



EXECUTIVE OFFICER'S REPORT • April 2019

Covers February 16, 2019 – March 15, 2019

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State and Regional

1. **Personnel Report – Eric Shay**

New Hires

- Silvia Flores, Scientific Aid, Land Disposal Unit, Victorville. This position assists staff with administering land disposal, storm water, and water quality certification permitting actions, conducting inspections, reviewing reports, and maintaining databases.

Vacancies – We are currently recruiting for the following positions:

- Office Technician, Victorville. This position supports our technical staff by finalizing staff correspondence and board agenda packets.
- Scientific Aid, North Basin Regulatory Unit, South Lake Tahoe. This position assists staff with administering storm water and water quality certification permitting actions, conducting inspections, reviewing reports, and maintaining databases.
- Scientific Aid, Cleanup/Site Investigation & Enforcement Unit, South Lake Tahoe. This position assists staff with administering the site cleanup, underground storage tank, land disposal, and enforcement programs.
- Graduate Student Assistant, South Regulatory Division, Victorville. This position uses computer programming languages, key datasets, and an interactive mapping tool to assist staff in visualizing water quality data.

Departures – None

2. **Compliance Summary for Timber Waiver Monitoring Report January 15, 2019 Deadline**
– Jim Carolan

All the required Fall Implementation Monitoring Reports, representing 62 enrolled projects on both private and federal timberlands, have been submitted. However, due to the United States federal government shutdown that extended from December 22, 2018 until January 25, 2019, a significant number of federal project enrollees were unable to meet the January 15, 2019 reporting deadline. Once the federal government reopened, Water Board staff worked closely with federal project enrollees to facilitate the submittal of all the late Fall Implementation Monitoring Reports.

The 2014 Timber Waiver required enrollees to conduct fall implementation monitoring for projects enrolled in the three highest threats to water quality Categories 4, 5, and 6. Fall implementation monitoring is a visual assessment of the timber harvest and vegetation management area, roads, stream crossings, log landings, etc. to ensure all management practices designed to prevent sediment delivery and protect water quality (such as erosion control measures, activities with riparian buffers, and limitations on wet weather operations) are in place and secure prior to the winter period.

The Timber Waiver allows project implementers to submit a statement of non-operation and temporary suspension of monitoring if their project has not been operated on during the prior year. For the January 15, 2019 reporting period, 37 of the 62 Timber Waiver projects did not conduct operations during the 2018 season.

3. **Cannabis Regulatory Program Staff Presents at California Water Environment Association’s Annual Conference** - Timothy Middlemis-Clark

The California Water Environment Association’s Pretreatment, Pollution Prevention, and Stormwater Annual Conference was held on February 12, 2019 in Monterey, CA. Eastern California Regional Cannabis Unit staff TJ Middlemis-Clark, WRCE, helped to develop and co-present two presentations in coordination with Bryan Moore (WRCE with the Division of Water Quality Cannabis Regulatory Unit) and Leah Lemoine (WRCE with the Central Coast Regional Cannabis Unit).



Figure 1 - Presentation slide with the outreach event details

State and Regional Board staff presented material as a two-part session and answered audience questions throughout the session. The audience consisted of a mixture of wastewater treatment plant operators, drinking water treatment plant operators, and water quality consultants.

The first presentation focused on recapping the historical impacts on the environment, the regulatory role of the Water Boards regarding cannabis cultivation, and enrollment processes and challenges. Bryan Moore led most of this discussion with support from Leah Lemoine and TJ Middlemis-Clark.

The second presentation focused on challenges associated with regulating dischargers of cultivation wastewater, manufacturing wastewater, and potential water quality effects from local zoning ordinances geographically concentrating cannabis cultivation. Water Board staff presented and discussed with the audience cultivation and manufacturing waste, including tailwater from filtering irrigation water, tailwater from potted plants, and extraction activities. TJ Middlemis-Clark shared information on developing regulation to address water issues with total dissolved solids, challenges for getting cultivation waste to an appropriate wastewater treatment system, and the development of a general order for onsite treatment and disposal of industrial wastewater (including cannabis) in the Lahontan Region. The presentation also included information on new geospatial visualization tools which are providing a framework for identifying potential for pollution associated with permitted sites; illegally operating sites; feedback loops between water quality data and watershed-scale water quality impact assumptions; and communicating water quality information to the general public.

