

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LAHONTAN REGION  
MEETING OF MARCH 9-10, 2016  
SOUTH LAKE TAHOE**

<b>ITEM 11</b>
<b>EXECUTIVE OFFICER'S REPORT</b>

<b>ENCLOSURE</b>	<b>ITEM</b>	<b>BATES NUMBER</b>
<b>1</b>	Executive Officer's Report	<b>11-5</b>
<b>2</b>	Standing Items	<b>11-23</b>
<b>3</b>	Notification of Spills	<b>11-27</b>
<b>4</b>	Notification of Closure of Underground Storage Tanks	<b>11-31</b>

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# **ENCLOSURE 1**

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## State and Regional

### 1. Combined Remediation Technologies Training - Lisa Dernbach

The National Ground Water Association sponsored training in San Francisco in January 2016, titled "Combined Technologies: Technology Integration to Expedite Closure." The training included a dozen presentations from staff with the USEPA, San Francisco Bay Water Board, consultants, and an in-situ product manufacturer. By combining and integrating in-situ treatment technologies at the start of a groundwater remediation effort, groundwater and soil can be restored more quickly. Such technologies include air sparge/soil vapor extraction, zero valent iron, bioremediation, thermal treatment, and oxygen-releasing compounds. Currently, responsible parties often wait to propose alternate technologies until after the first implemented technology shows an asymptotic curve on graphs indicating poor returns over a period of time.

The shift to integrate and/or combine technologies sooner in the clean-up process at contaminated sites hastens cleanup improves treatment efficiency and conserves funds. This integration may be temporal where technologies are connected in a logical sequence (i.e., treatment train), or in a spatial manner where different technologies are used to address different site conditions. One presentation compared costs of current practices of using one technology at a time versus costs for integrating and combining one or more technologies. It was demonstrated the latter process could achieve site closure criteria cleanup quicker and with a cost savings ranging from 20% to 40%. U.S. EPA staff stated they support the combined technologies process to expedite closure whether at private sites or federal sites, including Superfund and Department of Defense facilities. Restoring the environment more faster than is currently being done reduces risks to public health and safety and allows expanded use of the property and groundwater much sooner than otherwise would occur.

Water Board staff can incorporate knowledge from this training at sites where remediation has been underway for more than ten years. These sites could be where current pump and treat methods are showing minimal returns or where silt/clay soils are preventing further cleanup. In the former case, all of the in-situ technologies described above may be good candidates for the next sequence of remediation. In the latter case, thermal treatment has shown excellent results at remediating volatile organic compounds, such as PCE, from tight soils and hard to reach areas, such as beneath foundations.

## **2. Land Application Public Education and Outreach - Brianna St. Pierre**

The State Water Board adopted *Statewide General Waste Discharge Requirements for Composting Operations* (General Composting Order) that requires water quality protection measures at existing or new composting facilities. The Department of Resources, Recycling and Recovery (CalRecycle) has an 'Organics Policy Roadmap' that identifies the need to compost more organic materials and reduce what is disposed in landfills (reduce the amount of organics being landfilled by 50 percent by 2020). New regulations for land application of green material were adopted under CalRecycle's purview. The requirements include thickness for application of green material, zoning restrictions, and permissible contaminants levels. State Water Board and CalRecycle staff recognize the need for public outreach, education, and collaboration with the local enforcement agencies (LEAs). State Water Board, met with CalRecycle and LEA staff met at the LEA winter roundtable meetings throughout the State in January 2016.

Brianna St. Pierre attended the LEA meetings in San Diego and Fresno to meet with State Water Board, CalRecycle staff, and LEA staff from San Bernardino, Inyo, Kern, and Los Angeles Counties. Water Board staff focused on meetings with these specific counties as these counties have been most impacted by land application issues. During these meetings, the requirements of both CalRecycle and Water Boards were discussed, including examples where authorities may overlap and/or differ. The importance of collaboration was discussed between the agencies as LEA staff generally have a greater field presence than Water Board staff. Water Board staff, State Board, CalRecycle, and LEA staff used this opportunity to meet in a face-to-face environment as well as to discuss collaboratively the various regulations under the purview of each of the agencies and how to best utilize the strengths of various regulations. We plan to continue participating in these meetings. CalRecycle and State Board staff plans to present this topic next in a forum with industry stakeholders.

