



Lahontan Regional Water Quality Control Board



EXECUTIVE OFFICER'S REPORT

May 2014

NORTH

1. **Eventful Season Upcoming at Leviathan Mine - *Chuck Cutis***

Staff of the Water Board are preparing for a challenging treatment season at the Leviathan Mine Superfund Site, which the Water Board manages for the State. The Leviathan Mine is a former sulfur mine in Alpine County that discharges contaminants into Leviathan and Aspen creeks that run through the site. The contaminants include highly acidic water, sulfates, and a mix of metals that is toxic to aquatic life. The affected creeks join and flow through Washoe Tribe allotments and into Nevada a few miles downstream from the mine.

This year, a new contractor will be assisting the Water Board in treating acidic mine drainage (AMD) that discharges to ponds the Water Board constructed at the site in 1984. Bringing a new treatment contractor up to speed on the treatment and related tasks at the challenging mine site is a staff-intensive effort. The remote site is located at 7,000 feet elevation in the Sierra Nevada mountains, with only seasonal, dirt road access, and has no available drinking water, no utility power and telecommunications, and no cell telephone coverage. All services must be brought to the site late each spring for the

summer treatment season and must be removed prior to the onset of winter conditions that strand the site in deep snow.

In addition, Atlantic Richfield Company (ARCO), which also treats AMD at the site, will be conducting a combined AMD treatability investigation that plans to include AMD from the discharges the Water Board manages. The goal of the investigation is to determine the feasibility and cost of treating all (or most) of the AMD discharge sources in one treatment facility. Combined treatment is expected to reduce overall costs of treating AMD at the site. Water Board staff will assist ARCO in collecting and transporting AMD from the Water Board's facilities to ARCO's treatment plant at the site as part of the investigation.

The Water Board will be conducting treatment and site maintenance activities at the Leviathan Mine in conformance with an order from the US Environmental Protection Agency (USEPA). USEPA has also ordered ARCO's cleanup activities and its remedial investigation and feasibility study activities at this federal Superfund site, which is on the nation's list of most polluted sites. A proposed litigation settlement between the Water Board and ARCO would result in the

Water Board taking over most operations at the site in a few years, with significant funding supplied by ARCO. The settlement is expected to be finalized by summer.

grant funds will assist the District in accomplishing these additional needed tasks.

2. Leavitt Lake Community Services District Receives Grant from the United States Department of Agriculture – Rob Tucker

In January 2014, the Leavitt Lake Community Services District (District) adopted increased sewer rates to support their sewage collection and treatment system (Facility). The adoption of the fee increases qualified the District for a grant from the United States Department of Agriculture (USDA). The District was informed in early March that they would receive a USDA grant for \$104k. These funds will be used by the District to make additional improvements to their Facility that should result in better effluent quality.

The grant is important to this small rural District because the Facility has had difficulty in meeting wastewater effluent limits during the past few years. In 2013, the District used the last of their reserve funds to clean the sludge out of two wastewater ponds, purchase aerators, install one aerator in a primary pond, and provide grid-based electric power to their ponds to power aerators. The District met their effluent limit in January 2014 for the first time in over a year, which allowed them to legally discharge stored effluent to their disposal areas.

The District was out of funds to perform additional Facility improvements, with the following work still to be accomplished: remove sludge from five other ponds, install additional aerators, dispose of the accumulated sludge properly (currently stockpiled onsite), reconfigure the piping for the facility so water can flow to each pond without requiring pumping, and undertake actions to improve site access (i.e., road and pond improvements). The

SOUTH

3. **Antelope Management Group, Meetings for the Integrated Regional Water Management Plan Update –** *Patrice J. Copeland*

The Antelope Valley Regional Water Management Group (RWMG) held a stakeholder meeting on March 26, 2014. The purpose of this meeting was to inform stakeholders regarding submittal progress on the Integrated Regional Water Management Plan (IRWMP) Update to the Department of Water Resources (DWR) and to discuss other matters pertaining to the RWMG. The Antelope Valley IRWMP Update was submitted to the DWR at the end of January 2014. Plan adoption by the RWMG is required for the Proposition (Prop) 84 grant process.

