

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION**

**MEETING OF MARCH 11-12, 2009
Kings Beach, CA**

ITEM: 1
SUBJECT: EXECUTIVE OFFICER'S REPORT
DISCUSSION: The Executive Officer's report includes the following:

PART 1: February 2009

- Enclosure 1: Executive Officer's Written Report
(February 2009)
- Enclosure 2: Notification of Spills
- Enclosure 3: Notification of Closure of Underground
Storage Tank Cases (Pursuant to Article
11, Division 3, Chapter 16, Title 23,
California Code of Regulations)

PART 2: March 2009

- Enclosure 4: Report on Status of Standing Items
(March 2009)
- Enclosure 5: Executive Officer's Written Report
(March 2009)
- Enclosure 6: Notification of Spills
- Enclosure 7: Notification of Closure of Underground
Storage Tank Cases (Pursuant to Article
11, Division 3, Chapter 16, Title 23,
California Code of Regulations)

01-0001

ENCLOSURE 1

Executive Officer's Written Report (February 2009)

01-0002



EXECUTIVE OFFICER'S REPORT

February 2009

NORTH BASIN

1. **Desert View Dairy--San Bernardino County** - Lisa Dernbach

Three of the four parties named in a November 2008 cleanup and abatement order for groundwater pollution at the Desert View Dairy in Hinkley filed a petition for review with the State Water Board. The parties petitioning the Order include those identified as being primarily responsible for discharges: the Dairy operator, Paul Ryken, and two former operators, the Nick Van Vliet Estate and Flameling Dairy, Inc. The Order was not petitioned by the Dairy landowner, the Pacific Gas and Electric Company, who was listed as being secondarily responsible. Mr. Ryken and the Estate of Nick Van Vleit requested a stay of three requirements in the Order during the petition review process. The Flameling Dairy has requested that its petition be held in abeyance to determine whether compliance is achieved by other parties listed in the Order. The Order was issued following receipt of a technical report showing levels of nitrate and other constituents above drinking water standards in domestic wells on five off-site properties.

Since the Order was issued, the parties have complied with the first four requirements: (1) provide alternate water supply to affected off-site residents, (2) issue notices to other residents threatened by pollution, (3) conduct

quarterly sampling of affected and threatened drinking water wells, and (4) submit quarterly technical reports containing sampling results. The notices generated numerous calls by off-site residents, which required Board staff to explain the well sampling results. The next submittal required in the Order is a workplan, due by March 20, 2009, proposing long-term, uninterrupted replacement water for off-site supply wells adversely affected by nitrates originating from the Dairy.

Water Board staff will be meeting with Mr. Ryken and his representatives on February 3, 2009 to discuss the Order and petition. The meeting may result in withdrawal of the petition, the petition being held in abeyance, changes to the Order, additional Orders to other parties, or a decision by the petitioners to continue seeking review of the Order.

2. **Emerging Contaminants 2008 Symposium** - Linda Stone

Staff attended the Symposium on Emerging Contaminants held in San Jose in November 2008. The two-day symposium was part of the Groundwater Resources Association series on groundwater contaminants. The event presented the latest developments in detection, risk assessment, remediation and regulation of emerging contaminants in groundwater. The event consisted of

expert presentations, round-table discussions, and poster sessions conducted by representatives from academia, regulatory agencies, consulting, industry, and the legal field.

The overall message from the conference was that emerging chemical contaminants present numerous technical and regulatory challenges. Our society is becoming aware of the presence of these compounds in our waters through more thorough monitoring and better analytical methods. However, the impacts of some of these chemicals on human health and the environment is not well understood. This situation continues to present significant challenges to water purveyors and recyclers, regulatory agencies, and the producers of these chemicals.

Some key topics included:

- Water recycling and emerging contaminants, including estrogenic endocrine disruptors, pharmaceuticals and personal care products (PPCPs), disinfection byproducts such as n-nitrosodimethylanmine (NDMA), and persistent compounds such as 1,4-dioxane.
- The toxicity and persistence of lead scavengers: ethylene dibromide (EDB) and 1,2-dichloroethane (1,2-DCA), from historic releases of leaded gasoline.
- Pathogens and pharmaceuticals from livestock
- Nanotechnology: the use of nano-scale particles and the potential threat they could pose based on their extremely small size and metal content.

A representative for USEPA, stated that USEPA had no plans on setting drinking water standards for any new contaminants.

3. **Leviathan Mine, Alpine County – Chein Kao**

USEPA and ARC enter into Settlement Agreement and Administrative Order on Consent (AOC) for Removal Action at Leviathan Mine

USEPA and ARC reached an agreement to settle past oversight costs and to modify the interim removal action regarding collecting and treating acid mine drainage from two features at the Leviathan Mine site: the Channel Under Drain (CUD) and the Delta Seep (DS). The AOC replaced a previous requirement for year-round collection and treatment of CUD and DS flows with a requirement for collecting CUD and DS flows only from June to October of each year. The AOC was published in the Federal Register on November 24, 2008 for a 30 day public comment period. Water Board staff and legal counsel provided comments on December 23, 2008 that sought clarifications on certain language in the agreement.

4. **Nevada Coordinated Monitoring Program for the Truckee River - Lauri Kemper**

Nevada's Legislative Committee to Oversee the Western Regional Water Commission requested a bill be drafted for the 2009 Nevada Legislature encouraging entities engaged in Truckee River Monitoring to enter into an Memorandum of Understanding (MOU) that will 1) commit agencies to the implementation of a coordinated approach under the leadership of the Nevada Division of Environmental Protection (NDEP) to improve efficiency and eliminate duplication; 2) describe and memorialize the monitoring currently being conducted; 3) provide assurance that this current level of monitoring will continue and remain responsive to changing conditions; and 4) define how

data results and reports will be made available to the public. NDEP initiated an effort in December 2009 to begin drafting an MOU with parties currently involved in monitoring the Truckee River. Over fifty people attended the first meeting to discuss this coordination effort including members of the Northern Nevada Water Planning Commission, state agencies, federal agencies, and local/county agencies. Lahontan Water Board staff Lauri Kemper was the only participant from California.

