



EXECUTIVE OFFICER'S REPORT • March 2020
Covers January 16, 2020 – February 15, 2020

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State and Regional

1. Personnel Report – Eric Shay

New Hires

- None

Promotions

- Mary Fiore-Wagner has promoted from Senior Environmental Scientist (Specialist) to Senior Environmental Scientist (Supervisor), South Lake Tahoe. This position oversees the Non-Point Source Unit, whose tasks include issues such as grazing, harmful algal blooms, 319(h) grants, Lake Tahoe Total Maximum Daily Load (TMDL), Lake Tahoe nearshore, Mono Lake, and management of our in-house laboratory.

Vacancies – We are currently recruiting for the following positions:

- C.E.A. (Career Executive Assignment) to serve as the Region's Assistant Executive Officer.
- 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; reviewing reports, and maintaining databases; reviews self-monitoring reports for cases, permits and enforcement actions; reviews project files and water quality data to prepare for field inspections and permit updates; assists with field inspections; and reviews California Environmental Quality Act documents.
- Engineering Geologist, Department of Defense / Site Cleanup Program Unit, Victorville. This position analyzes threat of pollutants to groundwater and surface waters, reviews technical reports for cleanup strategies, reviews site investigation results, reviews proposed cleanup alternatives to ensure compliance with water quality objectives, prepares enforcement orders, investigates spills, and conducts inspections of cleanup sites and facilities.
- Water Resource Control Engineer, Wastewater Engineering Unit, Victorville. This position provides regulatory oversight of projects involving discharges to ground or surface waters and projects intended to restore and/or enhance water quality.

Departures – None

North Lahontan Region

2. Lassen County Local Agency Management Program Postponed – Trevor Miller

Water Board staff and Lassen County Environmental Health Department staff presented and recommended approval of the Lassen County Local Agency Management Program (LAMP) to the Lassen County Board of Supervisors (County Supervisors) at their meeting on January 21, 2020. Despite the recommendation, the County Supervisors motioned to defer a vote on the LAMP until their next meeting on January 28, 2020. However, the County Supervisors presented its staff with specific questions and comments prior to the January 28, 2020 meeting, leading County staff to postpone the matter to an undetermined date in order to prepare answers to the County Supervisors' questions.

The County Supervisors are concerned about the "unintended consequences" that the LAMP may impose. Primarily, the County Supervisors are concerned that the LAMP may stifle growth and development within Lassen County based on minimum lot size requirements and discharge density limitations. Another concern is that the LAMP would force small communities, or those communities with groundwater impacts, into creation of a centralized wastewater collection/treatment system, resulting in additional fees. Finally, the County Supervisors want to see as much flexibility in the LAMP as possible to help promote growth within Lassen County. Water Board staff continues to work with County staff to get the LAMP approved by the County Supervisors in the next few weeks and present the LAMP at the Water Board's April 29, Board meeting.

3. Stringfellow Superfund Site Tour

On January 22, 2020, Leviathan Mine staff met with personnel from the Department of Toxic Substances Control (DTSC) at the Stringfellow Superfund Site near Glen Avon, California. The Stringfellow Superfund site has many elements in common with the Leviathan Mine Superfund site, most notably that the State of California is identified by the USEPA as a responsible party.

In the case of Stringfellow, DTSC recently (2013-2016) built the Pyrite Canyon Treatment Facility (PCTF) at the cost of \$52 million. The PCTF was built by DTSC using a process very similar to that which will be undertaken in the foreseeable future by the Water Board at Leviathan Mine. Leviathan Mine staff was interested in discussing how DTSC navigated pilot testing, funding needs, treatment plant design, construction funding, and construction. DTSC personnel repeatedly stressed the importance of the Water Board having a strong project manager as a single point of contact during the design and construction of any new facilities at Leviathan Mine.



