before the Susan River was intended to remediate methyl tertiary-butyl ether (MTBE). Oxygen from dedicated canisters at each well is injected to groundwater to act as a curtain that volatilizes hydrocarbons that pass through.

Despite operation of these systems, monitoring reports showed that gasoline constituents are still being detected downgradient of the gas station and MTBE was still threatening the beneficial uses of the Susan River. According to the Third Quarter 2009 Monitoring Report, 120 micrograms per liter MTBE was detected in a monitoring well adjacent to the river. The primary drinking water standard for MTBE is 5 micrograms per liter.

The cleanup and abatement order names Betty Sherman, the former operator and owner, as a primary responsible party for cleanup of unauthorized releases at the site. The Order also names four other persons and entities as secondary responsible parties. The Order requires all the parties to submit a corrective action plan to improve the remediation system operation so as to achieve full plume containment. The Order also requires submittal of quarterly monitoring and remediation status reports.

In compliance with the Order, the responsible parties submitted a corrective

action plan for expanding the remediation system. Two dual phase extraction wells will be added at off-site locations to better contain plume migration, and two additional microsparge wells will be installed to prevent MTBE from reaching the Susan River. Board staff plans to accept the corrective action plan, which should be operational in early-spring 2010

14. Angora Hazard Tree Removal Project Violations - Douglas Cushman

This fall of 2009, the US Forest Service – Lake Tahoe Basin Management Unit (LTBMU) began a hazard tree removal project in the Angora Fire burn area. The project included disturbing large areas of soils on unpaved roads, cleared landings to pile logs, and several temporary stream crossings. The LTBMU was operating the project under the Lahontan Water Board's Timber Waiver and the LTBMU had prepared an environmental document describing the best management practices (BMPs) for all the temporary impacts.

Meteorologists forecast a significant rain event for October 13, 2009, so staff inspected the hazard tree removal project areas on October 12, 2009. Staff observed that few temporary BMPs were installed and noted that many disturbed areas were unprotected and could be affected by the predicted rain event.

During heavy rain on October 13, 2009 staff photographed sediment-laden water discharging into Angora Creek from disturbed soils on project roads and landings. No waterbars or other stormwater control measures were installed to prevent the sediment discharge.

Following the storm, staff noted that many unpaved roads and landings showed rills and gullies leading directly into Angora Creek tributaries. This was additional evidence that the rain event caused significant erosion on roads and landings because the required BMPs were not in place prior to the storm.

Since required BMPs were not installed and sediment was discharged to surface waters, staff issued a Notice of Violation (NOV) on October 19, 2009, to the LTBMU. The NOV required the LTBMU to take immediate actions to stabilize disturbed areas, decommission roads, trails, and remove temporary stream crossings.

The LTBMU submitted a report on October 30, 2009, as required by the NOV, describing actions taken to winterize the project area. To check compliance progress with the NOV, staff inspected the project several times in November and worked directly with LTBMU staff to ensure all appropriate measures were completed to stabilize disturbed areas. On November 19, 2009, staff verified that the LTBMU satisfactorily completed all required elements of the NOV and the project areas were sufficiently stabilized with proper BMPs.

SOUTH BASIN

15. **Dairy Well Sampling -** Ghasem Pour-Ghasemi

Dairy operations generate a large volume of solid and liquid waste that is discharged on-site over a relatively small land area. These operations have the potential to adversely affect local groundwater. Within the Lahontan Region there are 12 active dairies, five of which are regulated under waste discharge requirements. Based on data from monitoring conducted by the dairy operators and some limited groundwater sampling conducted by Water Board staff, we were aware that groundwater under five of these dairies was polluted. However, this information did not allow us to conclude whether groundwater being used as a domestic water source was affected since most of the data were from monitoring wells. Monitoring wells draw water from the first groundwater encountered below the ground surface which is not always the same zone that is tapped by domestic wells. Additionally, a number of dairies are not currently required to collect and report groundwater data so we could not we were unaware of potential problems at these dairies.