Over the years, the Nevada agencies have loosely coordinated monitoring of the Truckee River, including sections of the river in California from Lake Tahoe's dam to the Nevada-California state line. Data sharing currently occurs through the use of the website, Truckee River Information Gateway at <http://truckeeriverinfo.org/>. At this web page, entities can post and share water quality data and information. Because of the Nevada Legislature's request, NDEP will now lead an effort to formalize an agreement to continue data sharing and coordination. It is anticipated that additional improvements to the website will be made to make data more easily available and useful to the general public. A draft MOU will be developed by spring 2009 to present to the Nevada Legislature.

Currently, the Truckee River Watershed Council is the only entity in California posting water quality information from their volunteer monitoring efforts. The Nevada agencies are willing to share the website for data posting obtained from California agency monitoring efforts of the Truckee River. Lahontan Water Board staff will encourage our partners (Placer County and Town of Truckee) to post water quality information to this website. NDEP is willing to include California agencies in its agreement regarding water quality coordination or to coordinate more

informally on water quality monitoring efforts in the California portion of the Truckee River watershed.

5. *Developing an E. coli Bacteria Standard* – Carly Nilson

The US Environmental Protection Agency is currently recommending that the State of California adopt an *E. coli* water quality objective that is commensurate with California's existing fecal coliform standard. *E. coli* is a more widely accepted indicator of human-caused water quality effects.

The State Board is working on the adoption of a statewide standard. However, Lahontan Region fecal coliform standards are more stringent than other regions. Therefore, *E. coli* standards required to protect beneficial uses in the Lahontan Region would likely be more stringent than those proposed in the statewide standard.

Dr. Ken Tate of the University of California has developed an interagency agreement with the Lahontan Water Board to collect data for developing a potential *E. coli* standard for the Lahontan Region. The one-year project will collect and analyze water samples from 10 natural streams and rivers found within the Lahontan Region from Susanville to Bridgeport. The data will determine if a correlation exists between the current fecal coliform standard and *E. coli* and which indicator, fecal coliform or *E. coli*, is a more applicable standard. The results may determine if a specific *E. coli* standard should be adopted for the Lahontan Region.

6. *Water Quality, Range, Pasture, and Livestock Management Workshop* – Carly Nilson

The University of California Sierra Foothill Research Extension Centre hosted the

workshop on January 14, 2009 in Brown's Valley. Two Lahontan Board staff, other regulatory agency staff, and ranchers attended the workshop to discuss pertinent research for grazing best management practices. Presenters were UC Davis professors/researchers Dr. Ken Tate, Dr. Randy Dahlgren, and Dr. Toby O'Geen. The workshop reviewed state water quality standards and compliance along with discussing realistic methods to control pollutants from being discharged in waterways.

The most thought-provoking talk of the day was *Ambient Conditions and Monitoring for Livestock Associated Pathogens and Indicators in CA Waterways* by Dr. Tate. He presented a side-by-side comparison of data from California rangelands, including Bridgeport Valley in the Lahontan Region, of the indicator bacteria *E. coli* versus various pathogens (cryptosporidium, giardia, salmonella, and pathogenic *E. coli* 0157:H7). Dr. Tate emphasized the *E. coli* is a better, more specific indicator of fecal contamination than the Lahontan Water Board's current fecal coliform standard. But, other pathogen indicators, such as giardia or cryptosporidium, may be more direct indicators of beneficial use impairment in agricultural livestock systems.

Other presentations included recommended methods such as: 1) removing cattle and resting pastures prior to irrigation, 2) controlling irrigation rate so there is less overflow, 3) allowing for natural wetlands on lowlands, and 4) removing cattle from direct access to waterways.

Water Board staff had the unique opportunity of learning about the new research that will inspire new techniques for grazing best management practices to reduce nutrient and pathogen pollutants from entering waterways. The day ended

under the afternoon sun with a field tour of grazing BMPs.

Information presented at the workshop can be accessed at <http://ucanr.org/sierrafoothill/workshops/>.

7. **Donner Lake Fish Tissue Results** - Thomas Suk

Staff recently received the results of fish samples collected from Donner Lake. Fish tissue was positive for varying levels of chlordane, dieldrin, polychlorinated biphenyls (PCBs), and mercury. None of the samples exceeded the "no consumption" levels established by the California Office of Environmental Health Hazard and Assessment (OEHHA), but many of the samples exceeded other OEHHA criteria, such as guidelines for persons who eat multiple fish meals per week.

In the early 1990s, Donner Lake was placed on the Clean Water Act Section 303(d) list of impaired water bodies based on very limited results from the State Water Board's former Toxic Substances Monitoring Program (TSMP), which had detected relatively high levels of PCBs and chlordane in fish flesh. The recent more detailed studies were funded by the Water Boards' Surface Water Ambient Monitoring Program (SWAMP) to provide data necessary to determine whether a threat exists to human health and/or other beneficial uses of water.

The new data were received by staff in January, and have been transmitted to OEHHA and local county health officials. Those agencies are responsible for determining whether fish consumption advisories are warranted, and if so, for establishing specific fish consumption advice and notifying the public. Staff will also assess the new data to determine whether any changes are needed to the 303(d) listing for Donner Lake, and to

determine appropriate actions for addressing the current listing.

SOUTH BASIN

8. **Godde Hill Road Drainage Basin - Update - Douglas Feay P.G.**

In response to a complaint received in late October 2008, Water Board staff investigated reported dumping practices at the City of Palmdale's (City's) Godde Hill Drainage Basin. The complainant had witnessed City workers dumping waste asphalt emulsion material in the basin and had noted two large, dark gray stained soil areas in the basin. Water Board staff collected soil samples of the waste asphalt emulsion and dark stained soils.

In early November 2008, I issued an Investigative Order requiring the City to submit a Soil Investigation/Cleanup Work Plan by November 6, 2008, and a Soil Investigation Report and a Historic Discharge Report by December 5, 2008.