## **3. Corporate Guarantees, Financial Means Test, and Financial Assurances**

- Brianna St. Pierre

Water Board staff have received several requests from dischargers to utilize corporate guarantees and financial means tests to meet the financial assurance mechanism requirements of California Code of Regulations (CCR), title 27, in lieu of bonds or letters of credit. CCR, title 27, requires financial assurance mechanisms to cover the costs of closure, post-closure, and corrective action for a known or reasonably foreseeable release for land disposal facilities. These types of facilities include landfills, mines, composting operations, and other waste management units such as surface impoundments and waste piles. CCR, title 27, sections 22246 and 22247 describe financial means test and corporate guarantee to meet the objectives of financial assurance requirements, respectively. CCR, title 27, section 22247, subdivision b, details the information required in the financial means test, which must first be passed to facilitate obtaining a corporate guarantee. The financial means test, CCR, title 27, section 22246, subdivision h.3.B., requires an independent Certified Public Accountant (CPA) to make a statement that "no matters came to his or her attention that caused him or her to believe that the specified data should be adjusted," which is a negative assurance. However, CPA's no longer consider this type of negative assurance a Generally Acceptable Accounting Practice (GAAP). Therefore, even though CCR, title 27 allows financial means tests and corporate guarantees to

be performed to meet the financial assurance objectives, accounting practices no longer makes these options possible.

The Department of Toxic Substances Control and United States Environmental Protection Agency have come up with an “agreed upon procedure” in lieu of the negative assurance. However, State Water Board has not developed an equivalent procedure for the Water Boards to use. Water Board staff have had requests from dischargers wishing to utilize the corporate guarantees and financial means test to fulfill the financial assurance requirements. Because the use of a different procedure to meet the objectives of CCR, title 27, sections 22246 and 22247 is a discretionary action, this would need to be done on a project-level basis with Water Board approval.

Alternatively, we could propose a region-wide procedure to be adopted by the Water Board. For example, we could require a CPA to make a positive assurance that there are sufficient funds available to meet the financial assurance requirements of CCR, title 27. However, this may require a substantial amount of staff time as well as consultation with attorneys and CPAs to ensure there were no conflicts with GAAP. Water Board staff continue to discuss this issue in terms of priorities with State Board staff. In the interim, Water Board staff direct dischargers to meet the financial assurance requirements utilizing other means acceptable to the Water Board, such as bonds or letters of credit.

#### 4. Upper Truckee River Marsh Restoration -*Laurie Scribe*

The California Tahoe Conservancy (CTC) is proposing the Upper Truckee River and Marsh Restoration Project. The project area is approximately 600 acres and includes the most downstream reaches of both the Upper Truckee River and Trout Creek, between Highway 50 and Lake Tahoe within the boundaries of the City of South Lake Tahoe. The Upper Truckee River and Trout Creek are the first and second largest watersheds in the Tahoe Basin.

In December 2015 the CTC Board certified the joint California Environmental Quality Act/ National Environmental Policy Act (CEQA/NEPA) Final Environmental Impact Report/Environmental Impact Statement, and approved the project, including expenditures of funds to complete final design plans and proceed with project implementation. The final CEQA/NEPA document still needs approval from the Tahoe Regional Planning Agency and the Bureau of Reclamation; these approvals are expected to occur in 2016.

Development in the late 1950's through the 1970's significantly altered the marsh; most notably through the excavation and filling of wetlands to create the Tahoe Keys home pads, marina, and lagoons, and through dredging and channelization of the downstream portion of the Upper Truckee River. This development disturbed approximately 600 acres of wetlands in the center of the original marsh.

The marsh restoration project's approved preferred alternative includes construction of a small pilot channel that will reconnect the current river alignment to historic channels and lagoons in the center of the marsh. The river will form its own pattern and spread over the expanse of the marsh, resulting in substantial benefits to habitats, wildlife, and water quality. The abandoned sections of existing river channel will be mostly filled to create restored meadow and expanded wetlands.

Additional elements of the preferred alternative include disconnecting the Sailing Lagoon from the Tahoe Keys Marina and reconnecting it to the river, lowering sections of the existing floodplain in the southern project area to raise groundwater levels and improve wildlife habitat, and installation of high-flow culverts under U.S. Highway 50 at the river crossing to improve the floodplain just downstream. The preferred alternative also includes recreation infrastructure improvements on the west side of the study area, including construction of two small viewing areas, a fishing platform, a kiosk, and a small increase in the length of the improved trail to Cove East Beach. See the enclosed map showing the project area and proposed features.

Water Board staff provided comments on the draft environmental document which were addressed in the final document, and participated in a technical advisory committee for the project. Water Board staff also manage a grant for the CTC to conduct pre-project water quality monitoring that will inform project design and establish pre-project background conditions. Staff anticipates permitting this project in 2017 or 2018. Water Board issued permits and authorizations will include an NPDES construction storm water permit, Clean Water Act section 401 Water Quality Certification for fill and excavation in wetlands, and Basin Plan Prohibition Exemptions to cover the restoration activities in the sensitive stream environment zone. The CTC anticipates constructing the project between 2019 and 2022.