Water Board staff sampled production wells at five dairies, three of which had groundwater problems based on monitoring well data and two of which had no groundwater data. This effort was intended to assess groundwater quality in the vicinity of dairies not required to submit groundwater data and to determine if domestic wells at the dairies were effected. These production wells are used for dairy operations and, in many cases, domestic supply. Each dairy owner has been advised by letter of the results of this sampling effort.

Based on the results of this Water Board staff sampling and the prior data, we have confirmed that groundwater beneath only five of 11 active dairies is polluted with constituents that originate from dairy operations. Groundwater at six dairies is not polluted and we still do not have groundwater data at one dairy because we were unable to obtain permission to sample at this location. Additionally, we can also state that the groundwater zone tapped by these production wells is not affected at the two dairies where we did not have prior groundwater data. Water Board staff intend to expand sampling to include domestic wells that are within a half mile down gradient of dairies with known groundwater pollution. Additionally, we intend to present a comprehensive dairy regulatory strategy addressing permitting, monitoring and groundwater cleanup to the Water Board in March 2010 after discussing our proposals with the dairy operators at informal meetings.

16. Fire & Rain, Post-Fire Response and Remediation – Jan Zimmerman

Water Board staff attended a post-fire planning and remediation training workshop in October 2009. The workshop was sponsored by San Bernardino County, Department of Public Works. The purpose of the workshop was to provide an overview of the post-fire hazards that may develop following rain events, particularly downstream flooding and increased erosion and sediment yield, and to discuss the various erosion- and sediment-control techniques available to mitigate those hazards. Because flooding and accelerated erosion can threaten life, property, infrastructure and water quality, post-fire response requires quick and accurate identification of post-fire hazards, slope stabilization, and implementation of

appropriate stream channel erosion and sediment control measures. The workshop allowed Water Board staff the opportunity to meet and discuss with County staff responsible for implementing post-fire response and address our concerns regarding the potential for post-fire water quality impacts.

As the wildland-urban interface encroaches into the foothills and forests of our region's mountainous areas, the potential for wildfire-related water quality impacts is a real concern. The first rainfall to hit a burned area would, depending upon the intensity of the burn, be expected to produce alkaline to very alkaline runoff that could be detrimental to aquatic organisms. For example, white ash (the most completely combusted ash) and ash from burned residences can produce highly alkaline, caustic leachates. Turbidity can also increase in surface waters following rain events in burned areas due to less vegetative cover. On average, first-year, post-fire watershed sediment yield is 35 times greater than during pre-fire conditions. By implementing stream channel erosion and sediment control measures to stabilize the soil in place, reduce runoff, and promote infiltration, many of these water quality impacts can be lessened. Water Board staff will continue to work closely with other agency staff in areas affected by wildfires to ensure that post-fire response and remediation plans mitigate for potential post-fire water quality impacts.

17. Morning Star Mine, Cleanup and Abatement Order – Update - Christy Hunter

The Morning Star Mine is an inactive open pit gold mine with related waste rock dumps, heap leach pads, and a pond located on the eastern slope of the Ivanpah Mountains, San Bernardino County, in the Mojave National Preserve (National Park Service, about 8 miles south of Mountain Pass and Interstate 15. The heap leach pads and solution pond at the mine site are on unpatented lode mining claims currently held by Vanderbilt Gold Corporation (Vanderbilt). Vanderbilt and the National Park Service are both named as Dischargers in existing Waste Discharge Requirements (WDRs) revised in 1989. The Facility has been inactive and heap leaching has not occurred since the spring of 1994. Waste discharges at the facility primarily included solid and liquid mine waste discharged to two lined, heap leach pads, where gold ore was leached with cyanide solution; and a lined cyanide solution pond.

The National Park Service is working to develop a detoxification workplan for the two heaps and pond for Water Board approval, which should be completed by the end of 2009. In October 2009, in preparation of this workplan and on behalf of the National Park Service. representatives from CH2MHILL, Arrakis Inc., and Mojave Possalan & Aggregate met with Water Board staff. The objective of the meeting was to present their conceptual detoxification plan and, in turn, receive recommendations from the Water Board staff. As proposed, detoxification of the heaps would use a known, ex-situ remediation technology involving chlorine dioxide and an onsite closed-water recycling system. In addition to cleanup of mining wastes, another end result from this remediation would be a commercial cement extender product called pozzalan.