Soil Investigation Report

In mid-November 2008, the City removed approximately 327 tons of accumulated debris from the basin and disposed of it properly at the Antelope Valley Recycling and Disposal Facility. In addition to debris removal, the City excavated approximately 250 cubic yards of potentially contaminated soil. The excavation went to a depth of about 1-foot below ground surface. During the removal action, excavated soils were stockpiled on site, pending characterization for proper disposal. After excavation of potentially contaminated soil, 10 trenches were dug in the excavation areas to collect confirmation samples from depths of 3-inches to 5-feet below ground surface. Based on the confirmation sampling results, the report concludes and Water Board staff concurs that the site has been remediated and no further action is

recommended for the Godde Hill Drainage Basin.

Historic Discharge Report

In the Historic Discharge Report, the City stated that only one other drainage basin, in addition to Godde Hill, was used for discharges from public works projects. The second basin is located at Highway 14 and Avenue Q, where public works personnel routinely discharged debris at this site during the past eight years. The debris consists of green waste, trash, and sediment collected from drywells and stormwater inlets. No asphalt emulsion was dumped at the Highway 14/Avenue Q drainage basin. Water Board staff has requested that the City test the soil at the Highway 14/Avenue Q drainage basin for similar constituents of concern as was specified for the Godde Hill Basin investigation and report the test results. Water Board staff will evaluate the Highway 14/Avenue Q report results and determine if remediation is required for this basin.

The City has directed the Maintenance Department to stop all dumping of debris and asphalt emulsion to unauthorized locations. Maintenance personnel must ensure that all trucks are decanted to remove liquids within a concrete containment structure located in the City's maintenance yard. The City then treats these liquids in a three-stage clarifier prior to discharge to the sanitary sewer. The remaining solid debris are disposed at a local landfill. The waste asphalt emulsion and diesel used to flush the application equipment is now collected into 55-gallon drums at the City's maintenance yard and disposed of in accordance with applicable local and state regulations.

9. City of Barstow Workshop – Ghasem Pour-ghasemi

The City of Barstow (City) held a workshop on January 15, 2009. The main goal of the workshop was to educate the City's new council members, Mayor, and other residents of the area, on the City's obligation in upgrading the wastewater treatment plant and its groundwater and soil cleanup status. Water Board staff attended the workshop.

City employees presentation included groundwater monitoring information, the Soapmine Road area location, and wastewater treatment facilities. Two council members expressed doubts that the City was fully responsible for the nitrate pollution in groundwater and suggested that the septic systems on the properties in the Soapmine Road area possibly contributed to the high nitrate level. Water Board staff explained to the council members that the discharge from the forty residential septic systems is very small in comparison to the City's 1.2 million gallons per day discharge to the northern irrigation field for over two decades. The Mayor asked for additional comments and two residents expressed comments about the money spent for these projects and the City's responsibility. The City Manager told council members that the City has sufficient reserve in its account to cover the initial construction cost for the treatment plant upgrade, the pilot phase cleanup project and the planned monitoring wells, but not for the ongoing maintenance cost.

The workshop included a tour of the sewage treatment facilities, irrigated agricultural site, percolation ponds, and the Soapmine Road area. City staff described the sewage treatment process and pointed out monitoring well locations in the Soapmine Road area.

10. Proposed Solar Projects in the Lahontan Region - Joe Koutsky

Governor Arnold Schwarzenegger signed Executive Order S-14-08 in November 2008, to streamline California's renewable energy project approval process. The governor's plan includes directives to streamline the environmental permitting process by using existing provisions of the Warren-Alquist Act of 1974 (Act). As a result, the California Energy Commission will adopt a permit that will include requirements to protect water quality in lieu of a separate action by the Water Board. The Energy Commission is implementing a permit streamlining process for all thermal power plants rated more than 50 MW, under the Energy Commission's "in lieu permit" authority established under the Warren-Alquist Act. The Commission's streamlining process accomplishes a primary objective identified in the Governor's Order – to create a "one stop" process for permitting renewable energy generation facilities under California law. Accordingly, Energy Commission staff is coordinating joint environmental review with other agencies such as the U.S. Fish and Wildlife Service, California Department of Fish and Game, State Water Resources Control Board, Lahontan Regional Water Quality Control Board, and various local authorities, in order to facilitate the Energy Commission's certification process.

To date, there are five solar projects proposed for construction in the Lahontan region encompassing land areas ranging from 377 to 3,400 acres located in Kern, Los Angeles, and San Bernardino Counties. The projects will have nominal electrical outputs ranging from 250 megawatts (MW) to 850 MW. The proposed projects are identified in the table below.

Project Name and Applicant	Location	Size (Acres)	Technology	Total Megawatts	Lead Agency
Beacon Solar Energy Project; Beacon Solar LLC	Kern County	2,012	Solar trough	250	Energy Commission
Ivanpah Solar; Solar Partners/Brightsource	San Bernardino County	3,400	Solar tower	400	Energy Commission
Victorville 2 Hybrid Power Project; City of Victorville	San Bernardino County	388	Natural gas/solar trough	563	Energy Commission
SES Solar One Project; Stirling Energy Systems	San Bernardino County	8,230	Stirling engine	850	Energy Commission
City of Palmdale Hybrid Gas-Solar; City of Palmdale	Los Angeles County	377	Natural gas/solar trough	617	Energy Commission

These projects are overseen by the California Energy Commission (CEC), which is the lead agency for licensing thermal power plants 50 megawatts and larger. The CEC has a certified regulatory program under CEQA and is exempt from having to prepare an environmental impact report. Its certified program, however, does require environmental analysis of the project, including an analysis of alternatives and mitigation measures to avoid or minimize any significant adverse effects the project may have on the environment. The CEC's facility certification process is designed to examine public health and safety, environmental impacts, and engineering aspects of proposed power plants and all related facilities such as electric transmission lines, natural gas pipelines, etc. Water Board staff together with the

CEC staff are working with the project proponents to obtain all the required information to enable Water Board staff to write a tentative permit for each project. The tentative permit will ensure that our Basin plan and water quality policies and requirements are implemented. The tentative permit will be incorporated into the larger, single CEC facility permit (license), which the CEC will certify. Currently throughout the state, the CEC has identified 13 large solar thermal projects that are either approved, under review, or being considered in Fresno, Imperial, Kern Los Angeles, San Bernardino and San Luis Obispo Counties.

