



Lahontan Regional Water Quality
Control Board



EXECUTIVE OFFICER'S REPORT

October 2011

NORTH BASIN

1. ***Stream Gauges in Squaw Creek, Olympic Valley – Tom Gavigan***

In its 2007 approval of the Squaw Creek Sediment Total Maximum Daily Load, the State Water Board directed the Lahontan Water Board to continue to support the efforts of entities pumping groundwater as well as other stakeholders in Squaw Valley to: (1) minimize effects on Squaw Creek, (2) develop a groundwater management plan that recognizes potential effects of pumping on the creek and seeks to minimize or eliminate adverse effects on Squaw Creek, and (3) conduct a study of potential interaction between groundwater pumping and flows in Squaw Creek.

In 2008 the Lahontan Water Board granted \$20,000 (from the Red Dog Mitigation Fund) to the Friends of Squaw Creek (FoSC) and the Truckee River Watershed. The money was to fund a study to gain additional information related to the meadow and creek hydrology, such as stream gauging and stream flow measurements.

Through their consultant, Sound Watershed, the FoSC and TRWC used the funds to obtain, repair, maintain, and operate three stream gauging stations formerly owned by the Squaw Valley Public Service District (SVPSD). The three gauges are located on the South fork and North fork of Squaw

Creek, just above the Squaw Valley meadow, and on the mainstem of Squaw Creek at the downstream end of the meadow.

Sound Watershed developed rating curves for each site and collected water level and flow data. Discharge data for Squaw Creek can be found on the internet at: <http://squaw.soundwatershed.com/stream-flow-data.html>. Sound Watershed's contract was completed in July 2011. The collected data allow hydrologists to compare the hydrologic inputs (flows from tributaries above the meadow) and outputs (flows exiting the meadow) to estimate how much cumulative loss occurs within the meadow from year to year. Many factors affect the "losses", including natural evaporation, transpiration (uptake by vegetation), and groundwater pumping. These flow data will be used to help design and monitor restoration activities on Squaw Creek. They will also provide important data to the SVPSD to effectively manage the groundwater resources within Squaw Valley.

2. ***Participation in Work Group of the Truckee Regional Aquatic Invasive Species Prevention Program – Daniel Sussman***

In August staff attended a working group meeting of the Truckee Regional Aquatic

Invasive Species (AIS) Prevention Program. The Program is administered by the Tahoe Resource Conservation District (RCD) with the goal of preventing the introduction and spread of AIS in Donner Lake and Prosser, Boca, and Stampede Reservoirs. The Program currently offers voluntary inspection and decontamination services to boaters launching in the four lakes. The Program is assessing the risk of AIS introduction to these lakes and developing an appropriate prevention strategy.

The Program faces a number of challenges. Boaters using these lakes originate in a variety of places, primarily from Reno-Sparks to Sacramento. Unlike at Lake Tahoe, there is no single government entity that can regulate the entire Truckee River watershed. If boat inspections are to become mandatory, it will require consistent ordinances in Sierra County, Nevada County, and the Town of Truckee. The four water bodies present a practical challenge, too. While most boat launches at Donner Lake are from relatively easy to restrict boat ramps, access to Boca reservoir is mostly from dispersed shore access. Boats at Stampede and Prosser reservoirs are launched from a mix of boat ramp and shore access. Another challenge is funding and enforcing a prevention program.

To determine the appropriate approach to establishing a successful AIS prevention program, the Tahoe RCD staff is relying on partnerships with the local government, review of the risk assessment, and information from the public (see EO report, September 2011). Staff will continue to coordinate with Truckee Regional AIS Prevention Program, provide guidance on regulatory issues and permitting needs.

3. **Caltrans/Water Board 2011 Partnership Award - Bud Amorfini**

Caltrans and the Water Board staff is collaborating on an annual award to

recognize outstanding construction site storm water management by contractors working on water quality improvement projects in the Caltrans District 3/Lahontan Region. We plan on giving out one award per year to send a positive message to those working proactively and responsibly to control storm water pollution from highway construction projects. This is the first year the award will be given, and it will go to Diablo Contractors Inc., which is completing work the Highway 28 water quality improvement project from Tahoe City to Kings Beach. Diablo Contractors has been outstanding in managing their project to protect water quality and resolving issues in a timely manner. Caltrans and the Water Board believe recognizing outstanding contractor work will help encourage other contractors to raise their awareness of storm water issues and foster a more collaborative working relationship with project implementers.