Figure 3.1 - Water Board staff touring the PCTF at the Stringfellow Superfund Site

In addition to the discussion, DTSC personnel provided a tour of the PCTF which was completed in 2016. The PCTF includes treatment processes to reduce the concentration of volatile organic compounds, pesticides, and heavy metals found in groundwater at the Stringfellow Superfund Site. The Tour was informative and Leviathan Mine staff will use the information shared by DTSC personnel in the future during project design, contracting, and construction management at Leviathan Mine.

4. Bishop Creek Vision Project Data Update – *Ed Hancock and Cindy Wise*

Staff from Los Angeles Department of Water and Power’s (LADWP) Bishop and Los Angeles offices, its consultant Marine Biological Consultants Aquatic Sciences (MBC), and

the State Water Board joined Lahontan Water Board staff on February 10, 2020 to discuss water quality data associated with development of the Bishop Creek Vision Project (Vision Project). The intent of the Vision Project is to focus management actions in the Bishop Creek watershed in a manner that leads to attainment of water quality standards in a shorter timeframe compared to the development of a more traditional, Total Maximum Daily Load (TMDL).

Jacob Kaplan, staff in the Surface Water Quality Assessment Unit in the Division of Water Quality at the State Water Board, began the meeting by explaining the evaluation and analysis processes used for data that are considered in development of the Integrated Report (IR). The IR identifies impaired water bodies to be included on the Clean Water Act 303(d) list. Mr. Kaplan focused on how the bacteria data were used in the listing of Bishop Creek as an impaired water. He concluded by describing the process that LADWP and MBC would use to ensure that recent data collected by these organizations are submitted for consideration in the next IR cycle.

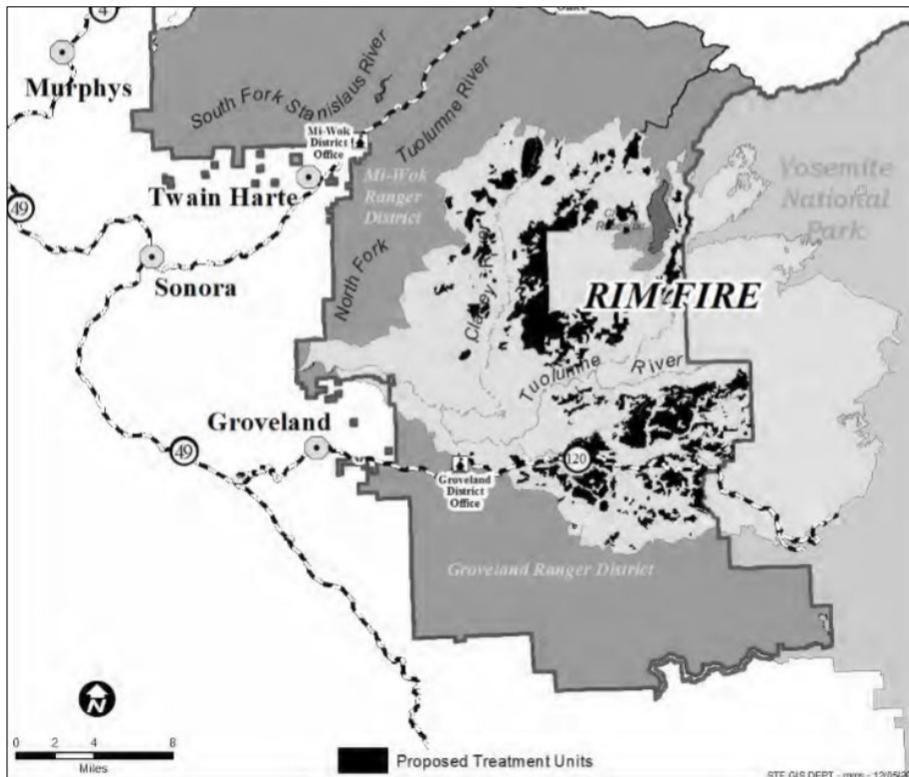
Lahontan Water Board staff followed by presenting its analyses of three main sets of bacteria data for the Bishop Creek Vision Project study area from the following sources: Bishop Paiute Tribe, LADWP/MBC, and the Lahontan Water Board's Surface Water Ambient Monitoring Program (SWAMP). Common to all sets of data was a pattern of seasonal contamination, generally showing higher bacteria concentrations coincident with the irrigation season in the watershed. Bacteria contamination of a surface water poses risks to human health, and the contamination period in Bishop Creek coincides with major contact recreational uses (i.e., REC-1) of the creek. Bacteria concentrations are significantly lower in the creek during winter. Data collected by LADWP/MBC in 2019 indicated an improving trend in water quality downstream of locations where grazing management practices have been installed. The three data sets also revealed similar "hot spots" areas with high bacteria levels associated with samples immediately downstream of land uses, such as grazed pastures. Staff then described the Lahontan Water Board's microbial source tracking (MST) data from 2013 and 2014. This data set specifically identifies cows as a primary contributing source of the high bacteria levels in Bishop Creek. LADWP agreed to share its MST data with Regional Board staff so that the LADWP MST data can be evaluated by the same assessment methodology used with the Lahontan Water Board's (2013-2014) MST data.