ENCLOSURE 2

Notification of Spills (Unauthorized Waste Discharges)

01-0019

EO'S Monthly Report
12/16/08 - 1/15/09
Unauthorized Waste Discharges

COUNTY: LOS ANGELES

Discharger/Facility	Location	Basin	Regulated Facility	Substance Discharged	Spill Date	Discharge Volume	Description of Failure	Discharge To	Status
CSD 14 of Los Angeles County / Storage Reservoir Construction Site	Avenue C between Hwy 14 and Sierra Hwy, Lancaster	S	Y	Undisinfected Secondary Effluent	1/12/2009	600,000 gallons	A reservoir contractor struck a non-operational outfall pipeline to Nebeker Ranch with heavy equipment. The effluent in pipeline drained out to excavation trench and ground surrounding trench.	Ground	The ponded effluent, approximately two thirds of the release, was returned to the treatment plant. The affected ground surface was disinfected. NOV to be issued February 13, 2009.

01-0011

ENCLOSURE 3

Notification of Closure of Underground Storage Tank Cases

CASE CLOSURE REPORT
February 2009
 State of California
 Lahontan Regional Water Quality Control Board

Date Closure Issued	Site Name	Site Address	Case Number	Case Type	Remaining Groundwater Concentrations above Water Quality Objectives (in ug/L)	Remaining Soil Concentrations (in mg/Kg)	Distance from Site to Nearest Receptor	Remedial Methods Used
December 19, 2008	Former High Sierra Rendering	1258 Main Street, Bishop	6B1400831T	UST	Soils only	0.058 toluene, 0.084 ethyl-benzene, 0.225 xylene	>1/4 mile	Excavation
December 29, 2008	Giggle Springs Exxon	610 North Main Street, Bishop	6B1400057T	UST	160 TPHg 5.8 MTBE	2.9 TPHg 0.022 MTBE	~1,400'	Excavation, Groundwater extraction

Notes:

TPHd = Total petroleum hydrocarbons quantified as diesel
 TPHg = Total petroleum hydrocarbons quantified as gasoline
 TRPH- Total Recoverable Petroleum Hydrocarbons
 NS-Not sampled
 NA-Not Applicable
 "Receptor" is typically a water well or a surface water

01-00-10

ENCLOSURE 4

Report on Status of Standing Items (March 2009)

**CALIFORNIA REGIONAL WATER QUALITY
CONTROL BOARD
LAHONTAN REGION**

REPORT ON STATUS OF STANDING ITEMS

March 2009

The Regional Board has requested that it be kept informed of the status of a number of issues. The following table lists the items, the reporting frequency and where the report can be found.

ISSUE	REPORT FREQUENCY	STATUS/COMMENT
City of Barstow	Quarterly in the South	Due April 2009 Board Meeting
Searles Valley Minerals Operations - Compliance Status	Semi-Annual	Due June 2009 Board Meeting
Mojave River/El Mirage Dairies	Semi-Annual	Due April 2009 Board Meeting
County Sanitation Districts of Los Angeles - District No. 14	Semi-Annual	Due April 2009 Board Meeting
County Sanitation Districts of Los Angeles - District No. 20	Semi-Annual	Due April 2009 Board Meeting
Status of Basin Plan Amendments	Semi-Annual	Due April 2009 Board Meeting
Status of Grants	Semi-Annual	Due April 2009 Board Meeting
Wetland Restoration Mitigation - Mono County	Annually	Due May 2009 Board Meeting
Caltrans Statewide General Permit/Tahoe Basin	Annually	EO Report Item No. 3
Tahoe Municipal Permit	Annually	Due July 2009 Board Meeting

ENCLOSURE 5

Executive Officer's Written Report (March 2009)

01-0015



EXECUTIVE OFFICER'S REPORT

March 2009

NORTH BASIN

1. Agreement with Squaw Valley Public Service District for Red Dog Diesel Spill Funds – Chuck Curtis

Water Board staff developed an agreement between the Water Board and Squaw Valley Public Service District (District) specifying the conditions for the District's use of the Red Dog Diesel Spill Mitigation Fund grant that the Water Board approved at its January 14, 2009 meeting. The Water Board approved of the use of \$46,216 from the fund to develop a groundwater monitoring plan and groundwater management database for Squaw Valley. The agreement specifies that the money may only be used for those tasks identified in the District's request to the Water Board, that the District must report to the Water Board quarterly on project progress and funds spent, and that any funds remaining after completion of the project must be returned to the Fund. I signed the agreement on February 11, 2009 and sent it to the District for its execution, which is expected following the District's March Board of Directors' meeting. The project is expected to be implemented over the next year.

2. Underground Storage Tank (UST) Cleanup Fund Update – Brian Grey

The Barry Keene Underground Storage Tank Cleanup Fund Act of 1989 (Fund) was created by the California Legislature,

and is administered by the State Water Resources Control Board (State Water Board), to provide a means for petroleum UST owners and operators to meet the federal and state UST requirements. The Fund also assists a large number of small businesses and individuals by providing reimbursement for unexpected and catastrophic expenses associated with the cleanup of leaking petroleum USTs. The Fund's revenues are generated by a fee (currently 1.4 cents) for every gallon of petroleum product placed in a UST. The fee is collected by the State Board of Equalization and has historically generated approximately \$230-\$250 million per year.

The Fund has a four class priority system determined by the claimants' ability to pay, not threat to water quality. Statute dictates the minimum payment to each class based on the Fund's net revenues for that period. Historically, the Fund has been able to pay all claimants with its net revenues. However, due to decreasing revenues and increasing costs, the Fund will no longer be able to fund all claimants and has projected the following for future fiscal years:

Class A- Residential Owners

- No delay in payments
- No claims will be suspended

Class B- Small Businesses with 100 or fewer employees

- Active claim payments will be delayed 6 to 18 months
- Of the 68 active cases, approximately 30% may be suspended

Class C- Businesses with 500 or fewer employees

- Of the approximately 50 active claims, about 76% have been suspended.
- No additional payments will be made this fiscal year

Class D- Major Businesses

- There are 6 active claims, none have been suspended.