## 5. **Standing Item - Leviathan Mine, Alpine County - Hannah Schembri**

Water Board staff continue coordinating with USEPA and Atlantic Richfield (AR) for the completion of current and proposed site work at Leviathan Mine.

### *Annual Technical Update Meeting*

Water Board staff participated in the Annual Technical Summary Meeting hosted by USEPA in January 2016. This annual meeting provides an opportunity for USEPA, AR, the Water Board, and researchers to provide information regarding mine site activities in 2015, site assessment and study results, in addition to what is planned for 2016. The general audience is a variety of federal, state (California and Nevada) and local agencies, Washoe Tribe representatives, and some downstream property owners and other interest groups. Water Board staff presented an overview of its 2015 treatment season and general site activities at Leviathan Mine. Additionally, Dr. Vic Claassen from UC Davis presented recommendations from a two-year revegetation study that was funded through a Water Board contract. Other presentations included an AR overview of its 2015 treatment season and Remedial Investigation/Feasibility Study (RI/FS) activities scheduled for 2016, USEPA data observations, updated benthic macroinvertebrate sampling results, and a status report of human health and ecological risk assessment activities.

### *Settlement Agreement Activities*

Water Board staff completed reviewing AR's first RI/FS cost report covering the period of January 2013 through March 2015. Water Board identified and notified AR of a very limited number of costs requiring additional documentation/explanation; otherwise, the remainder of costs were found to be acceptable under the Settlement Agreement. Staff has subsequently received and completed its review of two additional quarterly cost reports. Staff's review of AR's RI/FS costs will continue for the next several years and is a critical element of a complex cost-sharing and accounting system established by the Settlement Agreement.

Water Board staff and AR also recently adjusted deadlines set forth in the Settlement Agreement to better accommodate a full-scale field demonstration of AR's high density sludge treatment system. AR believes that its HDS treatment system will provide a cost effective means to treat certain sources of acidic drainage that are currently be treated separately by the Water Board's pond treatment system and AR's HDS treatment system. Water Board staff will be spending the next two field seasons observing and evaluating AR's HDS treatment system, and if AR successfully demonstrates its HDS system meets Settlement Agreement criteria, then Water Board staff will likely be taking over operations of AR's system in 2018 and will continue to do so until a final remedy is selected and implemented.

### *USEPA El Niño Contingency Plan*

Water Board staff have committed to assist USEPA with its 2015/2016 El Niño Contingency Plan at Leviathan Mine. On-site monitoring and reporting (within 48 hours) of important infrastructure and site conditions occur at a minimum of once every six weeks during the winter and spring seasons by both Water Board staff and AR staff on separate occasions. Additionally, on a regular basis Water Board staff evaluate the real-time staff gage height information that is available on the USGS website at different surface water and acid mine drainage locations at and around the Leviathan Mine site. The Contingency Plan identifies additional Water Board and AR response activities and associated triggering conditions.

## *Year End Report*

Staff submitted the 2015 Year End Report to USEPA, which is available on the Water Board's website.

## *Hyperspectral Presentation*

Water Board staff hosted a special master thesis presentation titled, "*Applications of Multi-Season Hyperspectral Remote Sensing for Acid Mine Water Characterization and Mapping of Secondary Iron Materials Associated with Acid Mine Drainage.*" Gwendolyn Davies from the University of Nevada, Reno provided the presentation. A portion of this research was conducted at Leviathan Mine with assistance from Water Board staff for field access and information gathering.

## *Review and Comment Activities*

Water Board staff has reviewed approximately 50 technical documents and plans since October 2015 related to mine site activities. The documents addressed a wide-variety of subjects including RI/FS work plans, risk assessment work plans, interim combined treatment work plans, USEPA's 2015/2016 El Niño Contingency Plan, AR progress reports, and historical surface water data evaluation.

## **6. PCE Groundwater Investigation Public Meeting, South Lake Tahoe, El Dorado County**

*- Lisa Dernbach*

Water Board staff coordinated a public meeting on February 5, 2016 to describe the PCE groundwater investigation conducted in the western portion of South Lake Tahoe during fall 2015. Lauri Kemper, Assistant Executive Officer, provided an introduction at the meeting describing five PCE impacted water supply wells that led to the investigation. Lisa Dernbach, explained PCE basics and acquisition of \$125,000 Cleanup and Abatement Account funds to conduct the investigation. Through a contract with the Department of General Services, URS Consulting was chosen to prepare a workplan and complete the investigation in early November of last year. A URS geologist described groundwater sampling and the investigation findings. Audience members included water purveyors, consultants, interested public, and the responsible parties for the Lake Tahoe Laundry Works site, another PCE site in South Lake Tahoe.