The meeting concluded with a discussion of a sampling effort planned by Water Board staff for the Vision Project study area during the spring and summer of 2020. The focus of this sampling effort is to gather MST data for other potential controllable sources of bacteria in the study area, such as from humans, dogs and horses. LADWP Bishop staff shared its observations of increased homeless encampments in the study area and offered to provide information about legacy septic systems that could be impacting Bishop Creek. All participants agreed that the meeting was both productive and informative, and that similar meetings will be held in the future as development of the Vision Project continues.

5. Cross-Training opportunity on the Stanislaus National Forest – *Tiffany Racz*

Recently hired staff in the Forestry/Dredge & Fill Unit at the Lahontan Water Board, were invited by the Central Valley Water Board Timber Unit to participate in an inspection with the Stanislaus National Forest staff in early February 2020. The inspection provided an opportunity for Water Board staff to cross-train with more experienced staff at another Regional Water Board to look at post-wildfire recovery and restoration efforts on federal lands.

The inspection included six locations affected by the 2013 Rim Fire, timber harvest activities, and a series of damaging 2017 rain-on-snow events. The completed and partially completed projects included a roadside landslide, a repaired road collapse, a restored spring impacted by heavy equipment, a failing ford crossing, and a blocked culvert inlet causing sediment deposition and subsequent hillslope erosion.



The Rim Fire burned 257,314 acres, including 154,430 acres of United States Forest Service (USFS) land. At the time, the Rim Fire was recorded as the third largest wildfire in California history. The post-fire restoration and rehabilitation includes 315 miles of road reconstruction and 164 miles of road maintenance to improve and protect water quality.

Figure 5.1 - Rim Fire Recovery Vicinity Map

Some key takeaways from the inspection and cross-training experience include:

- The effect of rain-on-snow events in burned areas can significantly increase the magnitude of erosion and water quality impacts.
- USDA Forest Service units often lack funding to implement projects focused strictly on water quality protection and often attempt to pair these efforts with other funded management projects.
- The intermixing of commercial logging on private land and adjoining USFS land can benefit and sometimes complicate USFS road operation and maintenance, as well as water quality restoration projects.



Figure 5.2 - Partially completed restoration of a landslide on a main timber access corridor. Hillside collapse occurred after a series of 2017 rain-on-snow events.



Figure 5.3 - Timber access road fill slope collapse from intercepted surface water conveyance.



Figure 5.4 - Creek hillside damaged from timber harvesting equipment. Rock fill was used to prevent sediment delivery to the creek below.

6. California Water Environment Association’s Pretreatment, Pollution Prevention, and Stormwater Conference – Timothy (TJ) Middlemis-Clark

TJ Middlemis-Clark, Eastern California Cannabis Regulatory Unit, developed and co-presented a workshop to the annual California Water Environment Association’s Pretreatment, Pollution Prevention, and Stormwater Annual Conference (CWEA P3S Conference) on January 27, 2020. The presentations were coordinated with Celia Pazos, South Coast Cannabis Regulatory Unit, and requested by Berlinda Blackburn, City of Coachella Water Authority and Sanitary District.