The projected delay and suspension of payments will result in significant effort by both the regulated and regulatory communities to reach satisfactory agreements with respect to future investigation and remediation activities at UST sites. The delay and suspension of payments will be especially difficult in cases where water quality threat exceeds the claimants' ability to pay. Staff is working, and will continue to work, with all involved parties to maintain a consistent and reasonable approach to remediate sites with the highest threat to water quality with the limited resources.

3. Caltrans Statewide General Permit Status Report - Bud Amorfini

Status of Permit Update

As indicated in my last report to you, the Caltrans Statewide NPDES Permit expired in August 2004, and has been "administratively continued" in effect. State and Regional Water Board staff have been working on issues related to the Permit reissuance. This effort is still ongoing.

In August 2008, Lahontan Water Board staff provided recommended changes to State Water Board staff with regards to

the location-specific requirements for the Lahontan Region that apply to the Lake Tahoe Basin. The existing requirements are not consistent with the plan for the Lake Tahoe TMDL and the goal of implementing a priority-based sediment load reduction strategy emphasizing reduction of the greatest number of fine particles, rather than treating all storm water from Caltrans facilities to meet a concentration-based effluent limit.

Staff recommended that the updated permit contain requirements for Caltrans to evaluate relative sediment loading to waters from its roadways and other facilities, prioritize road segments where load reduction opportunities are the greatest, and design and construct projects to meet the load reduction goals that will be established in the Lake Tahoe TMDL. State Board staff report that the permit is still in development, will need further review by the Regional Boards, and will not likely be adopted until late in 2009. I am considering other regulatory options to require Caltrans to complete and implement a load reduction strategy rather than postponing this activity until the Caltrans Statewide NPDES Permit is eventually reissued.

Status of Compliance

Over the last year, Caltrans has been making progress towards compliance with the current permit as well as making adjustments in its program to implement a load-based strategy as recommended by Lahontan Water Board staff. Caltrans is conducting ongoing projects for retrofitting existing roadway segments with erosion and pollution controls. A summary of significant water quality improvement projects in the Lake Tahoe and Truckee River hydrologic units, and various water quality improvement studies, is presented below.

Lake Tahoe

Highway 50 from the Y to Stateline - Project is separated into three phases with anticipated construction start dates ranging from 2010 to 2012. A 60 percent design has been developed for the Trout Creek to Ski Run Boulevard segment that includes a range of treatment and infiltration BMPs. Two Delaware sand filters that are capable of removing fine sediment are also planned for this segment. These projects are being developed in close coordination with the Tahoe Regional Planning Agency (TRPA) to address transportation and bike lane requirements

Highway 89 from the Alpine County line to Highway 50 - Design work on this segment has been completed and construction is scheduled to start in the spring of 2009. Water quality improvements will include sand vaults, vegetated swales, and infiltration basins.

Highway 28 from Tahoe City to Kings Beach - Construction started in 2008 and is scheduled to be completed by 2010. Treatment systems generally consist of double-chambered sand vaults, which have the capacity for filter media to be installed at a later date. Filter media has not yet been established as a Caltrans approved BMP, so the initial project will not include filter media. Therefore, the initial configuration of the sand vaults may not be effective at removing fine particles from runoff.

Highway 50 from Echo Summit to the Y and Highway 89 from the Y to Tahoe City - Approximately six separate projects are being programmed to address these road segments. Anticipated construction start dates range from 2010 to 2012 and design work is currently underway. These road segments were evaluated through the NEAT study (see below) such that available resources should be focused

areas where there is hydrologic connection to Lake Tahoe and avoid work in areas where significant load reduction opportunities do not exist.

Truckee River

Highway 89 from Tahoe City to Squaw Valley Road - This project is a water quality improvement project that includes installation of curb and gutter and sand vaults. Work started on this segment in 2008 and is planned to be completed by the end of the 2009 construction season.

Interstate 80 from Donner Summit to the California/Nevada state line - The significant projects along this road segment include those discussed below.

- Donner 1 and 3 - The projects involve installation of various water quality improvement features in conjunction with the rehabilitation of the paved surfaces. The project includes culvert replacements and installation of pollution control devices for treating runoff. The road segments include the east- and west-bound lanes from Donner Summit through the Town of Truckee. Construction was started on Donner 1 in 2008 and is planned to be completed in 2010. Donner 3 is scheduled to start in 2009 and be completed in 2011; however, it is possible that the project may be delayed due to funding reductions.
- Boca Water Quality Improvements - A roadway rehabilitation project was previously completed on Interstate 80 from Boca to Floriston with the condition that water quality improvements would be made in subsequent years. The first of three phased projects, which will retrofit approximately three miles of existing roadway with drainage and runoff treatment improvements, is scheduled to be completed in 2009.

- Truckee River Canyon Rehabilitation - The project is a roadway rehabilitation and water quality improvement project on Interstate 80 from Floriston to the state line. The project involves improving drainage structures and providing runoff treatment. The project is scheduled to start in 2009 and be completed by 2012.

Water Quality Improvement Studies

NEAT (Natural Environment as Treatment) Study - Caltrans recently completed a field study to identify areas in the Lake Tahoe watershed where runoff may be adequately treated by the natural landscape (areas with no hydrologic connection to Lake Tahoe) and other areas where engineered treatment is required (areas with hydrologic connection to Lake Tahoe). The study area includes Highway 50 from Echo Summit to the Y and Highway 89 from the Y to Tahoe City. The purpose of the study is to evaluate which areas drain directly to surface waters with large or untreated pollutant loads, and use this information to focus water quality improvement projects and load reduction opportunities in these areas, and avoid using resources in areas that do not provide load reduction benefits. This approach has been encouraged by staff and is consistent with the TMDL implementation strategy. Staff is reviewing a draft report and is working with Caltrans to implement the strategy as water quality improvement projects are developed for these road segments. Preliminary results suggest that significant cost savings can be realized while focusing resources on the areas where loading is likely the greatest.