Project representatives explained that any potentially hazardous metals produced from this remediation would be shipped to licensed off-site facilities in Nevada. All processing facilities would be pre-

constructed and hauled to the site and would have secondary containment. The time frame for processing the estimated 2.5 million tons of material is about eight years and remediation could potentially begin by 2010.

18. Hometown America, Los Ranchos Mobile Home Park – John Morales

The Los Ranchos Mobile Home Park (Park) is a community located in the Town of Apple Valley. The Park has two package wastewater treatment plants to treat domestic wastewater from the residents of the Park. Foul odors emanating from the treatment plants have been the subject of complaints from residents of the Park.

Offensive odors are caused by gases produced from the uncontrolled decomposition of organic matter, especially when this occurs in an anaerobic environment. Inadequate oxidation in the treatment process causes the microorganisms to feed on the oxygen present in naturally occurring compounds such that these compounds convert to hydrogen sulfide gases.

In September 2009, I issued Hometown America (owners of the mobile home park) a Cleanup and Abatement Order which requires that it: (1) initiate daily sampling for odors, (2) perform a week of water quality sampling, (3) submit weekly technical reports and (4) develop and implement an Odor Abatement Plan and a maintenance schedule of its wastewater treatment plant.

Water Board staff received the Odor Abatement Plan on November 9, 2009. This report was due by October 19, 2009. The Odor Abatement Plan identifies specific actions and plant modifications required to reduce and control odor production from the wastewater treatment plant.

In November, Hometown America began adding a bio-stimulant/odor control compound to the plant head-works. The bio-stimulant appears to have had the desired odor reduction according to residents of the mobile home park. There have been fewer complaints from the residents.

Beginning in December 2009, Hometown America will install four grinder type pumps in the equalization basin of the treatment plant to prevent the return activated sludge lines from clogging.

Staff will continue to conduct follow-up inspections to verify that violations do not occur.

19. Searles Valley Minerals, Compliance Status (May 1, 2009 – October 30, 2009) – Omar Pacheco

Compliance Status

Effluent monitoring data from the Trona, Argus, and Westend facilities has shown compliance with the waste discharge requirements throughout the reporting period for all three facilities.

Spill Events

Searles Valley Minerals (SVM) did not experience any spills at any of the three facilities during this reporting period. Good housekeeping practices and conscious operations effectively eliminated spills during this period.

Interagency Inspection

In response to a complaint filed by a former employee of SVM, DTSC as lead agency with the assistance of the Water Board and the U.S. Environmental Protection Agency Region 9 (EPA) Emergency Response Team performed a site inspection with limited soil sampling of the Westend Plant and of the surrounding area in April 2009. The selected soil samples were analyzed for metals and pesticides. Pursuant to our request, soil samples collected in the area of the former aboveground fuel oil pumping station were analyzed for total petroleum hydrocarbons. Due to the lack of resources and shifting priorities, DTSC has postponed publication of the investigation report. However, based on verbal communications with DTSC, the results of the laboratory analyses indicated that there was no immediate threat to human health and the environment including surface and groundwaters. DTSC anticipates that the investigative report will be complete in the near future.

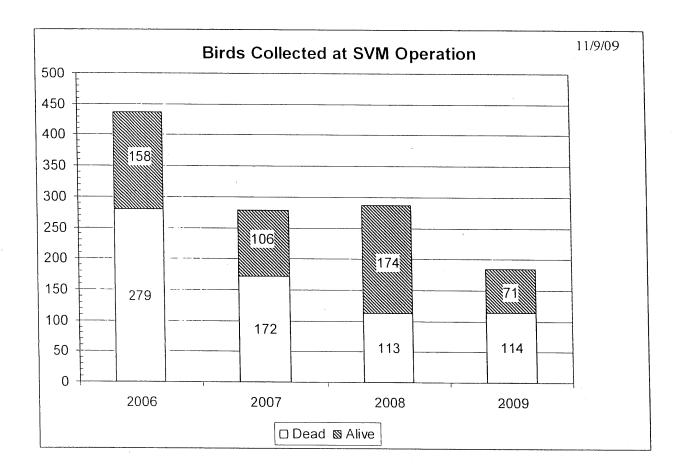
Progress on Off-site Bird Mitigation Project