State and Regional Board staff presented the 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.

Celia Pazos, South Coast Cannabis Regulatory Unit, provided the first presentation, focusing on the Water Board’s regulation of cannabis cultivation, demonstrating the typical drainage collection methods at indoor cannabis cultivation facilities, and presenting the wastewater data analyzed to date under a project led by the South Coast Cannabis Regulatory Unit.

TJ Middlemis-Clark provided the second presentation, focusing on the need and timeline for development of a draft regional general order for onsite treatment and disposal of industrial wastewater (including cannabis) in the Lahontan Region. The focus of the presentation was on the abundance of cannabis cultivation facilities who currently haul wastewater to community sewer systems for treatment and disposal. TJ Middlemis-Clark explained the environmental impacts of the current practices and how the draft order is intended to protect water quality.



Figure 6.1 - Logo from the 2020 CWEA P3S Conference.

7. Leviathan Mine Contract State Water Board Resolution – *Hannah Bartholomew*

On January 21, 2020, the State Water Resources Control Board (State Water Board) adopted Resolution No. 2020-0003 expanding State Water Board Executives' (Executive Director, Deputy Director of Division of Water Quality, and Deputy Director of Division of Administrative Services) delegated contracting authority for work at Leviathan Mine. State Water Board Executives can now execute on behalf of the State Water Board Leviathan Mine-related contracts, interagency agreements, and amendments with contract values up to \$1,000,000.00 per fiscal year and contract terms up to five years. Previously, State Water Board Executives' and Executive Officer's delegated authority was limited to a total contract value of \$750,000 over a maximum three-year contract term.

The adopted Resolution will improve the Water Board's ability to maintain continuity in Water Board contracts for site monitoring, technical evaluations, operations and maintenance, and remediation work required by the United States Environmental Protection Agency (USEPA). Water Board staff relies upon contractors to monitor the water levels in mine site ponds that hold acid mine drainage (AMD) and to operate and maintain stream flow gaging stations in and around Leviathan Mine. Water Board staff also relies upon contractors for long-term site operations and maintenance, which in recent years has included stabilizing two onsite slope failures/landslides that threatened site infrastructure and access to the Water Board's Pond Water Treatment Plant, patching concrete within the Leviathan Creek conveyance channel, conducting technical evaluations to ensure the site infrastructure is in proper functioning condition (including AMD conveyance lines, valves, stormwater controls, AMD holding pond liners, and integrity of large reactor tanks), and maintaining onsite roadways and fencing that surrounds the site.

As the Leviathan Mine site moves closer to a final remedy in the CERCLA process, contract work is going to increase in extent, duration, and complexity. The adopted Resolution is expected to begin streamlining contracting processes and allowing for greater flexibility in meeting the current and future challenges at Leviathan Mine. Doing so will allow the Water Board to more effectively and efficiently maintain the State's water

pollution abatement infrastructure, develop new infrastructure as necessary, and maintain compliance with USEPA orders.

In addition to the Resolution, Water Board staff has begun to reach out to State Water Board staff and staff of other state agencies who have implemented large remediation projects to understand how they were able to accomplish their project goals within the State contracting system. Water Board staff has met with the Department of Finance, the Department of General Services, and Department of Toxics and Substance Control to gain an understanding of what funding and contracting opportunities and challenges are forthcoming as the Leviathan Mine site moves closer to a final remedy. The adoption of Resolution No. 2020-0003 is one example of how the Water Board is moving forward with streamlining and efficiently managing contracts into the future at Leviathan Mine.