IceSlicer Study - Caltrans has initiated a multi-year study of an alternative deicing product called IceSlicer. The study is planned to be conducted over the next

two to three years on Interstate 80 in the Donner Summit area. Product information indicates that IceSlicer is composed of naturally occurring complex chlorides. It is suggested that IceSlicer may be applied at half the rate of typical salting operations and does not require the addition of traction sand to be effective. We are hopeful the material may prove to be a viable substitute to traction sand and help reduce salt and fine particle loading from roadway runoff.

Alternative Deicers – Caltrans conducted a literature search and assessment of alternative deicing practices in 2008. A final report is anticipated to be completed by March 2009. Staff will review the results when the report is finalized and distributed by Caltrans.

Dustless Sweepers - The sweepers used in the Lake Tahoe Basin now produce significant levels of air-borne dust during routine operation. Caltrans is testing the use of a TYMCO "dustless" sweeper in the Lake Tahoe Basin. One TYMCO sweeper was recently acquired under a three-month lease. If the sweeper performs in a manner useful to maintenance operations, the lease could be extended and acquisition and/or replacement of current sweepers could be considered.

BMP Pilot Studies

Caltrans has been implementing a wide of range pilot BMP studies across the state, including several Tahoe-specific studies focused on removal of fine particles. It has completed an inventory of all discharge points in the Lake Tahoe Basin, analyzed the chemical and physical characteristics of its storm water runoff, and added sand filters to its list of approved BMPs. As a result, two Delaware sand filters are being designed as part of a water quality improvement project on Highway 50 through the City of

South Lake Tahoe. Previous studies have shown that sand traps are effective at removing coarse solids, but are not effective at removing fine particles, the primary pollutant of concern for lake clarity. Alternative techniques for removing fine particles are being evaluated and include the following:

- activated alumina at Highway 50 basins
- fabric filter media on Highway 267
- small-scale bench testing of a range of filter media
- various coagulants combined with active and passive dosing techniques
- roadside vegetation

Most of these studies are ongoing and final evaluation has not been completed. However, progress reports indicate that activated alumina is effective; whereas, fabric filter media is not. Coagulants appear promising, but have limitations in terms of field applications. Sand vaults are being included in current projects such that they can be retro-fitted with filter media in the future as materials are evaluated and approved.

Ongoing Work Items and Issues

Staff anticipates that the following Caltrans related activities and issues will be advanced during the next year.

Project Implementation – Staff will continue to review and oversee construction projects throughout the Region and work with Caltrans to implement projects in the Lake Tahoe Basin that are consistent with the TMDL strategies and with other applicable water quality protection standards.

Eroding Slopes – In the Lake Tahoe watershed, there are many slope areas that are pollutant sources to roadways and drainages. Caltrans will be tasked to

identify areas where erosion from existing cut and fill slopes is occurring and propose means to reduce erosion and sediment loading. Additional projects to mitigate these features are needed under the existing Permit requirements. Enforcement actions may be needed to speed implementation or provide interim controls until such areas are permanently stabilized.

Maintenance Practices – Staff will continue work with Caltrans to improve maintenance practices that reduce pollutant loading to Lake Tahoe. These may include using alternative deicers, reducing traction sand applications, conducting more frequent or effective sweeping activities, and coordinating maintenance practices with water quality improvement projects. Additional information on existing management practices may be needed, and monitoring and reporting programs may be developed to address such needs.

Fine Particle Treatment Effectiveness – Staff will continue to encourage Caltrans to focus on treatment strategies that are capable of removing fine particles from roadway discharges in the Lake Tahoe Basin. Caltrans' current list of approved treatment BMPs is very limited in terms of devices that provide effective fine particle treatment. We are encouraged that Caltrans is incorporating Delaware sand filters in certain projects. We expect to be seeing this technology employed with increasing frequency in the Lake Tahoe basin to meet existing requirements to reduce pollutants in storm water discharges to the maximum extent practicable. Continued improvement in sand vault effectiveness through the use of filter media will likely be needed in the future.

4. Secured Cleanup and Abatement Account Funds for Asian Clam Removal Pilot Project – Daniel Sussman

The Lake Tahoe Aquatic Invasive Species Working Group is supporting a pilot project to remove Asian clams (*Corbicula fluminea*) from Lake Tahoe. We have obtained \$100,000 from the State Water Board Cleanup and Abatement Account to support this pilot project. These funds cover about one quarter of the project costs.

The clams, first confirmed in 2002, are established in colonies along the south east portion of Lake Tahoe, from Regan Beach (CA) to Marla Bay (NV). Asian clams contribute to water quality impairment by excreting biologically available nitrogen and phosphorus in their waste, enabling the growth of filamentous algae. A dense algal bloom occurred at Marla Bay in 2008. Additionally, the presence of dead Asian clam shells increase localized concentrations of calcium in the water, a condition that improves the habitability of Lake Tahoe for invasive quagga and zebra mussels. So far, no invasive mussels have been found in Lake Tahoe.

The clam removal pilot project, which will begin in March 2009, is being implemented on a one year timeline. The project places barriers on the lake bed to deprive the clams of oxygen and removes clams and infested substrate using a diver operated suction device. The project is designed to answer a number of questions, ranging from the logistical feasibility of these techniques for large scale implementation, to determining the best time of year for these operations based on clam lifecycle.

5. Upcoming Lake Tahoe TMDL Lake Clarity Crediting Program Stakeholder Meeting – Robert Larsen

As I reported in the December 2008 Executive Officer's Report, Environmental Incentives, LLC, under contract with the Water Board, is leading an effort to develop a Lake Clarity Crediting Program (LCCP) to link water quality improvement projects and related actions within the urban landscape to load reduction credits. The consultant team is drafting a Lake Clarity Crediting Handbook that will guide project implementation agencies in calculating Lake Clarity Credits from constructing and maintaining erosion control and storm water treatment projects along with credits related to roadway and facilities management actions.

The LCCP is unique among TMDL implementation efforts since it provides an explicit connection between best management practice activities and estimated pollutant load reductions to track progress at achieving load reduction targets. Water Board staff anticipate using the LCCP to provide a consistent metric to assess whether our local government partners are adequately meeting load reduction goals.