4. **Leviathan Mine 2011 Field Season Completed, Alpine County – Chuck Curtis**

This year's field season for the Water Board's activities at the Leviathan Mine Superfund Site was mostly completed by mid-September. This year's activities were significant and included spring treatment of acid mine drainage (AMD) that collects in the ponds at the Site, removing and disposing of the dried sludge from last year's treatment, summer treatment of AMD, and paving roads in the upper part of the Site.

The spring treatment activities ran from April 1 through May 31 and included clearing snow from the road to the Site, mobilizing a portable lime treatment system to Pond 3, and treating 7.3 million gallons of AMD in a series of 15 batches. Treated water was discharged to the creek. Sludge from the spring treatment activities was deposited on the bottom of Pond 3, where it has been drying during the summer. The sludge in

Pond 3 will be removed and transported for disposal before the end of September. The spring treatment prevented the potential overflow of millions of gallons of untreated AMD from the ponds to Leviathan Creek.

Our 2011 summer treatment work started with removal and disposal of sludge in June that was generated during our 2010 summer treatment season. Summer treatment at the Water Board's Pond 1 treatment plant began on July 13 and lasted through August 25. The summer treatment resulted in 9.8 million gallons of treated discharge from the system. Together with the spring treatment, a total of 17.1 million gallons of AMD were treated by the Water Board's contractors. That amount is the second most ever treated at the site. The large amount of treatment needed is a result of last winter's heavy precipitation, which increased the flow of AMD from subsurface sources to the ponds and caused a significant amount of direct precipitation on the ponds. The Water Board's contractor has winterized the treatment system and has demobilized from the site.

The road paving project at the Site occurred over about a month period in late July and early August. Preparation of the road base required mixing lime to a depth of one foot into the existing dirt road material throughout the area of paving. The actual asphalt paving occurred over two days in early August. A total of 70 loads of asphalt were delivered, spread, and compacted during the two paving days. Significant coordination of truck traffic was required, and there were no problems reported during the operation. The paving contractor watered the Leviathan Mine Road during the operation, and there were no complaints of dust or other issues from residents who live along the first couple miles of road near Highway 395. The paved roads in the area of the Site that Water Board staff and contractors work will significantly improve site conditions

associated with muddy roads in the spring and dust in the summer.

Staff will be completing winterization of the Water Board's work trailer at the Site and other minor maintenance work, including overseeing fence repair work, during late September and early October. Work on the 2011 Year-End Report is ongoing, and will be due to the US Environmental Protection Agency in late January.

SOUTH BASIN

5. **Risk Assessment Evaluation – Jehiel Cass**

The Water Board has responsibility to require and oversee cleanup operations when groundwater is contaminated. The Water Board has the authority to set cleanup goals ranging from background concentrations of the constituent of concern up to the concentrations protective of beneficial uses. Where feasible, the Water Board generally sets cleanup goals at background concentrations. Where cleanup to background soil or groundwater cleanup levels is infeasible and levels above background are considered, the Water Board must choose a cleanup standard so as not to pose a risk to human health or the environment, in addition to other factors. This requirement is in the Lahontan Basin Plan, State Board Policy Resolution No. 92-49 and is a decision-making component when addressing contamination from Underground Storage Tank sites, Land Disposal sites, other spill sites and cleanup at the Department of Defense sites.

For these sites, the Water Board must consider risk and may conduct a risk assessment. Evaluation of risk may be quantitative or qualitative. A quantitative risk assessment follows established protocol. The CA Department of Toxics Substances Control and some larger Water Board offices have trained toxicologists on staff. The Lahontan Water Board has no toxicologists. However, the State Board contracts with the CA Office of Environmental Health Hazard Assessment, allowing toxicologists from that agency to review cleanup projects and make recommendations regarding risks. For sites where the Water Board is the lead agency for cleanup oversight, the Water

Board is ultimately responsible to ensure that cleanup project proposals and resulting soil and groundwater cleanup levels reduce the risk to human health and environment to acceptable levels.

Staff is currently working with the CA Office of Environmental Health Hazard Assessment staff to review a risk assessment prepared by the Air Force under the Department of Defense program for the former George Air Force Base. The Air Force is remediating over five million gallons of jet fuel remaining in and on the groundwater. Interim remediation (soil vapor extraction and free product skimming) is ongoing while additional data are being collected to evaluate long term cleanup options. In the future, a final Corrective Action Plan will be brought to the Water Board for considering acceptable risk, cleanup levels and time frame. Staff may also request similar assistance to evaluate risk issues related to cleanup at the Molycorp Mine and Mill.