South Lahontan Region

8. Earthquake Damage Assessment at Naval Air Weapons Station China Lake – Christopher Avalos

On July 4 and 5, 2019, Naval Air Weapons Station China Lake (NAWS China Lake) and the surrounding communities (including Ridgecrest and Trona) experienced two strong earthquakes that created severe shaking and ground rupture across much of the area. NAWS China Lake experienced significant damage as a result of the shaking. Following the July 4 and 5 earthquakes, Water Board staff requested that the Navy assess the potential impacts to water quality as part of their damage assessment. As part of that evaluation, the Navy inspected and assessed the following base systems: potable water system, bulk fuel storage areas (underground and above ground storage tanks), hazardous waste management areas, the wastewater treatment plant and associated subsurface infrastructure, and buildings and other infrastructure. In addition to inspecting base facilities, the Navy also inspected the groundwater monitoring well network, the remedial systems that are present at various environmental sites across the base, and landfill covers at two sites, Sites 6 and 12.

The base system evaluations concluded that most of the base-related items did not appear to have any major damage or impact to water quality. There was one potable water conveyance line that broke, which was temporarily repaired and made operational until the line can be properly replaced. The gas stations and associated tanks did not appear to have been damaged and will be monitored periodically as required under the associated compliance monitoring programs. No damage was identified at the hazardous waste storage areas. The sanitary sewer system is currently being scoped (video surveyed), however, no damage has been identified to date. All emergency generators were operable. Spills in individual buildings were not assessed until it was safe to enter them. Although some entry has been granted and some minor spills were noted, none of the identified spills were considered large enough to have resulted in a release to the environment.

Damage to sites currently undergoing remediation under the Navy Environmental Program were also evaluated. Some monitoring well structures sustained minor damage (damaged well casings and concrete pads were cited), with one well noted to have an obstruction at depth. Water and free-product levels varied in some monitoring wells in comparison to measurements made prior to the earthquakes. The remedial systems do not appear to have sustained any major damage. Landfill cover inspections were performed at the two landfill sites. Site 6 appears to have cracks on the surface of two of four areas at the landfill and an erosional channel may have been enlarged at Site 12. Overall, however, the

damages to the two landfill sites were minimal, and no waste was exposed as a result of the earthquakes.

The Navy is preparing a contract to conduct a more thorough evaluation of possible impacts from the earthquakes. It is anticipated that the work will take place throughout 2020. Under this contract, the Navy will evaluate all groundwater monitoring wells on the base. The groundwater monitoring wells will be inspected (video-taped, if warranted) and resurveyed. The contract will also include repair of as much damage as possible. Results of this evaluation will be reviewed by Water Board staff to further evaluate the threat to groundwater and water quality.

9. 2019 Ridgecrest Earthquake Response, Trona and Pioneer Point Wastewater Collection, Treatment, and Disposal Systems – *Jehiel Cass*

The San Bernardino County, Special Districts Department, operates a wastewater collection, treatment, and disposal system for the communities of Trona and Pioneer Point (County Services Area [CSA] No. 82), located along the northwestern edge of Searles Dry Lake, east of Ridgecrest. The major local employer is the Searles Valley Minerals Corporation. The communities experienced two major earthquakes on July 4 and 5, 2019 (magnitudes 6.4 and 7.1, respectively). The communities are shown on Figure 9.1.