URS released a report of findings in mid-January. The report described how two water samples were collected from 22 temporary borings using a Geoprobe rig. The Geoprobe sampling detected PCE up to 3 part per billion (ppb) in 5 of the 44 samples (39 samples were non-detect). Water Board staff also sampled five monitoring wells in the area to fill in sampling gaps. The monitoring well samples detected PCE up to 150 ppb. This detection far exceeded the drinking water MCL of 5 ppb. The results indicated a 1,100-ft separation between two groups of PCE detections, indicating two PCE sources are likely contributing to groundwater contamination. However, no specific sources were identified. The report recommended collecting water samples deeper in the aquifer and looking at other potential PCE sources in a follow-up investigation.

Following URS' presentation, a South Tahoe Public Utility District representative described a pump test planned for the inactive Lukins #4 well this spring. This water supply well continues to show PCE detections 25 years after being turned off. The pump test will involve collecting water samples to evaluate the radius of influence of pumping on PCE concentrations. The results will attempt to calculate a distance to a PCE source or sources.

Also at the meeting, a representative with the Lukins Brother Water Company provided a status on the two PCE affected supply wells, #2 and #5. After completing a pilot test of several wellhead treatment options in 2015, Lukins has chosen to proceed forward with granular activated carbon as the selected method. This method is successfully being used for PCE treatment at one of the Tahoe Keys Water Company supply wells. Lukins has applied for a loan from the Division of Drinking Water. Upon receipt of the loan, Lukins plans to construct the wellhead system this summer with the intent for it to be online in 2017.

The meeting concluded with a member of the public requesting staff sample his private domestic well located close to the area of investigation. Staff collected a sample in February, which is being analyzed at the laboratory.

**7. Barstow Soapmine Road Area Groundwater Nitrate and Perchlorate Public Meeting -**  
*Ghasem pour-Ghasemi and Bill Muir*

Water Board staff hosted a public meeting in February 2016 to discuss the current status of the nitrate and perchlorate plumes along Soapmine Road northeast of Barstow. Staff informed the public of the latest monitoring well and private residential well sample results. Maps were available for residents showing how sample results from their wells fit into current plume configurations and apparent groundwater movement. Approximately 55 people attended including local Barstow and Soapmine Road area residents. Representatives from the State and Regional Water Board, Mojave Water Agency, California Rural Water Association, San Bernardino County, City of Barstow, and Golden State Water Company provided information.

Water Board staff gave a slide presentation showing the current shape of the nitrate and perchlorate plumes indicating the two plumes are now commingled. The perchlorate plume is about 1.8 miles long and the nitrate plume is about 1 mile long. The nitrate plume concentrations are decreasing, but could increase in the future if the water table rises and leaches nitrate from soils at former wastewater disposal site. Based on the fourth quarter residential well sampling report, concentrations in two residential wells exceed the maximum contaminant level (MCL) for nitrate of 10 mg/L. The City provides nearly all Soapmine Road area residents east of Interstate 15 in the nitrate affected area with bottled water. The State provides bottled water to two residents affected by perchlorate. Mojave Water Agency and Cal-Rural discussed the entity formation grant that will evaluate alternatives for providing a safe source of drinking water to the area.

The following questions were asked by the residents:

- 1) Why is it taking so long to clean up the groundwater pollution?
- 2) Who is responsible for cleanup?
- 3) Why is the City not taking steps to clean up nitrate and perchlorate at the nitrate affected area?
- 4) How long do they have to live this way?
- 5) What are the options to have a piped water supply line and still use private well?

Some residents do not want piped water or to pay a monthly water bill. Other residents want the Mojave Water Agency, State, County or City to obtain a loan or grant and clean up the groundwater.

Water Board staff responded to the questions and stated that the City has applied to the State Board for SB 445 (Chapter 547, Statutes of 2014) grant money to address the perchlorate portion of the comingled groundwater plume. The Water Board applied for a SB 445 grant to remediate the perchlorate plume source area. Staff also stated that the Water Board extended the City of Barstow's requirement to begin remediating the nitrate plume by two years until November 2017 because of the complexity of addressing the comingled contamination. Staff did note that the City is not responsible for the perchlorate pollution. Staff also informed the audience that I instructed the City and Water Board staff are meeting regularly to establish reasonable actions the City will take to limit the migration of the nitrate plume and address source areas. Water Board staff has a meeting planned with the City on February 25, 2016.