To introduce the LCCP to a wide audience of Lake Tahoe basin stakeholders, the Lake Tahoe TMDL Team and Environmental Incentives are planning a half day meeting that will cover the status of both the Lake Tahoe TMDL effort and the LCCP. The meeting will be held at the Tahoe Regional Planning Agency office on March 5, 2009 and will include a Water Board staff presentation describing current TMDL load allocation and implementation plan proposals followed by detailed discussions of LCCP concepts. Specifically, Environmental Incentives staff will define what a Lake Clarity Credit is, how credits will be used,

the linkage between credits and pollutant load reductions, and program structure. The agenda is structured to provide ample opportunity for stakeholder questions and feedback and Water Board staff are looking forward to hearing comments from implementing, funding, and regulatory partners on the proposed Lake Tahoe TMDL implementation approach and associated tools.

Following the stakeholder meeting in March, Environmental Incentives anticipates submitting a draft LCCP Handbook to Water Board staff in April 2009. The draft Handbook will be distributed to stakeholders in early May 2009 with a final Handbook scheduled for June 2009.

6. Notice of Postponement of Water Board Consideration of a Revised Timber Waiver – Douglas Cushman

In past correspondence the Water Board had tentatively scheduled to consider adoption of a revised Timber Waiver at its March 11-12, 2009 regular meeting. **The revised Timber Waiver will not be scheduled for action by the Water Board at its March 11-12 meeting.** It is now anticipated that the revised Timber Waiver will be considered for adoption at either the May 13-14, 2009 or the July 8-9, 2009 Board meeting.

Water Board staff has postponed the Timber Waiver so that comments received during the 30 day public comment period could be discussed with the commenters and other interested parties. I believe further consultation with stakeholders is warranted based on the nature and subject matter of the comments received. Postponing Water Board consideration of the revised Timber

Waiver will allow Water Board staff time to:

- contact stakeholders to discuss comments and answer questions
- further revise the proposed Timber Waiver document to address comments received,
- supplement the Initial Study to offer further clarification and evidence to support Water Board findings pursuant to CEQA.

Water Board staff received 13 comment letters during the 30 day public review. These letters are available for review online at <http://www.waterboards.ca.gov/lahontan/>

7. Water Board Staff Participate in Quarterly Tahoe Forest Fuels Team Meeting and Subsequent 2009 Project Planning Subcommittee Meeting – Douglas Cushman

The Tahoe Forest Fuels Team (Team) is a multi-agency and stakeholder group that is involved with the planning, permitting, and implementation of fuels reduction projects within the Tahoe Basin. The group is comprised of members of regulatory agencies, land management agencies, fire districts, research scientists, and the conservation community. The January 29, 2009, quarterly meeting was focused on briefing all participants on a process for implementing 2009 field season projects. The Team is modeled on an incident command system that incorporates multiple divisions which have specific inter-related tasks, with one commander overseeing all divisions. Water Board staff was asked to be active in the planning and contracting divisions. A planning division meeting was held on Feb. 18, 2009 and planning division

subcommittee members worked to develop a project delivery process template for use in planning projects for 2009 and beyond. The project delivery process is intended to aid project proponents in planning a project that has a comprehensive and long term approach for fuel reduction activities and Tahoe Basin processes.

It is anticipated that Tahoe Basin fuels treatments will be conducted in the 2009 field season by the USFS Lake Tahoe Basin Management Unit (1500 acres), California State Parks (200 acres), California Tahoe Conservancy, numerous fire protection districts (Meeks Bay FPD – 139 acres, Lake Valley FPD -- 171 acres, North Tahoe FPD – 300 acres), and on private lands not under the supervision of any of the above entities.

SOUTH BASIN

8. **Adelanto Public Utility Authority –** *John Morales*

The Adelanto Public Utility Authority (Authority) owns and operates the Adelanto Domestic Wastewater Treatment Facility, which collects, treats, and disposes an average daily flow of 2.2 million gallons per day (mgd) of domestic wastewater and sewage generated within the City of Adelanto. Population growth over the past five years has resulted in wastewater flows exceeding the 1.5 mgd design capacity of the facility. The Water Board issued a Cease and Desist Order (CDO) to the Authority in August 2007 because of effluent limit violations and unauthorized discharge outside of the permitted facility. The CDO required the authority to achieve compliance with its WDRs by December 2008.

The Authority is now constructing a plant expansion using a new technology called the Clean Screen Micro-media filtration process. This expansion will increase the plant capacity from the current 1.5 mgd to 4.0 mgd. Of this, 3.0 mgd will be handled by the new process and 1.0 mgd will be treated by the existing treatment facility.

The Authority had projected to complete construction and begin testing the new plant by December 31, 2008; however, construction of the treatment plant was delayed due to late delivery of control equipment.

9. **Lake Gregory Dredging –** *Cindi Mitton*

San Bernardino County Parks Department proposes to remove sediment along the shoreline of Lake

Gregory to increase volume in the lake and groom the beach and shoreline area, and has applied for a water quality certification for the dredging work. However, the County does not have the resources to complete a biological survey and mitigation plan for the riparian areas. Army Corps of Engineers, County and Water Board staff met onsite in January and cooperatively developed a two phase strategy to: 1) identify areas without riparian habitat so the County could design work ahead of the summer recreational use of the lake, and 2) identify areas with wetlands that will require a focused biological survey that can be implemented when the County has sufficient funding. The County proposes to excavate sediment below the high water line but above the current water level, so that the sediments will be dry when removed and the lake can be protected from the work area. As resources allow, the County may file an additional application for work in other areas.

10. **Heaps Peak Sanitary Landfill –** **Leachate Collection System Failure** **Resulted in a Discharge to Surface** **Water -** *Christy Hunter*

The County of San Bernardino (County), Solid Waste Management, reported that leachate was discharged to Shake Creek (a tributary to Deep Creek and thence the Mojave River) from the leachate collection system at the closed Heaps Peak Sanitary Landfill on February 10, and again on February 16, 2009. Recent snow storms in the San Bernardino Mountains caused power failures to the leachate collection pumps. Currently, the site is covered

with several feet of snow and access to the lower portion of the discharge point is by snow mobile only. The County estimated that the combined volume of leachate discharged is at least 34,000 gallons; however, an accurate total volume will be presented in the spill reports which are to be submitted in early March.

