Lahontan Regional Water Quality Control Board

EXECUTIVE OFFICER'S REPORT

September 2014

NORTH

1. **PCE Contamination Shuts Down Two Lukins Brothers Water Company Wells, El Dorado County** – *Lisa Dernbach*

   In mid-July, the Water Board was contacted by the Lukins Brother Water Company in South Lake Tahoe and informed that PCE impacts have resulted in shut down of two municipal wells. PCE, or tetrachloroethene, was detected up to 46 parts per billion (ppb) in water samples collected from Well Nos. 2 and 5. This level is significantly greater than the drinking water standard of 5 ppb. Follow-up samples showed lower PCE concentrations up to 22 ppb. Since sampling is only conducted every three years by small water purveyors, the amount of time of PCE contamination in water supply to customers is not known.

   The shutdown of the two wells brings to a total of four Lukins municipal wells shutdown for PCE contamination; Well Nos. 3 and 4 ceased operating in 1989 and 1990, respectively. With 80 percent of Lukins wells shut down, the water purveyor has one well left in operation, Well No. 1, to supply domestic water to nearly 1,000 residential properties and businesses.

   Emergency water supply is being provided through a connection to South Tahoe Public Utility District (STPUD) water lines. Lukins is investigating possible funding from the State Water Board's Division of Drinking Water for either wellhead treatment or construction of a new well. Both options, however, will involve a significant amount of time before Lukins can provide additional water supply to customers.

   In meetings with Lukins and STPUD, Water Board staff offered assistance in identifying possible PCE sources. Water Board staff proposed sampling domestic and monitoring wells in the area and issuing investigative orders to potential source property owners to conduct groundwater investigations. Water Board staff is also conferring with El Dorado County to identify businesses that have been issued hazardous material use permits. PCE is a solvent frequently used in past dry cleaning and metal degreasing operations. Thus, Water Board will identify past and current repair shops in the area since there are no current or former dry cleaners in the area. Because of PCE's carcinogenic effects, the chemical is rarely used in current business operations.

This investigative and enforcement effort is expected to be time intensive and extensive involving staff resources from the Site Cleanup Program, a program with limited funding under the State Water Board.

2. **18th Annual Lake Tahoe Summit** – *Robert Larsen*

Since the first Presidential Forum in 1997, state, federal, and local government representatives have gathered annually to discuss the importance of protection and restoring the Lake. The event, known as the "Lake Tahoe Summit," is held in August. This year, California Senator Diane Feinstein hosted the Summit at the Valhalla Estate in South Lake Tahoe. This year's theme was "*Drought, Wildfire, and Invasive Species: Confronting the Effects of Climate Change on Lake Tahoe".*

Speakers included U.S. Senators Feinstein (CA), Reid (NV), and Heller (NV), Governors Sandoval (NV) and Brown (CA), U.S. Congressman Amodei (NV), Joanne Marchetta (TRPA Executive Director), Geoff Schladow (U.C. Davis), U.S. Representatives McClintock and Garamendi, and CA Lieutenant Governor Gavin Newsome.

While the gathered officials noted the success of past efforts to reduce erosion and improve water quality, poor forest health, worsening drought, and the ongoing threat of new invasive species were highlighted as the primary challenges facing resource managers today. To address these issues, Senators Reid and Feinstein introduced a bill in the Senate to re-authorize the Lake Tahoe Restoration Act to provide critically important federal support for vegetation management and watershed restoration work. The bill, however, faces an uphill battle in Washington, as evidence by the partisan tension on display at the Summit.

In the keynote address, Governor Brown highlighted the bi-partisan success of the California Water Board as an example of overcoming political differences to reach important legislative agreements. If passed, the bond will likely provide state funding to support sensitive land acquisition and habitat restoration efforts led by the California Tahoe Conservancy.

Despite differences of opinion regarding climate change and the need for federal funding, the gathered officials expressed their shared commitment to reduce the threat of catastrophic wildfire by signing a proclamation honoring the release of the updated Multi-Jurisdiction Fuel Reduction and Wildlife Prevention Strategy.