An update on the Prop 84 grant funding opportunities was also provided to the group. DWR has split the funding into two parts: Part 1 is an expedited emergency drought relief round and Part 2 is the regular implementation round. Approximately \$200 million is available for drought relief projects, of which about \$6 million is expected to be available to the Lahontan Funding Area, which includes Antelope Valley. The remaining funds (\$250 million) will be available for projects in 2015/2016 (Part 2). The RWMG members were asked to begin considering qualifying projects for submittal, expected due to DWR by August 1, 2014. Strategic coordination with other Lahontan Funding Area IRWMP groups, including Tahoe Sierra, Inyo/Mono, Mojave, Fremont, and Lahontan Basin for Prop 84 funds was also discussed.

As reported in October 2013, the Boron Community Services District (Boron CSD) did not receive Prop 84 funding from DWR for the Boron Arsenic pilot study. However, Boron CSD resubmitted their request to DWR as a disadvantaged community; this resulted in DWR's funding the project. This pilot study would have considered the feasibility of alternatives to reduce the concentration of arsenic in the potable water system. However, the Boron CSD had already applied for and approved for funding under the State Water Resources Control Board's, State Revolving Fund (SRF) loan program. Therefore, Boron CSD made the difficult decision to turn down the Prop 84 funding and proceed with the project under the SRF program.

Representatives from Antelope Valley College and Antelope Valley Unified School District spoke briefly to the RWMG about soliciting partners to help develop a water science program through a career education pathways trust grant that will begin educating high school aged children in water careers. In addition, they are looking at developing an advisory council within the greater Antelope Valley area for water treatment, wastewater treatment, and water conservation.