4. **Association for the Sciences of Limnology and Oceanography 2019 Aquatic Sciences Meeting** – *Jennifer Watts*

During her vacation in Puerto Rico, Jennifer Watts, Ph.D. Environmental Scientist in our TMDL/Basin Planning Unit, attended the Association for the Sciences of Limnology and Oceanography (ASLO) 2019 Aquatic Sciences Meeting at the Puerto Rico Convention Center in San Juan, Puerto Rico. ASLO states as its purpose, among other things, “to foster a diverse, international scientific community that creates, integrates, and communicates knowledge across the full spectrum of aquatic sciences (and) advances public awareness and education about aquatic resources and research”. Dr. Watts was interested in attending ASLO because when she presented her graduate research at a prior ASLO meeting she enjoyed the opportunity to hear about a wide range of freshwater and marine research. The theme of this year’s meeting was Planet Water: Challenges and Successes. The meeting included five full days of scientific presentations along with an exhibition of poster presentations and representatives from companies and institutions that focus on aquatic science. Each day there was a plenary session that featured a speaker and the presentation of various awards offered by ASLO in honor of important figures in the aquatic sciences. More information about ASLO and the 2019 Aquatic Sciences Meeting can be found at: <https://www.aslo.org/sanjuan2019/main>

Dr. Watts attended a field trip to the rain forest in the El Yunque National Forest to learn about the ecosystems in this unique habitat. This activity was described as an educational workshop about the role and importance of aquatic macro-invertebrates in freshwater quality in the Quebrada Sonadora River. This workshop sparked staff interest because of how aquatic macro-invertebrates are used in California as indicators of water quality in the state’s aquatic bioassessment program. In Puerto Rico, however, the macro-invertebrates they were referring to are freshwater shrimp, who themselves are responsible for maintaining water quality in the headwater streams where they reside in El Yunque. The field trip included visits to two different research stations located within the forest together with presentations by various researchers who are working to understand both the aquatic and terrestrial ecosystems in the area.

While at the research station, attendees were shown a short video about the important role the freshwater shrimp community plays in maintaining water quality in the streams in El Yunque by processing and consuming organic matter, including leaf litter that falls into the streams. This video can be found at: <https://www.youtube.com/watch?v=Nw-ks2jGNA>. It was quite a revelation to learn about this diverse community of freshwater shrimp and that these species migrate upstream from the estuaries near the coast to the higher portions of the watershed.



Figure 2 - Investigator from the University of Puerto Rico speaks to field trip group.



Figure 3 - Freshwater shrimp collected by Omar Perez-Reyes, a University of Puerto Rico professor, from a stream in the El Yunque National Forest

Field trip attendees also heard about other investigations taking place in El Yunque related to changes in the plant community and how the passage of Hurricane Maria opened up the forest canopy and changed the plant community composition in the area.

5. **Colorado Hill Mining District (Zaca Mine) CERCLA Action by U.S. Forest Service, Alpine County** – *John Steude*

From 2001 to 2005, the United States Forest Service Humboldt-Toiyabe National Forest (HTNF) conducted a “non-time critical removal action” under the Comprehensive Environmental

Response, Compensation, and Liability Act (CERCLA) at approximately one dozen abandoned mines in the Colorado Hill Mining District in Alpine County. Water Board staff participated in the CERCLA project as a member of the Technical Advisory Group and as a CERCLA Concurring Agency. As part of the CERCLA project, the HTNF installed a passive water infiltration system in 2005 to infiltrate acid mine drainage (AMD) discharging from the Lower Advance Adit of the Zaca Mine at a rate of approximately 10 gallons per minute. The infiltration system was designed and constructed to prevent surface water discharges to Monitor Creek by distributing and infiltrating AMD into the roadway shoulder along a 500-foot length of State Route 89, approximately five miles southeast of Markleeville.



Figure 1 – Acid mine drainage discharging from Zaca Mine Lower Advance Adit

The passive system operated without benefit of maintenance operations from 2005 to 2017 when Water Board staff observed AMD bypassing the infiltration system (see Figure 1) and flowing on the surface adjacent to State Route 89 for approximately 100 feet before infiltrating (see Figure 2). Water Board staff notified HTNF staff in October 2017 about the AMD remedy failure at Zaca Mine. Onsite meetings with Water Board and HTNF staff were held in 2017 and 2018. HTNF staff informed Water Board staff that the slotted infiltration pipes had become clogged with precipitate and fine-grained sediment causing AMD to bypass the infiltration system. HTNF staff immediately recognized the need to rehabilitate the system with minor modifications designed to facilitate routine system maintenance to prevent future remedy failures.

HTNF staff expects to have final design completed by the end of March 2019 and to complete the project during the fall of 2019. HTNF staff has worked cooperatively with Water Board staff on the project scope and design and has incorporated project provisions to ensure the soil and rock material blocking the portal of the Lower Advance Adit are not disturbed during the project to prevent an uncontrolled release of AMD from the Lower Advance Adit during project construction.