## 8. Hinkley Chromium Background Study Technical Working Group

- Anne Holden and Lisa Dernbach

Another well-attended meeting of the Hinkley TWG occurred in February 2016. Dr. Izbicki and USGS staff are preparing for the second round of background study well sampling, so the meeting goal was to finalize the list of wells to be sampled. Preliminary age-dating results from last year's sampling event were considered, as well as spatial data gaps, chromium trends, well depths and geology. A list of 33 monitoring and domestic wells was developed, and USGS crews will be in the field collecting samples during the second week of March 2016.

To add to the dataset for the background study, a domestic well sampling event was conducted by the USGS in late January. A mobile lab was brought to the Hinkley area, and 73 domestic wells were sampled for a variety of constituents, including chromium, nitrates, trace elements, stable isotopes and field parameters (pH, temperature, dissolved oxygen). Residents were able to see how samples were processed in the mobile lab, and will receive the results from the USGS via letter once data are available. All chromium 6 data collected from domestic wells were less than the California Maximum Contaminant Level of 10 parts per billion; all samples from the Hinkley Valley were in the range of less than 1 to 3 ppb while half the samples in the Harper Dry Lake Valley were greater than 3.1 ppb.

## 9. Highway 58 Expansion Project - Lisa Dernbach and Anne Holden

Water Board staff inspected the Highway 58 expansion project in Hinkley in February 2016. The project began in May 2015 and involves building a 4-lane highway through Hinkley, one-half mile south of the current Highway 58 location.

Project grading has been extensive and is close to being complete. Caltrans staff provided a tour of the area in the western portion of the 6-mile long project. Discussions involved drainage features, erosion control, post-construction Best Management Practices, dust control, and water source locations.

The photo below shows one of the pre-cast concrete box drains that have been installed throughout the length of the project. The box drains will also provide safe routes under the highway for small animals such as the endangered desert tortoise.



Three temporary retention basins are being filled with water supplied from a well on a private property. Testing showed the water contains nitrate above the drinking water standard of 10 ppm. The water is therefore labeled as non-potable and is used just for compaction and dust control. Public complaints received about the project concerns the amount of water being used and potential effects on the aquifer and lowering of water levels in other wells. We have

assured the public that the water being used within allocations and set forth by the Mojave Water Agency and is far enough away to not affect other domestic wells. The project is operating on time with concrete being poured this spring. Final completion is scheduled for winter 2017.

**10. STANDING ITEM- County Sanitation District No. 20 of Los Angeles County (District), Palmdale Water Reclamation Plant - Cephas Hurr**

**Compliance Status**

The District's discharge is in compliance with its waste discharge requirements contained in Order R6V-2011-0012, except for nitrate groundwater pollution caused by historical disposal practices that are separately addressed by a Cleanup and Abatement Order (CAO). With the combination of tertiary treatment, agricultural fields, and winter storage reservoirs, the District has achieved compliance with waste discharge requirements through irrigation of agricultural fields at agronomic rates.

**Cleanup and Abatement Order**

The Water Board issued CAO No. R6V 2003-056 requiring both the County Sanitation Districts of Los Angeles County (District No. 20 – Palmdale) and City of Los Angeles World Airports (LAWA) to cleanup and abate the effects of nitrate discharge that caused groundwater pollution. LAWA owns land leased to the District for the Palmdale wastewater reclamation plant and agricultural land where the District's effluent is applied to farm land at the crop agronomic rate. The CAO requires delineation of the groundwater nitrate pollution plume, containment of the nitrate plume using groundwater extraction wells, and implementation of a remediation plan to restore groundwater quality to background levels. Separately, the CAO requires incremental reduction in the amount of nitrogen reaching groundwater using the District's proposal consisting of: improved treatment, expanding the agricultural use of recycled water, and extracting nitrate polluted groundwater for agricultural use. Quarterly monitoring reports are required.

The District has submitted the plans required under the CAO. However, the requirements of achieving plume containment and implementing a final remedial alternative have not been met. Instead, the District has implemented an interim remedial measure with Board staff's concurrence that includes improved effluent management, construction and operation of six groundwater extraction wells, and application of extracted groundwater to crop land. Improved effluent management was implemented through expansion of the agricultural reuse site and construction of winter effluent storage reservoirs so that effluent is applied to crops at agronomic rates. This practice has been in effect beginning in calendar year 2010. Recent monitoring data indicate the plume's "hot spot" has shifted to the northwest.

## Investigative Order

Subsequent to staff review of the various plans submitted under CAO and other enforcement orders, the District was issued Investigative Order R6V-2012-0056 requiring a: 1) plume delineation plan, 2) plume containment plan, 3) plan to reduce the effect of groundwater overdraft through extraction, and 4) a cost and feasibility evaluation of technologies to reduce nitrate to less than 3 mg/L.