Risk management decisions are made on a case-by-case basis and must balance risk reductions associated with contaminant cleanup with the potential impact of the remediation action itself. The Basin Plan states that cleanup levels at a minimum must be set to maintain an excess upper bound lifetime cancer risk of less than 1 in 10,000 (10^{-4}) or a cumulative non-carcinogenic Hazard Index (as defined by USEPA) level of < 1 . The Basin Plan also requires for all sites where risk assessments are performed, cleanup levels to 1 in 1,000,000 (10^{-6}) cancer risks must be considered. Ecological receptor evaluations are more complicated, but also must be considered. Based on these other factors (1 in 1,000,000, cancer risks and ecological impacts) the Water Board may

set cleanup levels that are more restrictive than the minimum levels described above.

Risk management tools may be used to reduce risk. Options include measures such as land use restrictions to control access, prevent residential use, allow only industrial use (because there is less risk exposure), or prevent groundwater pumping. Where there is less than a 1 in 1,000,000 (10^{-6}) increased cancer risk or a non-carcinogenic Hazard Index of < 1 , the risk is typically considered acceptable for unrestricted uses.

If a cleanup site is not available for unrestricted use further cleanup or imposition of land use restrictions or other risk management options is required.

6. **Hometown America – Los Ranchos Mobile Home Park** – John Morales

The Los Ranchos Mobile Home Park in the Town of Apple Valley has two percolation ponds used as a wastewater disposal site for the secondary treated effluent from its packaged treatment plant.

In the past, these percolation ponds have been the subject of complaints for violation of the Waste Discharge Requirements (WDRs) pertaining to maintaining freeboard. In response to enforcement actions, the Discharger has begun an alternating routine maintenance program of draining one pond at a time while the other pond remains in operation. This allows the bottom of an empty pond to be scarified to improve its percolation efficiency.

Recently, complaints from residents of the mobile home park consisted of witnessing the Discharger perform unauthorized discharges including the placement of wet sludge on bare soil of a dike from a percolation pond. Water Board staff issued

a Notice of Violation (NOV) for violating the WDRs.

Shortly after receiving the NOV for this unauthorized discharge, the Discharger dumped dry organic waste from the scarified bottom of one of the percolation ponds onto bare soil in the adjacent open desert on private property. Water Board staff issued another NOV for this violation as well. Water Board staff inspected the site and verified that the dry organic waste had been removed from the adjacent desert area.

The NOV, required that the Discharger submit a report that discusses items such as the cleanup and disinfection efforts and proof of notification to the owner of the adjacent parcel that wastes were removed.

Hometown America is currently in compliance with a Cleanup and Abatement Order (CAO). The focus of the CAO is to bring the Discharger into compliance with the WDRs regarding odor emissions from the mobile home park's treatment plant. The Discharger has implemented various operational procedures and equipment that has successfully brought the odor emissions under control to the extent where the residents are no longer complaining.

The Discharger has also been in compliance with waste discharge requirements for maintaining proper freeboard levels.

Water Board staff will continue to conduct follow-up inspections to verify that odor and freeboard violations do not occur.

7. **Searles Valley Minerals, Compliance Status** – Omar Pacheco

Compliance Status

Effluent monitoring data from the Trona, Argus, and Westend Plants indicates compliance with the waste discharge requirements throughout the semi-annual reporting period. Additionally, the company is implementing the supplemental environmental and compliance projects required by the Administrative Civil Liability Order.

Spill Events

Searles Valley Minerals (SVM) reported a total of two spills during this reporting period for the Argus Facility. The release of an estimated 300 gallons of monoethanolamine and a release of an estimated three ounces of mercury both occurred within the plant. SVM contained and cleaned up the spills. Based on our review of the action taken by SVM, Water Board staff concluded that cleanup was complete and that no further action was needed.