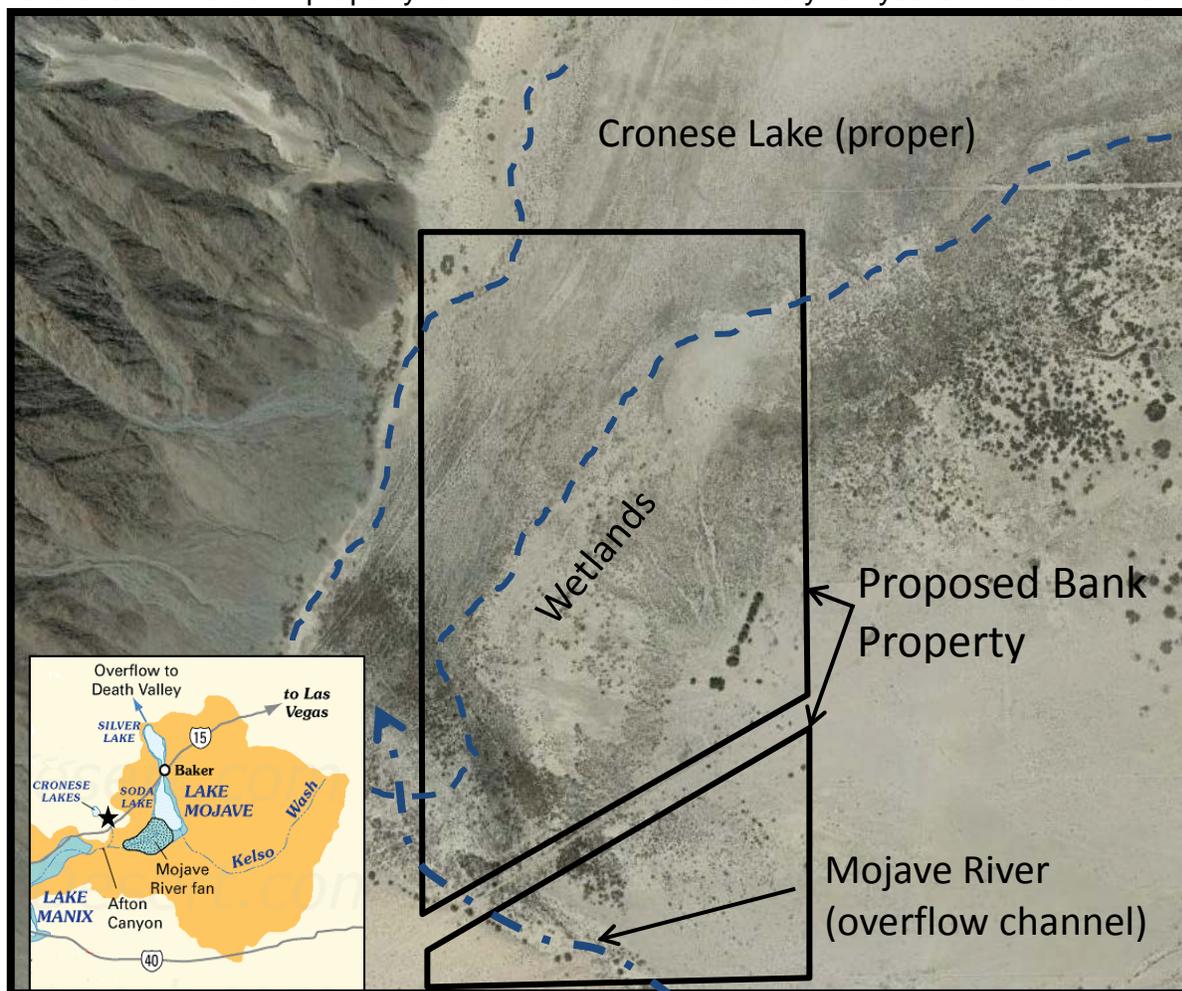
A project update was given regarding the Littlerock Creek Groundwater Recharge and Recovery Project by Kennedy-Jenks staff. The Lancaster Subbasin has the most potential storage capacity for groundwater recharge, although other recharge basin alternatives are still being investigated. Storm water and recycled water recharge options are being considered.

4. **Proposed East Cronese Lake Mitigation Bank, Mojave Watershed, San Bernardino County**
– Jan M. Zimmerman

Entrepreneur, Richard Lyons (“Sponsor”), has purchased a 300-acre parcel in the East Cronese Lake area of eastern San Bernardino County with the intent of establishing a mitigation bank (“Bank”) and providing mitigation opportunities for offsetting impacts to surface waters and associated habitats within the Mojave watershed. The Bank property is

(fringe) waters. The Bank property also possesses habitat for a number of rare and sensitive species including Desert Tortoise and Big-Horn Sheep.

Water Board staff visited the Bank property with the Sponsor, his consultants, and staff from the United States Army Corps of Engineers (USACE) and the California Department of Transportation (Caltrans) on April 9, 2014. The uniqueness of the Bank property is that Cronese Lake is inundated about once every ten years. The last time



traversed by the Mojave River overflow channel (a Mojave River distributary channel that flows to the north downstream of Afton Canyon) and includes a portion of East Cronese Lake with associated lacustrine and wetland

standing water was observed on the lake was in 2005. Groundwater beneath the area is relatively shallow at 10 to 15 feet below the ground surface. Despite the paucity of surface flows, the Mojave River

overflow channel has a well-defined bed and bank structure and the wetland areas meet the USACE three parameters for hydrology, hydric soils, and vegetation. This distinct suite of surface waters is common among other dry lake systems in the South Lahontan Basin.

The Sponsor is proposing banking opportunities that will focus on restoration, enhancement, and preservation of ephemeral stream and wetland habitats, as well as rare and sensitive wildlife habitats. The Bank would serve as mitigation for projects regulated under sections 404 and 401 of the Clean Water Act, Porter Cologne, and the California Fish and Game Code Section 1602. Currently, there are several large Caltrans projects that could benefit from this type of mitigation.