SOUTH

3. **Arimol Group – Serenity Lodge, Lake Arrowhead** – *Scott Ferguson*

   The Arimol Group has made significant progress towards restoring an ephemeral creek and wetland habitat that were destroyed in October 2011 by Arimol's unauthorized grading activities. Arimol Group has completed implementing its restoration plan, excluding monitoring, for the 1.8-acre parcel located near Lake Arrowhead.

   Water Board staff will be inspecting the site in September 2014. Staff anticipates being able to successfully address a couple of remaining habitat delineation issues regarding spring habitat during the inspection. Once the delineation issues are resolved, Arimol and Water Board staff will turn their attention towards evaluating the appropriate amount of compensatory mitigation for the temporal, and potentially permanent, loss of spring, creek, and wetland habitats.

   Surface water habitat restoration is required by Cleanup and Abatement Order No. R6V-2013-0078, which replaced an earlier Cleanup and Abatement Order. Water Board staff anticipates drafting a separate Cleanup and Abatement Order to address mitigation requirements, once they are developed. This task should be completed within the next four to six months.

4. **City of Barstow Compliance with Enforcement Orders** – *Ghasem Pour-ghasemi*

   The City of Barstow (City) is in the process of upgrading the wastewater treatment facility and percolation ponds. The phase I improvements are estimated to cost 8 million dollars, of which 2.8 million dollars is from federal grants. Modification of one aeration basin and one secondary clarifier is completed and work has begun on another aeration basin and secondary clarifier. Phase I construction will be completed in May 2015. Rehabilitation of percolation ponds 1, 2, and 3 is completed and rehabilitation of ponds 4 and 5 is now in progress.

   In July, the Water Board issued Cleanup and Abatement Order (CAO) No. R6V-2013-0045 requiring the City to design and construct a network operation to capture and treat groundwater nitrate downgradient of the northern irrigation field in the Soapmine Road neighborhood. The deadline to start extracting and treating nitrate contaminated groundwater is November 2014.

   However, quarterly collected groundwater monitoring data indicate the presence of perchlorate in some of the monitoring wells. Perchlorate is migrating from a site upgradient to the Soapmine Road area. Water Board staff and the City agreed that the perchlorate and nitrate groundwater pollution should be addressed together. To accomplish this, the City will present a revised treatment plan for Water Board staff review. The City will likely request additional time to construct and start the treatment system. This will require an amendment to CAO R6V-2013-0045A1 allowing a later start date.

   The City continues to sample 36 residential drinking water wells in the Soapmine Road area. Only one residential well exceeded maximum contaminant level (MCL) for nitrate as nitrogen N of 10 mg/L and a total of 10 private wells showed nitrate-as N concentrations exceeding 5 mg/L. The nitrate concentration trend is going down. However, the City supplies 32 residences with uninterrupted replacement water service (bottled water) where nitrate concentrations

exceeded 5 mg/L nitrate-as N at any time in the past.

5. **County Sanitation Districts of Los Angeles County, Request for Supplemental Environmental Project Disbursement** – *Francis M. Coony*

   On November 29, 2007, the Water Board adopted Administrative Civil Liability Order No. R6V-2007-0034 (2007 Order) against County Sanitation Districts No. 14 (Lancaster) and 20 (Palmdale) of Los Angeles County (Districts). The Order imposed a $4.75 million liability. A total of $4.55 million of the liability was suspended providing that the money would be deposited into a supplemental environmental project (SEP) escrow account. Disbursements from the account would be used to reimburse project segments of the Antelope Valley Recycled Water Project. A modified SEP was approved under Order R6V-2010-0026. Eligible for reimbursement is any segment of the Antelope Valley Recycled Water Project plus other segments that would facilitate the distribution and use of recycled water. Pre-construction disbursements were allowed to provide a grant match under a project segment managed by the U.S. Army Corps of Engineers (USACOE).

   On June 25, 2014, the Districts submitted two SEP account disbursement requests. One request was to the City of Lancaster to fund their share of a USACOE project segment. That project segment extended a recycled water delivery pipeline in Division St. from Lancaster Blvd. to Avenue K12. The pipeline location is indicated as a solid teal line on the enclosed Figure 1. The sprinkler system at the Lancaster City Park was modified and now receives recycled water from this pipeline.