The Off-site Bird Mitigation Project is in operation, which consists of three ponds, one 80-acre pond, one-15 acre pond, and one 35-acre pond. Operation and management activities are preformed by

representatives of the Dirty Socks Duck Club. These activities include: well operation, sump and pump operation and maintenance, repair strategies for berms and roads, and water management for the benefit of waterfowl and vegetation. SVM contributes resources to restore bird habitat and to further mitigate avian mortality. Operation and maintenance costs are satisfactorily being met yearly by SVM. Jim Barger, a representative of the Dirty Socks Duck Club, indicated that he has observed an average 1,000 birds per day and anticipates that number to increase as young vegetation begins to take hold. Current operation and management practices are expected to maintain a longterm preservation of developed bird habitat.

Bird Report

SVM continues daily bird monitoring, hazing, rescue, and rehabilitation activities with the assistance of personnel from Flys Free Wildlife Rescue. The migration periods typically occur in the spring and autumn. This reporting period partially encompasses the autumn season, which signifies the migration period is in midseason. The bird mortality rates at this time are increasing slightly, but have not exceeded the California Department of Fish and Game's Take Limit of 210 dead birds discovered and in hand per year.



ENCLOSURE 3

Notification of Spills (Unauthorized Waste Discharges)

Cleanup complete; Notice of Violation will be issued for violation of its SSO permit.

Unauthorized Waste Discharges EO'S Monthly Report 09/16/09 - 11/15/09

	Status Most sewage (1,500 gallons) was recovered. Residual material was treated with lime. Cleanup complete; further action pending review of spill report.	
	Sewage Discharge Description of Failure Discharge To Disc	
ERN	Regulated ischarger/Facility Location Basin Facility cosamond CSD / 35th Street S Y Yest at Mount Lassen, Rosamond	SOUNTY: EOS ANGELES
30UNIFY KERN	ischarger/Facilit	SOUNTR

	Status series series continues en expansive, come to continue continues en expansive, continues en expansive continues	Discharger cleared the blockage in one hour. Discharger installed a barrier in the stormwater retention basin to stop the spill from entering the second storm drain. Discharger removed sewage from first storm drain and retention basin and flushed the areas with a disinfectant solution. Discharger removed all water in second storm drain and then flushed the drain with a disinfectant solution. All flush disinfectant solution. All flush water was removed by vactor truck.
	Discharge To	Retention Di Basin on ba ba the the dra dra sol
	Discharge Discharge To Status III Date Volume Description of Failure Discharge To Status To consequently and a status of the consequent of the consequent of the consequent of the consequence of the c	Grease buildup caused a sewage overflow at a rate of 100 gal/min for approximately 1 hour. The spill entered a nearby underground storm drain, which discharged into a stormwater retetion basin at Oasis Park. From this basin, the spill entered a second storm drain where it mixed with existing storm water. The second storm drain terminates at Ave S and 40th Street East. No discharge occurred from the second storm drain structure.
	Discharge Volume	6,000 Gallons
	Spill Date	9/22/2009
	Substance Discharged	Manhole at S Y Sewage 9/22 40th Street East and Noll Drive, Palmdale
	Regulated Basin Facility	Y Y
	Basin	Solution of the state of the st
NGELES	Location	Manhole at 40th Street East and Noll Drive, Palmdale
COUNTY: LOS ANGELES	ischarger/Facility Location	ity of Palmdale /