Within the next couple of months, the Bank Sponsor intends to initiate negotiations of banking terms with the USACE. Through that process, an Interagency Review Team (IRT) will be formed with cooperating state and federal agencies including the Lahontan Water Board, California Department of Fish and Wildlife, and the United States Fish and Wildlife Service. The IRT will work cooperatively together to define banking credits for the various waters and habitats on the bank property and to establish criteria for successful restoration and enhancement. Water Board staff will provide updates as negotiations progress.

5. **Bacteria Sampling in the Mojave River**
– *Jehiel Cass*

As part of its efforts to evaluate the bacteria Water Quality Objectives (WQO), Water Board staff is performing sampling of several surface water bodies in the Region. Prior to conducting the field work, Dr. Bruce Warden with the South Lake Tahoe office held an in-house

training session with Victorville staff to review techniques for surface water sampling.

Classroom training was followed by a practice field sampling event at the Mojave River at the Upper Narrows. While practicing the sampling, staff noticed numerous small camps along the river where the homeless appear to be living semi-permanently. Staff also observed trash embedded in the fine sediment of the river. Other Regional Boards are discovering increasing problems with homeless camps adversely affecting surface water quality. Results for practice sampling showed that the bacteria consisted completely of fecal coliform resulting in both analytes having the same results, which indicates significant concentrations of fecal coliform (300 and 500 MPN/100 ml), and total coliform (2,800 and 5,000 MPN/100ml). The Basin Plan WQO for coliform bacteria is that water shall not contain coliform attributable to human or livestock sources. Additionally, the fecal coliform concentration shall not exceed 20 MPN/100ml in a 30-day period. The highest sample result exceeds the WQO for fecal coliform by up to 25 times. Water Board staff will be evaluating the site information to develop recommendations for further action.

6. **Pacific Gas and Electric Company (PG&E) Waste Pit, Hinkley, San Bernardino County** -
Lisa Dernbach

Water Board Assistant Executive Officer issued an Investigative Order to the Pacific Gas and Electric Company (PG&E) on March 5 for additional information concerning a recently cleaned up site where unauthorized waste disposal occurred. The order directs PG&E to continue collecting water

samples from nearby monitoring wells and domestic wells and include additional analyses of those chemicals detected in soil and groundwater in the waste pit area. PG&E is required to submit quarterly monitoring reports to the Water Board starting July 30, 2014.

The order was issued in response to a report submitted by PG&E about a waste removal action on an 80-acre, PG&E-owned parcel in western Hinkley, approximately two miles west of the compressor station. The report was the first document received by the Water Board on the waste pit. During summer 2013, PG&E's contractor removed 54 tons of waste and soil from an unpermitted, 30-foot deep pit. The parcel had been used for dumping for decades by unknown parties. Wastes included household and automotive items, such as paint cans, oil containers, car parts, metal scrap, and wood debris. Hydrocarbon odors and staining were observed on waste and in soil at 17 feet below ground surface. All wastes removed were transported to a permitted landfill in Palmdale. The waste pit was backfilled with clean soil and the site restored.

Laboratory results detected various constituents in soil and water samples. For instance, metals, petroleum hydrocarbons, PCB, and volatile organic compounds were found in soil samples. Water samples from a monitoring well located on the parcel in the groundwater downgradient flow direction has shown chromium concentrations above background levels. Additionally, other constituents, such as arsenic, manganese, and total dissolved solids were detected in water samples above drinking water standards. Because chromium has also been detected above background concentrations in nearby off-site monitoring wells and some domestic wells, Water Board staff was concerned

about potential impacts from other constituents not included in laboratory analysis. During past wet years, groundwater levels could have risen and encountered waste in the pit and migrated from the site. Monitoring at the off-site locations will be able to determine whether potential threats exist to public health and receptors.