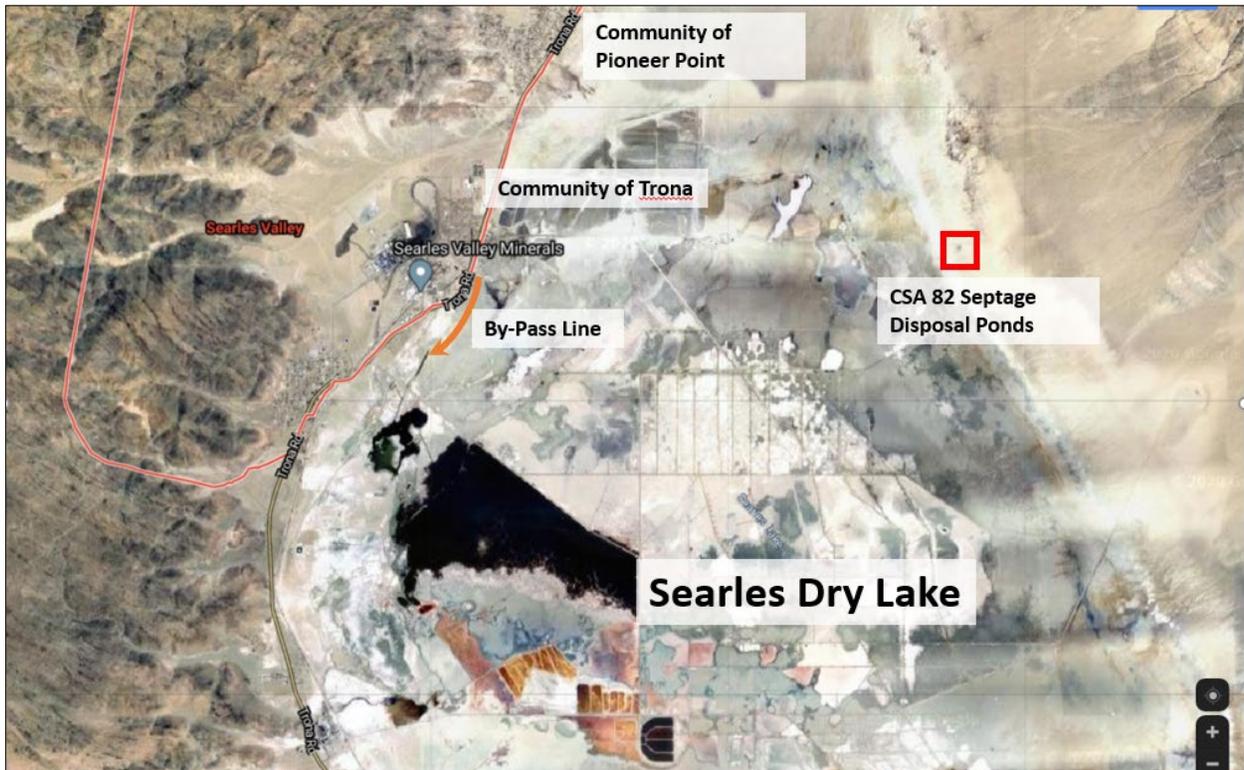


Figure 9.1 - Communities of Pioneer Point and Trona, adjacent to Searles Dry Lake, San Bernardino, about 25 miles east of Ridgecrest CA.

The Water Board regulates the sewer collection system as an enrollee under general waste discharge requirements adopted by the State Water Resources Control Board (State Water Board) Order WQO 2006-0003-DWQ and the treatment and disposal system under Water Board Order No. 6-94-059.

San Bernardino County Special Districts Department, Water and Sanitation Division (Division) staff were immediately dispatched to Trona during and after the earthquakes. Working with contractors, the Division inspected and cleaned the sewer main lines and seven large septic tanks used for treatment. After completing closed circuit television

(CCTV) inspections, the Division repaired collapsed pipelines, off-set joints, and any damaged pipelines identified that required open excavations. Due to shallow groundwater and soil conditions, some of these excavations were extensive.

During this time, the communities were without power and water. After setting up an emergency operations center, the Division provided hauled water daily from the City of Ridgecrest to support sewer cleaning work. Bottled water was provided to residences. Because normal water delivery was unavailable to residents at the beginning of recovery efforts, there was no sewer flow during many of the Division's critical repairs. On August 15, 2019, after water service was restored to the communities, the main Trona septic tanks' outfall effluent pipeline began spilling due to the earthquake damage. The Division notified the Water Board and installed a temporary bypass pumping system (identified as By-Pass Line on Figure 8.1), which required daily checks to keep both the Division and Searles Valley Mineral Company from spilling effluent locally as the outfall line is connected to a common header for both. The bypass pumping system continued in operation until flow to the outfall line was restored on January 26, 2020, involving multiple repairs to approximately 3,000 feet of effluent outfall line.