   The other request is a disbursement to the City of Palmdale for construction of a temporary pump station at the Palmdale Water Reclamation Plant, and construction of a delivery pipeline in 30th Street East from Avenue P4 to Avenue R. The pipeline is identified as a solid yellow line on the Figure 1 map. The pipeline is in use and serves about 60 acre-ft/year to McAdam Park.

   On July 22, 2014, the Executive Officer approved disbursement from the SEP account as requested. The City of Lancaster received $1,520,000 and the City of Palmdale received $970,829.

   The Executive Officer approved two previous SEP account disbursements. In 2010, $1 million to the Corp and in 2012, $600,000 also to USACOE.

   A total of $455,000 remains in the SEP account. Funds must be disbursed by July 1, 2015 unless the Districts ask for an extension and the Water Board approves the extension. Project segments eligible for SEP account disbursements have yet to be identified.

6. **Update on the Salt and Nutrient Management Plan for the Antelope Valley Groundwater Basin** – *Jan M. Zimmerman*

   The draft Salt and Nutrient Management Plan (SNMP) for the Antelope Valley groundwater basin was submitted to Water Board staff on May 14, 2014. The SNMP was prepared primarily by staff from the Los Angeles County Waterworks Districts and the Sanitation Districts of Los Angeles County with cooperation from the stakeholders of the Antelope Valley Integrated Regional Water Management (IRWM) Group. We commend the Group for taking the lead role in the development of the SNMP and their ongoing groundwater management efforts. The SNMP complements the IRWM plan and, in conjunction, will benefit and support sustainability of the Antelope Valley.

   Water Board staff reviewed the SNMP in light of our previous comments on an earlier draft version of the plan, the requirements of the State Water Board Resolution

No. 2009-0011 (Recycled Water Policy), as amended, and the requirements of our Basin Plan. This SNMP is significantly improved over earlier drafts and contains the Recycled Water Policy elements of a SNMP. The SNMP documents that groundwater in the greater Antelope Valley Basin is generally of good quality, though there are several sub-basins where baseline water quality exceeds the water quality objective for one or more constituents (principally due to naturally occurring conditions rather than anthropogenic sources). Modelling predicts that assimilative capacity in the greater Antelope Valley groundwater basin will be maintained for all constituents throughout the 25-year planning period. Because no changes to water quality objectives are proposed in the SNMP, a Basin Plan amendment is not required.

A final SNMP, incorporating our latest comments to clarify plan content, will be submitted to Water Board staff by early September 2014. The Group is scheduled to present an overview of the SNMP at the November 2014 Board Meeting. This will be an informational item. The Water Board will not be asked to take a formal action, however it may provide direction to staff.

7. **Onsite (Septic) Wastewater Treatment System Policy Implementation for County of San Bernardino** – *Francis M. Coony*

The State Water Board adopted the State Policy for Siting, Design, Operation, and Maintenance of Onsite (septic) Systems (Policy). To retain their delegated regulatory authority, local agencies must establish and implement a local agency management program (LAMP). A LAMP must include corrective action requirements, minimum monitoring requirements, exemption criteria, and requirements for determining when an existing onsite system needs major repairs. Local agencies must submit their draft LAMP to the regional board by May 13, 2016, and the regional board must approve the LAMP by May 13, 2017.

San Bernardino County intends to develop a LAMP. The county encompasses areas within three regional board boundaries: Lahontan, Colorado River Basin, and Santa Ana River. In accordance with Water Code section 13228, a single, designated regional board may approve the county's LAMP. The Policy names the Lahontan Regional Board as the designated regional board for San Bernardino County.

Therefore, Lahontan Regional Board staff organized a progress meeting and invited staff from the county and Colorado River Basin and Santa Ana River regional boards. The meeting was held on July 22, 2014 in San Bernardino. The key outcomes from the meeting are as follows:

- The county and Regional Board staff acknowledge that the existing ½ acre per equivalent dwelling unit may not be based on the best available scientific information and may not be protective of water quality in all areas. A future discussion will be whether the existing density criteria is appropriate or whether a more stringent density as identified in the new State Board Policy is necessary to protect water quality.

- The county understands that they must conduct performance–based monitoring in a LAMP. This is new county work scope that will require new budget and resources. To conserve monitoring expenses, Regional Board staff encouraged the county to use existing and ongoing groundwater sampling data from other agencies such as the Division of Drinking Water, United States Geological Survey, Mojave Water Agency and the Santa Ana Watershed Project Authority.