Bird Mitigation Project

The Off-site Bird Mitigation Project located at Owens Lake continues to be in operation. The Project consists of three ponds; one 80 acre pond, one 15 acre pond, and one 35 acre pond. Operation and management activities are performed by the Dirty Socks Duck Club. These activities include well operation and maintenance, repair strategies for berms and roads, and water management for the benefit of waterfowl and vegetation. Searles Valley Minerals contributes resources to restore bird habitat to mitigate avian mortality at its disposal and operations ponds. Operation and

maintenance cost of the mitigation project are satisfactorily being met yearly by SVM. Vegetation planted along the edges of the ponds is healthy and growing, and the vegetation zone is increasing. The project continues to be wetted and maintained, and birds are using it. Current operation and management practices are expected to maintain a long-term 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 current bird mortality rate has decreased by 34% from last year. Bird mortality is not anticipated to exceed the annual California Department of Fish and Game's take permit. A graph showing historical bird data is provided at the end of this report.

8. **City of Barstow Compliance with Enforcement Orders** – Ghasem Pourghasemi

The City of Barstow (City) continues to comply with the following orders:

- 13267 Investigative Order for a groundwater investigation
- Cleanup and Abatement Order
- Cease and Desist Order to abide by the Waste Discharge Requirements (WDRs) for the Barstow Wastewater Treatment Plant.

Groundwater Investigation

Groundwater monitoring data from the second quarter of 2011 showed that the Nitrate plume along the Soapmine Road is still contiguous and moving southeast. The

City of Barstow submitted an amended final Remediation Action Plan to clean up the groundwater along the Soapmine Road area and along the south side of the Mojave River. The City also submitted a work plan for an extraction well to conduct a larger aquifer test extracting a greater amount of groundwater than the previous test. Water Board staff are reviewing the alternatives proposed in the report and work plan. Water Board staff are in the process of requiring the City to move ahead with design and installation of a contaminated groundwater pump and treat system.

Plant Upgrade

The City completed an upgrade of the wastewater treatment plant in July 2009 and subsequent monthly reports indicate that the wastewater treatment facility is in compliance with the Water Board Order. The nitrate concentration was below 10 mg/L and total nitrogen was also less than 10 mg/L for the last 12 months of operation. The City on its own initiative is preparing to upgrade part of the treatment facility that includes replacement of the primary clarifier.

Soapmine Road Replacement Water

The City continues to conduct residential well sampling of 37 drinking water wells in the Soapmine Road area, as required by the Cleanup and Abatement Order. Currently, the City is supplying 33 residences with uninterrupted replacement water service (bottled water) for residences where nitrate has been detected at concentrations at or exceeding 5 mg/L nitrate-as N. The analytical results for the second quarter of 2011 monitoring event shows that two private wells exceeded the maximum contaminant level (MCL) for nitrate-as N of 10 mg/L and a total of

twelve private wells showed nitrate-as N concentrations exceeding 5 mg/L.

There are 33 homes served by 12 wells over 5 mg/L Nitrate (i.e. There are some wells that have more than 1 residence connection).

There are 25 wells below 5 mg/L, 10 wells between 5 mg/L and 10 mg/L and 2 wells above 10 mg/L

Status of Task Completions

A table showing the status of compliance is included at the end of this report.

9. Dairy Update - Ghasem Pour-ghasemi

Water Board staff are moving forward with the implementation of the Board's dairy strategy. A Cleanup and Abatement Order (CAO) had been issued to one of the dairies for the cleanup of manure stockpiles, and to provide a nutrient management plan (NMP). Stockpiles are reduced by more than 70 percent at this time and should be completely removed by early January next year. Also the dairy has submitted its NMP. In August Water Board staff issued another CAO to the same dairy requiring the implementation of the NMP and some other corrective actions.

Water Board staff have issued four Investigative Orders to four different dairies requiring them to sample residential wells around the dairies for nitrate and total dissolved solids (TDS). The Investigative Orders required two sampling rounds of residential wells and a final report. Sampling and analyses took place between January and mid-April and the final reports were filed in June. The analyses showed nitrate and TDS level over the maximum contaminant levels in some wells downgradient of these dairies. In August

Water Board staff issued four additional CAOs to the same dairies requiring them to provide bottled water for consumption and cooking for the residents that are affected by dairy operations. Approximately 30 residents will receive bottled water from these dairies.

At the end of May 2011 Water Board staff issued twelve more 13267 Investigative Orders to twelve different dairies requiring them to submit a NMP for their operations. The NMP submittal dates are different for each dairy and are based on risks to water quality from existing on-site practice. The Natural Resources Conservation Service (NRCS) will prepare a NMP at no cost to the dairies. Three of the NMPs are due in December, four in 2012 and the remaining five are due in 2013.