Printed 11/30/2009

	o Status presentamente presentamente proportional de la company	California Housing and Commun Development, a State Agency, assisted the mobile home park in repair of the disposal system and cleanup of the spill, and reported the repair and cleanup informatio A septic tank contractor pumped effluent from the wet well, and th replaced the pump. The pump w repaired approximately 24 hours after spill discovery. The spilled effluent was contained in an area about 8 feet by 3 feet. The spille effluent percolated into the soil. Contractor disinfected the spill a and then added a layer of clean sover the spilled area. Cleanup complete, no further action.	Discharger cleared the blockage constructed a containment area for the spill in the field. Due to soil porosity, the spill percolated through the soil. Sewage debris removed from the parking lot are the contained the storm drain and
	Discharge To	Ground	Ground
	Regulated Substance Discharge Description of Failure Discharge To Status Discharged Spill Date Volume Description of Failure Discharged Spill Date Ordune Description of Failure Discharged Spill Date Discharged Spill Date Ordune Description of Failure Discharged Spill Date Ordune Description Discharged Spill Date Ordune Description of Failure Discharged Spill Date Ordune Description Ordune Description Description Description Ordune Description	Pump failed at the septic tank effluent wet well, where effluent is pumped to a soil absorption field.	Grease buildup in the City's sewer trunk line caused an overflow. Sewage flowed over parking lot and entered a submerged storm drain. The storm drain terminates in a vacant field on the northeast side of Riverside Dr.
	Discharge Volume	2,000 Gallons	6,000 Gallons
	Spill Date	9/22/2009	9/24/2009
	Substance Discharged	Septic Tank Effluent	Sewage
	Regulated Facility	A CALO TO CALL	\nearrow
	Basin	S S S S S S S S S S S S S S S S S S S	S
NTY: SAN BERNARDINO	Location	Barstow	1505 East Main Street, Barstow
COUNTY SANB	Discharger/Facility	Hacienda Mobile Home Park / Private sewage disposal system	City of Barstow / Barstow Collection System

Discharger cleared the blockage constructed a containment area fit the spill in the field. Due to soil porosity, the spill percolated through the soil. Sewage debris removed from the parking lot are The parking lot, storm drain, and the containment area were disinfected with granular chlorin The parking lot was rinsed with water, and the water was collect with a vactor truck. A small ame of water was added to the submerged storm drain to spread disinfectant throughout the drain Discharger plans to inspect restaurants to determine how the prevent grease from entering the sewer system. Cleanup complete Notice of Violation will be issue for violation of the permit.

		Ground Vactor truck pumped discharge off the ground. Lime was applied to the spill area. Cleanup complete; further action pending review of spill report.	Ground The flange was repaired, and about 75% of the recovered wastewater was pumped back into the system. Further action pending review of spill report.	Ground Pumps restarted. Spill had soaked into ground, so no sewage was recovered. Sewage debris removed. Town applied lime to spill impacted areas. NOV to be issued. Further action pending review of spill report	Ground Pumps restarted. Electrical short circuit found and repaired. Standing sewage recovered (1,800 gal) and debris removed. Town applied lime to spill impacted areas. Cleanup complete. Town upgraded SCADA communications. Groundwater investigative order to	De Issueu o'y boe'y, too'y
	Discharge To	G		O.	Q	
	Description of Failure	An effluent pump was shut off, causing secondary treated effluent to spill from the treatment aeration tank to the ground.	A flange failure resulted in a discharge of wastewater from the brine tank. The discharge flowed to the ground into secondary containment and the sides of a dirt road, and collected in an asphaltlined ditch on the east side of the Specialty Plant building.	Pump electrical failure and SCADA communication failure caused an overflow at a sewage lift station. Spill area measured 150 ft × 200 ft. Spill occurred in the Mojave River flood plain.	A second electrical and SCADA communication failure caused an overflow at a sewage lift station. Spill area measured 150 ft × 200 ft. Spill occurred in the Mojave River flood plain.	
	Discharge Volume	1,000 Gallons	5/2009 6,000 Gallons	20,000 Gallons	7,500 Gallons	
	Spill Date	10/10/2009	10/15/2009	10/16/2009	10/27/2009	
	Substance Discharged	Secondary Treated Effluent	Lanthanum Thickener Wastewater	Raw Sewage	Raw Sewage	
	Regulated Facility	Selection for the selection of the selec	\succ	X	>	
	Basin	S	N	S	S	
ERNARDING	Location	Treatment Plant, Apple Valley	Brine Tank	Pump Station at 15036 Riverside Dr., Apple Valley	Pump Station at 15036 Riverside Dr., Apple Valley	
SOUNTY: SAN BERNARDI	ischarger/Facility	ometown America /	olycorp Minerals / ountain Pass Mine	wn of Apple alley / Sanitary wer System	wn of Apple alley / Sanitary wer System	(