Many of the identified damaged locations are still pending repair due to the depleted financial reserves in the Divisions accounts. As reserves are replenished by reimbursement payments from the California Office of Emergency Services, the Division will continue earthquake-related repairs. During the entire event and with the most critical repairs completed, Division customers did not experience sewer service outages. The Division recognized and thanked Water Board staff for their assistance and partnership during this catastrophic event. District photographs of recovery operations follow (Figures 9.2 to Figure 9.5).



Figure 9.2 - View to north, along CA Highway 178, during replacement of failed collection system pipes.



Figure 9.3 - View to east, main Trona septic tanks are pumped, cleaned, and inspected. Removed septage was disposed in the CSA 82 disposal ponds located on the east side of Searles Dry Lake.

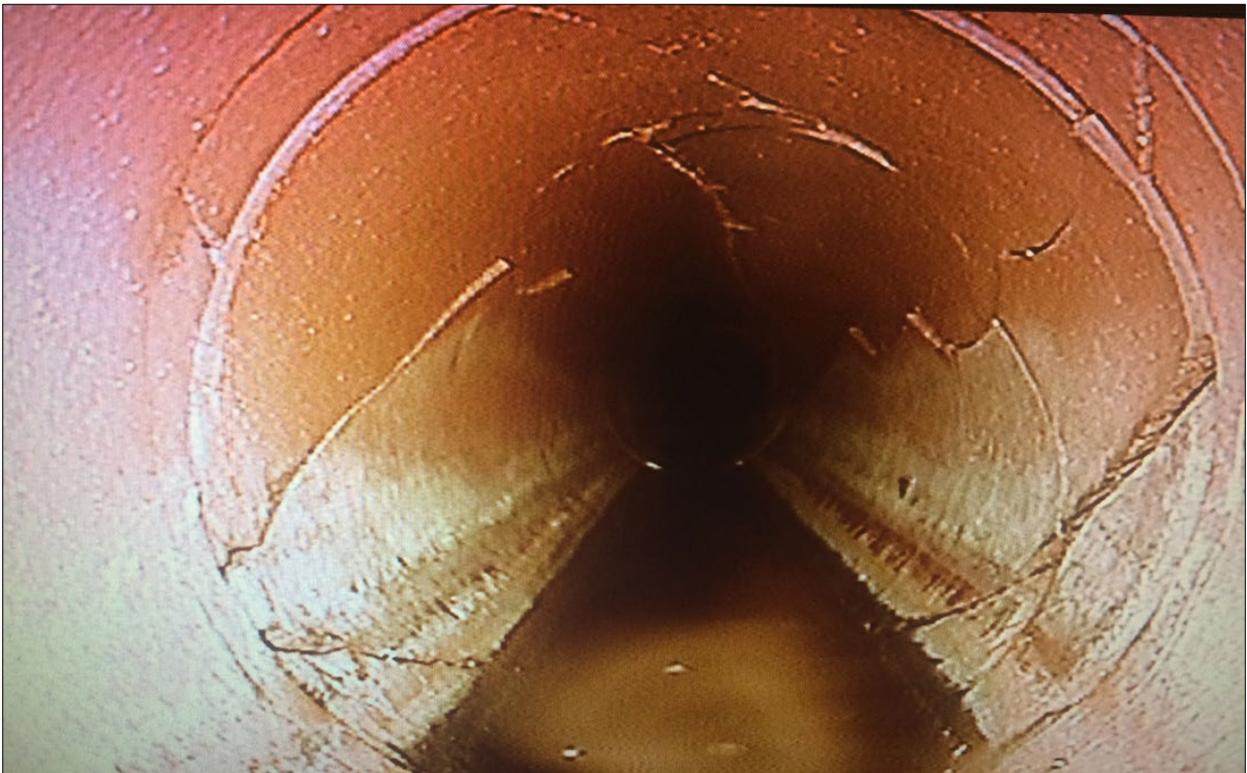


Figure 9.4 - Example of damaged vitrified clay sewer collection system pipeline.



Figure 9.5 - Project to restore flow in the effluent outfall pipeline after earthquake changed infrastructure elevations.