The District has submitted all the work plans and reports required under the Investigative Order. On March 20, 2015, staff accepted the reports as satisfying Order R6V-2012-0056. Additional groundwater monitoring wells were installed in the northern portion of the nitrate plume. Increasing nitrate concentrations have shifted to the northwest area of originally identified nitrate plume towards a drinking water well located on Air Force Plant 42, Site 4. While the District changed effluent management in the crop farmland area, there has been an approximate 30 feet of water level decline in the area since 2002 with deeper groundwater wells showing elevated nitrate concentration levels; the result of regional groundwater extraction activities. The District submitted a technical report in compliance with the 13267 order that reviews available technologies and literature to assess the cost and feasibility of removing nitrate from groundwater to levels of 3 mg/L or less.

The District's recommended alternative (Alternative 2b) is to continue implementing its interim remedial measures plan, but also do a "water swap"; replacing its recycled water and extracted groundwater for pumped groundwater now used by adjacent growers. This will decrease overall groundwater withdrawal and slightly reduce energy cost. The District now supplies extracted nitrate plume groundwater to the AG Sod Farms, Inc. with these sources and the AG Sod Farms, Inc. has reduced its groundwater pumping. Staff supported the "water swap" but did not concur with Alternative 2b because plume containment has not been effective.

Staff concluded that additional actions are needed to contain the plume from further migration to the northwest and to remediate the present high nitrate concentration areas. Our letter also requested an assessment of the risk potential to residential receptors down gradient of the plume north of Avenue M and stated that groundwater extraction should be shifted to migrating hot spots northwest of the current extraction area.

In December 2015, staff met with both the District and LAWA staff. The District discussed the progress of investigating private offsite wells north of the project area that potentially may be sampled to establish nitrate concentrations in drinking water. The District also raised the issue of replacing certain wells and removing certain wells from their sampling network. The District raised its concern about elevated nitrate in well MW59, which is near AG Sod Farms, Inc. LAWA promised to provide an agricultural cropping plan for its farming operations by January 2016 in order to comply with CAO No. R6V-2003-056.

In a separate, but related issue, in February, staff met with District staff and Palmdale Water District staff regarding the water district's proposed Palmdale Regional Groundwater Recharge and Recovery Project. Tertiary disinfected recycled water from the Palmdale wastewater plant would be blended with imported State Water Project water and placed in a groundwater "bank"

for subsequent withdrawal and customer delivery. Staff provided comments on the Draft Environmental Impact Report for this project in January 2016.

**Compliance Task Status Table**

A table showing the status of compliance with actions related to the clean up of groundwater is included at the end of this report. Status of cease and desist order compliance actions are no longer included because the cease and desist order was rescinded in June 2011. Status of Investigative Order R6V-2012-0056 actions are no longer included because that order has been satisfied.

**SCHEDULE OF TASKS**

PALMDALE WATER RECLAMATION PLANT (PWRP)

COUNTY SANITATION DISTRICT NO. 20 OF LOS ANGELES COUNTY (DISTRICT)

<b>PERFORMANCE TASK</b>	<b>DUE DATE</b>	<b>STATUS</b>
<b>Required by Cleanup and Abatement Order R6V 2003-056</b>		
<b>Plume Delineation</b>		
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
<b>Plume Containment</b>		
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 – Additional extraction wells are needed to limit plume movement toward an Air Force Plant 42, Site 4 domestic well.



<b>PERFORMANCE TASK</b>	<b>DUE DATE</b>	<b>STATUS</b>
<b>Plume Remediation</b>		
1.3.1 - Submit a plan describing the proposed plume remediation describing how groundwater will be restored to background or propose alternative cleanup levels pursuant to SWRCB Resolution 92-49	Sept 15, 2004	Not met – The overall cleanup strategy should be evaluated in context of recent groundwater adjudication.
1.3.2 – Implement the proposed plan for groundwater extraction and agricultural irrigation (or an equally acceptable alternative)	Sept 15, 2005	Not met — In progress
<b>Abatement</b>		
2.1 – Submit a plan describing proposed abatement actions	March 31, 2004	Met – Requested LAWA to submit a Farm Management Plan to ensure water and nutrients are applied at the agronomic rate for their lessees other than the District. The plan should include vadose zone monitoring.
<b>Reporting</b> 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
<p><b>Required by: Monitoring and Reporting Program No. R6V-2011-0012</b></p> <p><i>The itemized tasks are associated with groundwater cleanup activities</i></p>		
II.B.3 – Submit quarterly reports for - Groundwater Monitoring Report	15 <sup>th</sup> working day of the second	Ongoing