ENCLOSURE 4

Notification of Closure of Underground Storage Tank Cases

CASE CLOSURE REPORT August 2005

State of California Lahontan Regional Water Quality Control Board

Site Address Case Number Case Iype (in mg/Kg) (in mg/Kg) Receptor (in mg/Kg) Nameter (in mg/Kg)	
T6S022 SCP 230 TPHd 230 TPHd 5,800 TPHd 5,800 TPHd Creek Station feet SE T6S003 SCP 300 TPHd NT Squaw Creek is ~250 feet N 6T0101A UST 470 TPHg NT domestic well is ~50 feet Aown 6B1400422T UST 470 TPHg NT domestic well is ~50 feet Aown T6S070 SCP NA (GW Impacts being addressed under 6T0276A) 3.1 PAH 1,000 Lead 210 Silver 6T0276A) NA (GW Impacts 210 Silver 6T0276A) 6B140002T UST 45 MTBE 3.8 MTBE 1,400 feet southwest	Site Address
T6S003 SCP 300 TPHd NT Is ~250 feet N E1400422T UST 470 TPHg NT down GB1400422T UST A70 TPHg NT down T6S070 SCP NA (GW Impacts 3.1 PAH being addressed 1,000 Lead under GT0276A) EB140002T UST 45 MTBE 3.8 MTBE southwest	3860 Saddle Road, South Lake Tahoe
GE140042T UST 470 TPHg NT So feet	aw Vall
6B1400422T UST 470 TPH9 NT Gown gradient Creek is ~750 T6S070 SCP NA 7.7 Pb feet E NA (GW Impacts 3.1 PAH Impacts being addressed 1,000 Lead under GT0276A) GB1400002T UST 45 MTBE 3.8 MTBE southwest	lympic
T6S070 SCP NA 7.7 Pb Get E NA (GW Impacts 3.1 PAH Impacts being addressed 1,000 Lead under GT0276A) GB1400002T UST 45 MTBE 3.8 MTBE southwest	Hot Sprin Tecopa
T6S058 SCP being addressed 1,000 Lead addressed under 6T0276A) 210 Silver 6T0276A) 6T0276A (COUTON 1,400 feet 6T0276A) 3.8 MTBE 3.8 MTBE southwest	450/500 Gun Club Road, Tahoe Vista
1,400 feet southwest southwest	Truckee Rail Yard, APN 19-420-71
	North Mair Bishop

Notes:

TPHd - Total petroleum hydrocarbons quantified as diesel TPHg - Total petroleum hydrocarbons quantified as gasoline MTBE. Methyl Tertiary Butyl Ether

Pb- Lead

PAHS- Polycyclic Aromatic Hydrocarbons
Receptor- surface water, private drinking water wells and municipal supply wells, etc.
NA- Not Applicable
NT-Not Tested
SCP- Site Cleanup Program
UST- Underground Storage Tank 11-UST Closure EO Report November 09.xls

CASE CLOSURE REPORT

August 2005
State of California
Lahontan Regional Water Quality Control Board

Remedial Methods Used	Excavation, Groundwater Extraction
Distance from Site to Nearest Receptor	1,160 feet north
Remaining Soil Concentrations (in mg/Kg)	Ŋ
Remaining Groundwater Concentrations above Water Quality Objectives (in ug/L)	81 TPH9 7.9 41 PCE TCE
Case Type	UST
Case	6T0326A
Site Address	6001 National Avenue, Tahoe Vista
Site Name	Nevada Energy North Tahoe Maintenance Facility, Formerly Sierrra Pacific Power
Date Closure Issued	November 12, 2009

Notes:

TPHd - Total petroleum hydrocarbons quantified as diesel TPHg - Total petroleum hydrocarbons quantified as gasoline PCE- Tetrachloroethylene

Receptor-surface water, private drinking water wells and municipal supply wells, etc. NS-Not Sampled NA-Not Applicable ND-Not Detected TCE- Trichloroethylene