- Staff persons from of the three Regional Boards recommend that the LAMP include the exemption process for onsite systems in prohibition areas. Each Regional Board's Basin Plan contains

some form of prohibition areas and associated exemption criteria.

- The county will work directly with the Colorado River Basin Regional Board staff to cover requirements for an area of special interest, and the county will work directly with the Santa Ana River Regional Board staff to develop an advanced protection program for Santa Ana River Region impaired surface water bodies.

8. **Marine Corps Logistics Base Barstow, Operable Unit 7 Record of Decision** – *Bill Muir*

The Department of the Navy submitted the Operable Unit (OU) 7 Record of Decision (ROD) for Marine Corps Logistics Base (MCLB), Barstow describing its proposed remedial actions. The OU7 ROD addresses 18 sites; five sites that require remedial actions and 13 sites that require no further active remedial actions. Of the five sites proposed for remedial action, 2 sites have groundwater pollution only, 2 sites have only soil contamination, and 1 site has both soil and groundwater pollution. Of the 18 sites, 17 sites will implement land use restrictions, and one site (Y-7-TA-12) is a no further action site with no land use controls required. Water Board staff concurs with the selected remedies for all 18 sites.

The selected for the three sites with groundwater pollution is monitored natural attenuation (MNA). All these plumes are located within the Nebo Main Base (see enclosed Figure 7). Contaminants at these sites are primarily solvents including trichloroethylene (TCE) and tetrachloroethylene (PCE). The concentrations of contaminants in the groundwater range from detection levels to 36 micrograms per liter (µg/L). The Navy has shown that the plumes are stable and contaminant concentrations within the plumes are decreasing with time. The Navy is proposing to monitor the sites annually until concentrations within the plume meet the maximum contaminant levels (MCLs), for each contaminant of concern (e.g., TCE = 5 µg/L, PCE = 5 µg/L). The projected time to reach the MCL at site CAOC 10.38/10.39 is 15 years, the projected time to reach the MCL at site NPZ-14 is 17 years, and the time to reach the MCL at site CAOC 7 Stratum 1 is 4 years. While natural attenuation parameters will be monitored until the MCL is achieved at each site, natural attenuation processes will continue until background concentrations are reached (projected at 35 years for CAOC 10.38/10.39, 40 years for NPZ-14, and 9 years for CAOC 7 Stratum 1).

Site CAOC 7 Stratum 1 is the site with both soil and groundwater contamination. The remedial approach for soil at this site also includes a soil vapor extraction component that will remove volatile organic compounds from the vadose zone beneath the landfilled waste to prevent vadose zone contaminants from leaching contaminants to the groundwater.

The selected remedies for the two soil only sites include removal using vacuuming for lead and soil excavation and offsite disposal for other contaminants including lead, polycyclic aromatic hydrocarbons (PAHs), and polychlorinated biphenyls (PCBs). Soil cleanup will be to industrial standards and land use restrictions will be used to restrict residential and other uses. All cleanup levels are protective of groundwater at each of the soil only sites.