PERFORMANCE TASK	DUE DATE	STATUS
<ul style="list-style-type: none"> <li>- Groundwater Extraction Operations Report</li> <li>- Agricultural Site Monitoring Report</li> <li>- Agricultural Vadose Zone Monitoring Report</li> <li>- Agricultural Site Monitoring, Operations, and Chemical Use Monitoring Report</li> <li>- Chemical Use Monitoring Report</li> <li>- Storage Reservoir Site Vadose Zone Monitoring Report</li> <li>- Biosolids Storage and Disposal Report</li> </ul>	month following each quarterly monitoring period	
<p>II.B.4. – Submit annual reports for</p> <ul style="list-style-type: none"> <li>- Treatment plant</li> <li>- Groundwater monitoring</li> </ul>	March 1 <sup>st</sup> of each year	Ongoing

### 11. Tom Browne Completes Stormwater Certification - *Jehiel Cass*

Dr. Tom Browne, Victorville office staff, successfully completed professional certification as a Municipal Separate Storm Sewer Specialist under EnviroCert International Inc.

The CMS4S™ certification recognizes individuals who are technically and ethically qualified to develop, implement, manage and coordinate a municipal Stormwater Management Program (SWMP) to achieve and maintain compliance in conformance with applicable NPDES requirements. Tom’s certification demonstrates proficiency in the management of a Municipal Separate Storm Sewer System for permit compliance. This certification is based on a combination of education and experience, and passing an exam.

EnviroCert offers internationally recognized professional certifications, earned by demonstrating certain qualifications and is maintained by continued professional development hours.

EnviroCert standards ensure the stormwater community that certificants have demonstrated appropriate credentials for stormwater professionals.



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**Preferred Alternative**



**Proposed Features**

**River and Habitat**

- Lagoon
- Restored Dune
- Restored Meadow
- TYC Restricted Use Area
- Removed Reserve Fill
- Proposed New Channel
- Partial Fill of Existing Channel
- Enhanced Existing Channel

**Engineered**

- Lateral Grade Control
- Vertical Grade Control
- Bank Protection
- Bulkhead/Levee
- Channel Grade Control and Bank Protection
- Storm Water Treatment Area
- Overbank Conveyance Bridge Modification

**Recreation**

- Fishing Access
- ADA Accessible
- Kiosk
- Pedestrian Trail
- Viewpoint
- Observation Area



**California Tahoe Conservancy**  
 December 2015

Map for reference purposes only.  
 Sources: TRPA; CTC



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# **ENCLOSURE 2**

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

**2016 STANDING ITEMS  
March**

The Water 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 the dates the items are due.

<b>ENTIRE BASIN</b>		
<b>ISSUE</b>	<b>FREQUENCY</b>	<b>DUE DATE</b>
Lake Tahoe Nearshore	Semi-Annual	July 2016 January 2017
Status of Basin Plan Amendments	Annually	July 2016
Status of Grants	Annually	<del>March</del> April 2016
Caltrans Statewide General Permit/Tahoe Basin	Annually	July 2016
Tahoe Municipal Permit	Annually	July 2016
County Sanitation Districts of Los Angeles – Dist. No. 14	Annually	February 2017
County Sanitation Districts of Los Angeles – Dist. No. 20	Annually	<del>February</del> March 2016
Status of Dairies	Semi-Annual	September 2016 February 2017
City of Barstow Nitrate/Orphan Perchlorate	Annually	September 2016
Pacific Gas & Electric Company	Southern Board Meetings	September 2016
Leviathan Mine	Semi-Annual	<del>January</del> March 2016 July 2016
Salt & Nutrient Management Plans	Annually	May 2016
Onsite Septic Tanks	Annually	June 2016
Grazing Update	Annually	June 2016
Bacteria Water Quality Objectives Project	Semi-Annual	May 2016 November 2016