In early September, Water Board staff had another meeting with the dairy operators, Western United Dairymen, Mojave Desert Resource Conservation Service, and NRCS to discuss the importance of developing and implementing the required NMPs.

10. **County Sanitation District No. 20 of Los Angeles County (District), Palmdale Water Reclamation Plant, Los Angeles County – Mike Coony / Linda Stone**

Cleanup and Abatement Order

The District is continuing work on achieving complete compliance with a Cleanup and Abatement Order (CAO) issued in 2003 to address high levels of nitrogen in groundwater. The CAO requires the District to delineate groundwater nitrate contamination, develop a remediation plan, implement a remedial action plan, and reduce the amount of nitrate reaching groundwater. The District submitted Containment and Remediation Plan

Supplement No. 4, which included an updated mathematical modeling and analysis plan of cleanup alternatives. Based on the model, areas of groundwater with nitrate (as N) concentrations exceeding 10 mg/L are predicted to decrease in each alternative. Areas containing concentrations of nitrate (as N) exceeding 7 to 8 mg/L are projected to remain at the end of the 55-year simulation period, for all alternatives including the Aggressive Remediation Alternative. The concentrations and extent of nitrate in groundwater are predicted to decrease relatively slowly during the last 20 years of the simulated period for all four alternatives. As an interim remedial measure, the District has implemented the alternative that includes improved effluent management, construction and operation of six groundwater wells, construction of reservoirs for effluent storage for reuse, and natural attenuation.

Waste Discharge Requirements

Waste Discharge Requirements (WDR), previously in numerous orders and amendments, were combined into a single order, Order No. R6V-2011-0012, in March 2011. Ongoing monitoring and requirements to apply water and nutrients at or below agronomic rates are imposed through this Order.

The District is completing construction of the Activated Sludge Nitrification/Denitrification Tertiary Treatment Facility Project at the Palmdale Water Reclamation Plant. The project will initially produce title 22 tertiary effluent for irrigation at the Palmdale Agricultural Site. The District submitted the title 22 engineering report in August. California Department of Public Health staff is reviewing the report as required under title 22 requirements.

Status of Task Completions

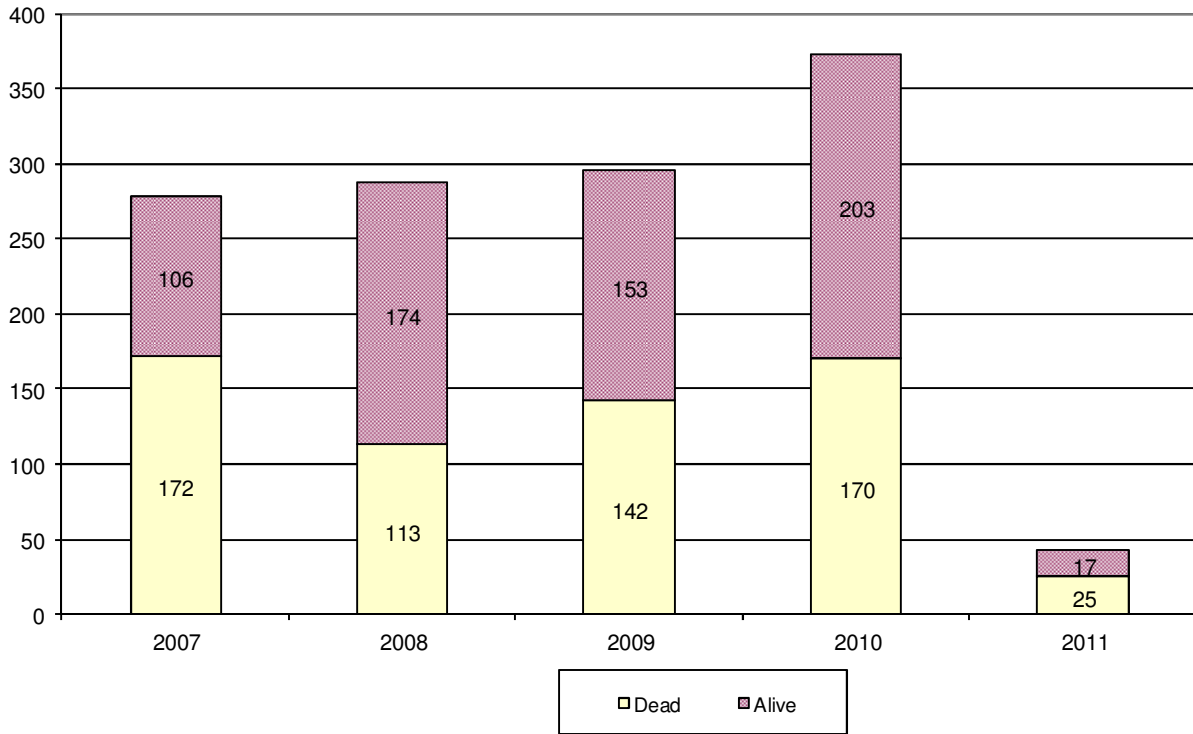
A table showing the status of compliance is included at the end of this report.