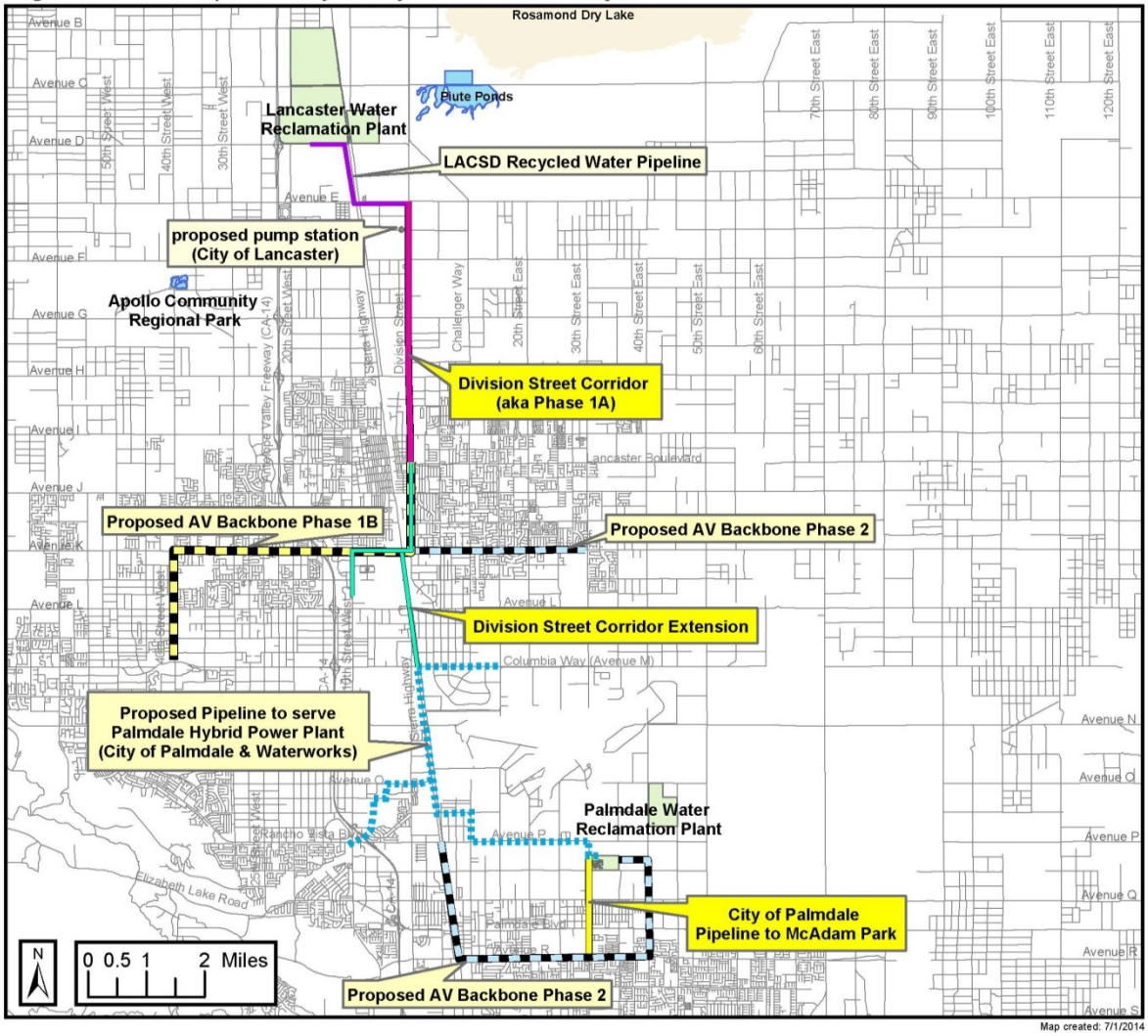
For the 12 soil sites requiring no further remedial action, contaminants remain in the soil at each of these sites above unrestricted reuse levels, therefore land use controls will be placed on each site. The Navy will re-evaluate risks should a different site land use be proposed in the future.

The proposed remedial actions in the ROD comply with the Water Board Applicable or Relevant and Appropriate Requirements, are consistent with the Water Quality Control

Plan for the Lahontan Region and are protective of water quality. Therefore Water Board staff recommends concurrence with the final ROD as described above and that the Executive Officer sign the final ROD indicating the Water Board's concurrence. If there are changes to the proposed remedy from that described above, an updated Executive Officer's Report item will be provided to the Water Board.

EO Report Item 4

Figure 1. Antelope Valley Recycled Water Project



Legend

(dashed lines represent proposed pipleines and solid lines represent constructed pipelines)

Original SEP proposed pipelines

- Proposed AV Backbone Phase 1B
- Proposed AV Backbone Phase 2

Completed AV Backbone pipelines

- Division Street Corridor (Phase 1A); constructed by City of Lancaster & Waterworks, completed in 2008
- Constructed by the City of Palmdale, completed in 2012
- Division Street Corridor Extension; constructed by US Army Corps of Engineers, completed in 2012

SANITATION DISTRICTS OF LOS ANGELES COUNTY

EO Report Item 7
Figure 7 – Marine Corps Logistis Base Barstow
Operable Unit 7 Groundwater Plumes and Land Use Restrictions Associated with these Plumes