Figure 2 – Acid mine drainage flowing along shoulder of State Route 89

South Lahontan Region

6. Sustainable Groundwater Management Act Update – *Shelby Barker*

On January 18, 2019, Water Board staff spoke with State Board staff to give a status update on the Sustainable Groundwater Management Act (SGMA) within the Lahontan Region. The Department of Water Resources (DWR) had recently released their draft 2018 boundary modifications. The only groundwater basin affected by the boundary modification within the Lahontan Region is the Owens Valley Groundwater Basin, which excluded the Starlight Estates located southeast of Bishop based on “scientific reasoning,” stating the area’s hydrologic conditions are hydrologically separate from the Owens Valley Groundwater Basin. Additionally, DWR is currently reviewing the status of the Owens Valley Groundwater Basin to determine if the agreement between Inyo County and the Los Angeles Department of Water and Power (LADWP) will be treated as an adjudication under SGMA. Inyo County and LADWP have an existing Memorandum of Understanding to establish water rights between the two agencies for surface and groundwater in the Owens Valley Groundwater Basin.

DWR has also completed their 2018 Final Prioritization for groundwater basins. A total of five basins were dropped to low or very low in priority, meaning that the Groundwater Sustainability Plan (GSP) is optional and not required for these basins. Several basins, such as the Mojave River Valley Groundwater Basin, were reduced in priority due to the basin being within an adjudicated area. Additionally, the Martis Valley Groundwater Basin was removed entirely from DWR’s designated priority list due to its groundwater extraction being limited to 9,500 acre-feet or less annually and because there are no known groundwater impacts. Groundwater basins meeting such criteria are automatically given zero points under the metrics system used by DWR for SGMA ranking and removed from the list of groundwater basins to be monitored. No groundwater basins within the Lahontan Region were increased in priority.

Within the Lahontan Region, Indian Wells Valley and Tahoe Valley Groundwater Basins remain on the priorities list as high-and medium-priority basins, respectively, and are expected to meet the January 2020 deadline for SGMA compliance. The Groundwater Sustainability Agency

(GSA) for the Tahoe Valley Groundwater Basin has submitted an alternative plan in lieu of a GSP, specifically addressing South Lake Tahoe, which is presently in review with DWR.

DWR is also updating Bulletin 118 based on the recent changes to groundwater basin boundaries and other technical updates.

7. Mojave Water Agency Launches “Today in Water” Series - *Jehiel Cass P.E.*

The Mojave Water Agency (MWA) started a new talk-show like program called “Today in Water.” The MWA General Manager, Mr. Tom McCarthy, intends to periodically invite different guests and spend an hour and half discussing different water-related topics and invite audience questions.

The first event was held on March 5, 2019, with about 35 persons present. Mr. McCarthy provided a brief review of current water events including: photographic maps of recent California snow cover as compared to previous years, results of recent CA Department of Water Resources snow surveys indicating the snow pack is at 153% of normal, an update on the Sacramento Delta tunnel project known as the California Water Fix which would construct only one tunnel providing 2/3 the volume of the initially conceived two tunnels, and status of Oroville Dam repair work completed over the last two years.

Mr. McCarthy then shifted to a discussion with guest Mr. Ed Muzik, General Manager of the Hi-Desert Water District (HDWD) in Yucca Valley and current board member of the Colorado River Regional Water Board, both since 2007.

A major project of the HDWD is to install a new domestic sewage collection system, construct a new wastewater treatment plant, and complete the closeout of septic onsite wastewater treatment systems (OWTS). Until now, the entire city of Yucca Valley has relied upon OWTS for sewage disposal. Because the community also relies exclusively on groundwater for its drinking water, data indicated over time that groundwater was degraded and sometimes polluted from nitrates and other contaminants.



Figure 1 – Mr. Tom McCarthy, Mojave Water Agency General Manager and Mr. Ed Muzik, Hi-Desert Water District General Manager in discussion March 5, 2019.

In 2011, the Colorado River Regional Water Board issued a resolution prohibiting further discharges from OWTS, after certain dates established in the prohibition order. Numerous federal and state grants or loans were received to fund the project and the Town of Yucca Valley passed a ½ cent sales tax. Additional revenue is collected from property assessment taxes. Mr. Muzik estimated the average customer’s assessed cost at about \$500 per year, plus service fees. Extensive public outreach was involved in gaining public support for the project. A key effect was including street improvements and re-paving as the gravity sewer collection system

was installed. This allowed citizens to experience immediate benefit and generally increased project support. HDWD is planning to complete all phases of the project by 2025.

This project is particularly relevant as there are many communities in the South Lahontan Basin relying upon groundwater, using OWTS, not having a community sewerage collection and treatment system available, and experiencing increasing groundwater quality degradation.