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# **ENCLOSURE 3**

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COUNTY: KERN								
Discharger/Facility	Location	Basin	Regulated Facility?	Discharge Date	Discharge Volume	Description of Failure	Additional Details	Status
Loves Country Stores/Loves Truck Stop	2000 East Tehachapi Blvd, Tehachapi	South	No	2/4/2016	100 gallons	Tractor trailer driver overfilled fuel tanks causing diesel to spill to concrete.	Spilled diesel fuel migrated from fueling area into a nearby ditch. No surface water affected.	Spilled diesel cleaned up. Soil cleanup under Kern County oversight.
COUNTY: LOS ANGELES								
Discharger/Facility	Location	Basin	Regulated Facility?	Discharge Date	Discharge Volume	Description of Failure	Additional Details	Status
Lancaster City/City Of Lancaster CS	Arbor Grove Mall, 45074 10th Street West, Lancaster	South	Yes	2/6/2016	750 gallons	Mainline blockage caused 750-gallon raw sewage discharge to paved surface.	Grease blockage caused sewage to spill from private lateral cleanout and floor drains to paved surface. No surface water body affected.	Cleared blockage, returned 390 gallons of discharge to the sanitary sewer system, and cleaned up affected area.
Ca Dept of Corrections/California State Prison, Los Angeles County CS	44750 60th Street West, Lancaster	South	Yes	2/4/2016	100 gallons	Mainline blockage caused 100-gallon raw sewage discharge to paved surface.	Debris blockage caused sewage to spill from three manholes to paved surface. No surface water body affected.	Cleared blockage and cleaned up affected area.
COUNTY: SAN BERNARDINO								
Discharger/Facility	Location	Basin	Regulated Facility?	Discharge Date	Discharge Volume	Description of Failure	Additional Details	Status
San Bernardino Cnty Special Districts/Crestline Sanitation District Three CS	Manhole at AD 6 Easement 5C, Manhole #522, 23727 Bowl Rd. Crestline Ca 92325	South	Yes	1/24/2016	750 gallons	Mainline blockage caused 750-gallon raw sewage discharge to paved surface.	Root Intrusion caused sewage to spill from manhole to paved surface. No surface water body affected.	Cleared blockage; returned 250 gallons of discharge to sanitary sewer system, and cleaned up affected area.

COUNTY: SAN BERNARDINO								
Discharger/Facility	Location	Basin	Regulated Facility?	Discharge Date	Discharge Volume	Description of Failure	Additional Details	Status
Lake Arrowhead Community Service/Lake Arrowhead Csd CS	441 Clubhouse Dr., Twin Peaks (near Lake Arrowhead)	South	Yes	1/26/2016	2,250 gallons	Mainline blockage caused 2,250-gallon raw sewage discharge to paved surface, storm drain, and then to an unnamed tributary of Grass Valley Creek.	Debris-rags blockage caused sewage to spill from a manhole into a storm drain that discharges to an unnamed tributary of Grass Valley Creek. Surface Water affected.	Cleared blockage, returned 75 gallons of discharge to sanitary sewer system, and cleaned up affected area.
VVWRA WWTP	20111 Shay Road, Victorville	South	Yes	1/28/2016	40,000 gallons	Mechanical failure caused 40,000-gallons of secondary treated effluent to discharge to a storm drain and then to Mojave River	Pump failure caused secondary treated sewage to spill to storm drain and then to Mojave River. Surface water body affected.	Spill contained and area cleaned up.

# **ENCLOSURE 4**

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**Summary of  
No Further Action Required Letters Issued  
January 16 - February 15, 2016  
March 2016 EO Report  
State of California  
Lahontan Regional Water Quality Control Board**

The Executive Officer finds the release of petroleum products at the following sites poses a low threat to human health, safety, and the environment. Therefore, these cases were closed in accordance with the Water Quality Control Policy for Low-Threat Underground Storage Tank Case Closure (Resolution 2012-016). The Policy recognizes contaminant mass often remains after the investment of reasonable remedial effort and this mass may be difficult to remove regardless of the level of additional effort and resources invested. The establishment of the Policy is an effort to maximize the benefits to the people of the State of California through the judicious application of available resources.

Date Closure Issued	Site Name	Site Address	Case Number	Additional Information
January 27, 2016	Oil Water Separator 789-S1 AGE Wash Rack	Former George Air Force Base Phantom W. Street Victorville, San Bernardino County	T10000001733	<a href="http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T10000001733">http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T10000001733</a>
February 5, 2016	Hinkley Market and Gas	37466 Hinkley Road Hinkely, San Bernardino County	T10000007347	<a href="http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T10000007347">http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T10000007347</a>

**Additional links:**

General Policy information: [http://www.swrcb.ca.gov/ust/lt\\_cls\\_plcy.shtml#policy081712](http://www.swrcb.ca.gov/ust/lt_cls_plcy.shtml#policy081712)

Copy of Policy: [http://www.waterboards.ca.gov/board\\_decisions/adopted\\_orders/resolutions/2012/rs2012\\_0016atta.pdf](http://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2012/rs2012_0016atta.pdf)

Implementation Plan [http://www.waterboards.ca.gov/board\\_decisions/adopted\\_orders/resolutions/2012/110612\\_6\\_final\\_ltcp%20imp%20plan.pdf](http://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2012/110612_6_final_ltcp%20imp%20plan.pdf)