Primary constituents of concern (COCs) in the leachate include dissolved iron, manganese, total dissolved solids (TDS), and volatile organic compounds (VOCs). Concentrations of COCs in the leachate have been either above the water quality objectives for this drainage segment or are above water quality standards (background surface water) established for this landfill. Concentrations of COCs in the leachate may fluctuate due to the variable nature of the contributions from rainfall or snowmelt.

A Cleanup and Abatement Order was issued to the County in 1999 after a leachate collection pump failed and leach was discharged from the collection system to Shake Creek. In 1999, the County modified the leachate collection system to comply with the requirements of the CAO, including construction of a pipeline to divert leachate into storage tanks located at the top of the landfill.

The County has considered the feasibility of treating leachate on site and discharging the treated wastewater to Shake Creek under a National Pollution Discharge Elimination System (NPDES) Permit. In support of this effort, the County has initiated a Leachate Sampling and Analysis Program to develop a treatability analysis of the leachate. The County

has indicated an intention to have a permanent treatment system in operation by winter 2009/2010.

11. USGS Recharge Studies in Sheep Creek Wash – Mike Plaziak

The current state-wide drought and reduction of the State Water Project allocations to southern California have illuminated the importance of local groundwater basins to supplying the water demands for the region. The U.S. Geological Survey (USGS) has conducted a number of studies in the Mojave Desert to understand the physical connection between mountain headwater streams and downstream hydrologic systems. The USGS identified three large ephemeral streams in the South Lahontan Watershed that have significant groundwater recharge capacity: Sheep Creek Wash, Oro Grande Wash, and Big Rock Creek Wash. Board staff attended a presentation on Sheep Creek Wash by the USGS in January hosted by the Phelan Pinon Hills Community Services District and the Transition Habitat Conservancy (THC). The USGS presentation was a culmination of studies undertaken in Sheep Creek Wash to understand how the wash transfers water from mountain front recharge to the Oeste groundwater basin.

It is well understood that very little areal recharge to aquifers is produced by precipitation outside of desert washes. However, recharge in arid environments does occur from brief, concentrated surface flows in ephemeral stream channels that drain mountain headwater areas during storm events. Using temperature probes, numerical modeling

and groundwater chemistry data, the USGS found that deep infiltration of surface flows occurs along a 11.6 mile reach of the headwaters area of Sheep Creek Wash (approximately 470 acre-ft per year). The USGS also determined that deep percolation is less likely to occur in the drier toe sections of ephemeral washes that receive natural infiltration of less than 2 feet per year. These findings are important for the Pinion Hills CSD and the THC in determining how they can implement land use controls to protect the headwaters area from development that could impede deep percolation of flows or potentially pollute groundwater. Water districts are also interested in the USGS findings to determine the most productive locations in ephemeral wash areas for infiltration of imported water.

ENCLOSURE 6

Notification of Spills (Unauthorized Waste Discharges)

01-0028

EO'S Monthly Report
1/16/09 - 2/15/09
Unauthorized Waste Discharges

COUNTY: SAN BERNARDINO

Discharger/Facility	Location	Basin	Regulated Facility	Substance Discharged	Spill Date	Discharge Volume	Description of Failure	Discharge To	Status
Molycorp Minerals LLC / Molycorp Evaporation Ponds/Mine & Mill Site	Mountain Pass Mine, 100 feet north of Pond P-29, across from Engineering Building	S	Y	Specialty Plant Wastewater	1/16/2009	100 Gallons	A break in a 3-inch high density polyethylene (HDPE) pipeline caused an area of wet soil. It was determined that wastewater had been siphoned from the specialty plant wastewater holding tank to an HDPE pipeline. Sample results indicate a soil pH<3, and residue is 68% neodymium/praseodymium, and chloride. Wastewater known to have high TDS, chloride, and rare earth oxides.	Ground	The pipe was repaired. Affected soil excavated for disposal to appropriate facility. The pipeline discharge point was moved to a higher elevation at the holding tank. A pipeline check valve was installed. Water Board staff issued an NOV on February 10, 2009.
San Bernardino County / Heaps Peak Sanitary Landfill	Transfer Station	S	Y	Leachate	1/28/2009	2,000 Gallons	A rust spot developed in a leachate holding tank. The tank was taken off line, and the electrical equipment was removed. The tank was replaced but the telemetry was not immediately replaced due to inclement weather. Based on past flow data, overflow was not anticipated, but flow increased and overflow occurred.	Ground	The pumps were shut off and the tank emptied. The telemetry has been reinstalled. The overflowed material froze and was removed/cleaned up while still frozen. Further enforcement action under review.
San Bernardino County Solid Waste Division / Heaps Peak Sanitary Landfill	Leachate Holding Tank at base of landfill	S	Y	Leachate	2/10/2009	34,000 Gallons	An electrical outage of the power to the pump at the holding tank created an overflow to a tributary to Deep Creek.	Shake Creek	An NOV will be issued in early March 2009. Further enforcement action is under review.

01-0029

ENCLOSURE 7

Notification of Closure of Underground Storage Tank Cases

01-0030

CASE CLOSURE REPORT
March 2009
 State of California
 Lahontan Regional Water Quality Control Board

Date Closure Issued	Site Name	Site Address	Case Number	Case Type	Remaining Groundwater Concentrations above Water Quality Objectives (in ug/L)	Remaining Soil Concentrations (in mg/Kg)	Distance from Site to Nearest Receptor	Remedial Methods Used
No UST closures issued from January16-February15								

Notes:

TPHd = Total petroleum hydrocarbons quantified as diesel
 TPHg = Total petroleum hydrocarbons quantified as gasoline
 TRPH- Total Recoverable Petroleum Hydrocarbons
 NS-Not sampled

01-0031