11. ***County Sanitation District No. 14 of Los Angeles County (District), Lancaster Water Reclamation Plant, Los Angeles County – Mike Coony***

Please see Agenda Item No. 6 on the October 2011 Water Board Meeting Agenda.

A table showing the status of compliance is included at the end of this report.

Birds Collected at SVM Operations



SCHEDULE OF TASKS
PALMDALE WATER RECLAMATION PLANT (PWRP)
COUNTY SANITATION DISTRICT NO. 20 OF LOS ANGELES COUNTY (DISTRICT)

PERFORMANCE TASK	DUE DATE	STATUS
Required by Cleanup and Abatement Order R6V 2003-056		
Plume Delineation		
1.1.1 – Submit a plan to delineate the nitrate plume to background levels	Feb 16, 2004	Met
1.1.2 – Complete plume delineation	Aug 15, 2004	Met
Plume Containment		
1.2.2 - Submit a final plan (including extraction well locations and pumping rates) and time schedule for containing the plume	Sept 15, 2004	Met
1.2.3 – Achieve plume containment	Sept 30, 2005	Not met
Plume Remediation		
1.3.1 - Submit a plan describing the proposed plume remediation describing how ground water will be restored to background or propose alternative cleanup levels pursuant to SWRCB Resolution 92-49	Sept 15, 2004	Not met - In progress
1.3.2 – Implement the proposed plan for ground water extraction and agricultural irrigation (or an equally acceptable alternative)	Sept 15, 2005	Not met — In progress
Abatement		
2.1 – Submit a plan describing proposed abatement actions	March 31, 2004	Met
Reporting		
3.2 – Submit quarterly status reports until remediation is complete including actions completed in the last three months and expected in the next three months report	February 1, May 1, August 1, and November 1	Ongoing
Required by: Monitoring and Reporting Program No. R6V-2011-0012		
Provide revisions to Sample and Analysis Plan at least 30 days before implementation	When revised	Met
II.B.5 – Submit an Annual Cropping Plan	Nov 15 of each year	Ongoing
II.B.1 – Submit monthly monitoring reports for	15 th working	Ongoing

PERFORMANCE TASK	DUE DATE	STATUS
<ul style="list-style-type: none"> - Flow Monitoring - Influent Monitoring Report - Effluent Monitoring Report - Operation and Maintenance Report - Recycled Water Treatment and Use Report 	day of the second month following each monthly monitoring period	
II.B.3 – Submit quarterly reports for <ul style="list-style-type: none"> - Groundwater Monitoring Report - Groundwater Extraction Operations Report - Agricultural Site Monitoring Report - Agricultural Vadose Zone Monitoring Report - Agricultural Site Monitoring, Operations, and Chemical Use Monitoring Report - Chemical Use Monitoring Report - Storage Reservoir Site Vadose Zone Monitoring Report - Biosolids Storage and Disposal Report 	15 th working day of the second month following each quarterly monitoring period	Ongoing
II.B.4. – Submit annual reports for <ul style="list-style-type: none"> - Treatment plant - Groundwater monitoring 	March 1 st of each year	Ongoing
Required by Resolution No. R6V-2005-0010		
A. - Discharger should initiate cleanup project to reduce nitrate concentrations in groundwater to less than 10 mg/L as N, as soon as possible	As soon as possible	In progress
B. - Discharger should submit an evaluation for additional options for remediation of groundwater after the 10 mg/L as N level is achieved. Focus should be on less than 2 mg/L as N (background), which will be used to establish the final cleanup standard	Apr 13, 2006	Not met — further analysis on-going

SCHEDULE OF TASKS
LANCASTER WATER RECLAMATION PLANT (LWRP)
COUNTY SANITATION DISTRICT NO. 14 OF LOS ANGELES COUNTY (DISTRICT)

PERFORMANCE TASK	DUE DATE	STATUS
Required by Waste Discharge Requirements		
Board Order R6V 2002-053		
Board Order R6V 2002-053A1 (Adopted 7/13/2005)		
Nuisance Condition		
II.B.4. - Complete project to eliminate nuisance condition created by effluent induced overflow from Piute Ponds to Rosamond Dry Lake	August 25, 2005	(Extended under Cease and Desist Order R6V-2004-0038A1)
Required by: Waste Discharge Requirements		
Board Order R6V 2002-053A2 (Adopted 3/14/2007)		
Engineering Reports (Tertiary Treatment Plants)		
II.B.1. – Acceptance of engineering report for 15-mgd tertiary treatment plant by Executive Officer.	Before discharging from plant	Report submitted, Public Health reviewing report.
II.B.2. – Acceptance of engineering report for MBR tertiary treatment plant with UV disinfection by Executive Officer.	Before discharging from UV system	Issued July 9, 2009
Farm Management Plan (Agricultural Site)		
II.C.1. – Submit farm management plan for Fields 7 & 8, and 11 – 20	Submit report nine months before irrigation in fields	Met
Vadose Zone Monitoring (Agricultural Site)		
II.D.1. – Submit vadose zone monitoring plan (if an alternate plan is proposed) for Fields 1 - 6, 9 & 10	June 14, 2007	Met
II.D.1. – Implement vadose zone monitoring plan for Fields 1 - 6, 9 & 10	March 14, 2008	Met
I.H.3. (MRP) – Submit vadose zone monitoring plan for Fields 7 & 8 and 11 – 20	One year before irrigation	Met
Groundwater Monitoring (Agricultural Site)		
II.E.1. – Complete groundwater sampling for data needed to calculate existing water quality for Fields 1 through 8	June 30, 2007	Met
II.E.1. - Submit results of calculations for determining existing water quality for Fields 1 through 8	October 30, 2007	Met
II.E.2.a. - Submit workplan for installing additional monitoring wells for Fields 9 through 12	April 20, 2007	Met

PERFORMANCE TASK	DUE DATE	STATUS
II.E.2.a. - Complete installation of additional monitoring wells for Fields 9 through 12	June 15, 2007	Met
II.E.2.b. – Complete groundwater sampling for data needed to calculate existing water quality for Fields 9 through 12	September 30, 2007	Met
II.E.2.b. - Submit results of calculations for determining existing water quality for Fields 9 through 12	January 30, 2008	Met
II.E.3.a. - Submit workplan for installing additional monitoring wells for Fields 13 through 20	Submit report one year before irrigation in fields	Met
II.E.3.b. - Submit results of calculations for determining existing water quality for Fields 13 through 20	Complete before irrigation in fields	Met (Submitted on Mar 29, 2011)
Abandoned Wells (Agricultural Site)		
II.F. – Submit report demonstrating that destruction of abandoned wells have been completed for Fields 13 – 20	Submit report three months before irrigation in fields	Met (Submitted Feb 7, 2011)
Run On and Run Off Controls (Agricultural Site)		
II.G.1. – Submit report demonstrating that run on and/or run off controls have been implemented for Fields 1 - 6	Submit report one month before irrigation in fields	Met
II.G.1. – Submit report demonstrating that run on and/or run off controls have been implemented for Fields 7 - 20	Submit report one month before irrigation in fields	Submitted report for Fields 11 and 12
Required by: Waste Discharge Requirements Board Order R6V 2006-0051		
II.A. - Submit workplan for installing additional monitoring wells for the proposed storage reservoirs	April 9, 2007	Met (Submitted 16 days late)
II.B.1 - Submit the final design for the proposed storage reservoirs	Before constructing the reservoirs	Met
II.B.2 - Submit a construction QA/QC program for the proposed storage reservoirs	Before constructing the reservoirs	Met
II.B.3 - Submit certification that proposed reservoirs were constructed as proposed	Before use of the reservoirs	Met (Submitted Apr 13, 2011)
Required by: Cease and Desist Orders Board Order R6V-2004-0038 Board Order R6V-2004-0038A1 (Adopted 11/29/2007)		
I.A. – Divert 24 MG of effluent and discharge to an alternative legal disposal point (e.g., Apollo Park) other than Piute Ponds (Note: Contained in R6V-	Between December 1, 2004 and Mar 31,	Less than 24 MG diverted

PERFORMANCE TASK	DUE DATE	STATUS
2004-0038. Not rescinded.)	2005	
II.A. – Divert 192 MG of effluent that would otherwise be discharged to Piute Ponds and dispose of this volume at an alternative legal point of disposal.	Between April 1 and October 31 of each year	Met. In 2008, diverted 274 MG. In 2009, diverted 242 MG. In 2010, diverted 207.5 MG.
II.B. – Divert the effluent volume (calculated as specified in CDO) that would otherwise be discharged to Piute Ponds and dispose of this volume at an alternative legal point of disposal. Calculated volume equals 156 MG minus an adjustment if there is above-average rainfall.	Between November 1 and March 31 of the following year	Met in 2007-08, 2008-09, and 2009-10, and 2010-11.
III. – Eliminate the effluent-induced overflows from Piute Ponds to Rosamond Dry Lake	November 1, 2010	Under evaluation. Winter 2010-11 overflows occurred only when Air Force requested overflows.
V. – Submit quarterly status reports until final compliance achieved	February 1, May 1, August 1, and November 1	Ongoing

SCHEDULE OF TASKS <u>Barstow Wastewater Treatment Plant</u>		
PERFORMANCE TASK	DUE DATE	STATUS
Required by: Cease and Desist Order Order No. R6V-2004-0029 (July 27, 2004)		
The treatment plant effluent discharged shall not exceed 26 mg/L as N (30-day average)	July 27, 2004	Met
Biosolids must not be applied at the irrigation sites	July 27, 2004	Met
Submit a Facilities Improvement Report	December 31, 2004	Met
Submit a Long Term Action Plan to achieve compliance with WDRs by July 30, 2009	November 12, 2004	Met
Submit a Final Compliance Plan to achieve compliance with the WDRs by July 30, 2009	August 4, 2006	Met
Achieve Final Compliance with WDRs	July 30, 2009	Met
REPORTING		
Submit a Farm Management Plan	December 31, 2004	Ongoing: Met
Submit Quarterly Status Reports until final compliance is achieved	By October 15, 2004; and quarterly thereafter	Met
Required by: Cleanup and Abatement Order No. R6V-2007-0017 (May 25, 2007)		
Supply interim uninterrupted replacement water service to residences served by private domestic wells within the Soapmine Road area in which nitrate has been detected at concentrations at or exceeding 5 mg/L nitrate nitrogen	Starting May 27, 2007	Ongoing: Supplying bottled water
Submit a Technical Report listing all residences that have been provided interim replacement water	May 30, 2007	Met
Notify all parcel owners and residents in the Soapmine Road area that nitrate nitrogen concentrations in groundwater may exceed the MCL of 10 mg/L	June 1, 2007	Met

Quarterly sampling of all private domestic wells within the Soapmine Road area	By September 30, 2007 and quarterly thereafter	Ongoing: Met
Submit Certified laboratory results for all potentially affected private domestic wells and a list of residences with nitrate nitrogen concentrations at or exceeding 5 mg/L in their supply water	By October 15, 2007 and quarterly thereafter	Ongoing: Met
Submit detailed Alternative Water Supply Implementation Work Plan	August 15, 2007	Met
Required by: Investigative Order to submit technical report in accordance with Section 13267 (May 18, 2007) Revised on (January 28, 2008)		
1. Interim Remediation Plan	June 30, 2007	Met
2. Groundwater Investigation Work Plan	June 30, 2007	Met
3. Revised Remedial Investigation Report (RRIR)	February 5, 2008	Met
4. Remediation Plan (referred to as Revised Interim Remedial Action Report (IRAP))	February 29, 2008	Met
5. Background, Seasonality, and Migration Report	9/26/2008, new report due 12/18/09	Met
6. Final Remediation Plan	January 14, 2011 extended from June 1, 2010 extended from November 30, 2009 extended from March 27, 2009	Ongoing
Required by: Investigative Order No. 2009-0010 to submit technical report in accordance with Section 13267 February 17, 2009 Revised on (March 30, 2009)		
Status Report on effort to site the wells	March 16, 2009, revised to April 20, 2009	Met
Well Installation Work Plan	April 24, 2009, revised to May 26, 2009	Met
Technical Report on the Additional Investigation Results	July 31, 2009	Met on March 9, 2010