10. Antelope Valley Integrated Regional Water Management Group Update – Tiffany Steinert

The Antelope Valley Integrated Regional Water Management (IRWM) group held a stakeholder meeting in Palmdale on January 15, 2020, to discuss the Antelope Valley IRWM Plan updates. The meeting was organized and attended by members of the Antelope Valley IRWM group, as well as Water Board staff, Tiffany Steinert, Engineering Geologist.

The meeting began with a presentation by the consultant, Woodard and Curran, providing an overview of the changes to the draft Antelope Valley IRWM Plan update. The group was informed that the Antelope Valley IRWM Plan updates were complete and ready for review by the members. The Antelope Valley IRWM plan updates include changes to the following sections: Antelope Valley Adjudication – native safe yield and total safe yield; Water Supply & Demand Analysis – urban demand; Objectives – dates extended through 2040; and Projects – reflects current projects. Woodard and Curran stated that the draft Antelope Valley IRWM Plan was submitted to the Department of Water Resources (DWR) by the October 18, 2019 due date.

Woodard and Curran gave a quick review of the Proposition 1 funding reiterating that DWR review updates are due January 17, 2020, and they expect good news. The Antelope Valley IRWM group initially requested \$3,885,000 and revised that amount upwards to \$3,895,000 to cover project needs. DWR inquired about disadvantaged community outreach to ensure such projects were also being considered for funding. The Antelope Valley IRWM group confirmed that disadvantaged community outreach was being done.

The meeting concluded with the scheduling of the next Antelope Valley IRWM meeting, which will be held on April 15, 2020.

11. Standing Item – City of Barstow Nitrate – Jehiel Cass

This article describes the compliance status for the City of Barstow (City) with waste discharge requirements (WDRs) and various compliance orders issued by the Water Board regarding historical disposal practices from its wastewater treatment plant.

Waste Discharge Requirements

In July 2019, the Water Board adopted revised WDRs in Board Order No. R6V-2019-0252 for the City's wastewater treatment plant discharges, replacing previous Board Order No. 6-96-26. Separately, the Water Board rescinded Cease and Desist Order No. R6V-2004-0029. The City remains in compliance with Board Order No. R6V-2019-0252 requirements.

Nitrate Pollution Groundwater Cleanup

The Water Board adopted Cleanup and Abatement Order (CAO) No. R6V-2013-0045, requiring the City to address nitrate polluted groundwater on the north side of the Mojave River. The cleanup status is unchanged and on hold until a comingled perchlorate plume, not the City's responsibility, is addressed. The following quotation from the March 2019 report to the Water Board remains accurate.

The CAO required the City to design and construct a system to capture and treat nitrate polluted groundwater downgradient of the North Irrigation Field in the Soapmine Road neighborhood. Since issuance, four amendments to this CAO provided the City additional time to comply with CAO requirements because a perchlorate plume was discovered near the City's nitrate groundwater plume. The perchlorate plume is migrating from a contaminated property about three miles upgradient of the City's nitrate source area (formerly used North Irrigation Field). The City is not responsible for the perchlorate pollution, but the two plumes of perchlorate and nitrate are now co-mingled in the Soapmine Road area. Both plumes are moving eastward along the Mojave River. Water Board and City staff agreed that the perchlorate and nitrate groundwater pollution should be addressed simultaneously.

Residential Well Sampling and Replacement Water in the Soapmine Road Area

The City continues to conduct quarterly sampling of residential drinking water wells in the Soapmine Road area, as required by CAO No. R6V-2007-0017. During first quarter 2020, the City sampled 37 residential wells. Analytical results show that one residential well measured nitrate (as nitrogen) concentrations exceeding the drinking water maximum contaminant level (MCL) for nitrate of 10 milligrams per liter (mg/L). A total of 10 private wells showed nitrate concentrations exceeding 5 mg/L (the level at which the CAO requires replacement drinking water delivery). The nitrate concentration trends appear to be decreasing in some residential wells and increasing in others. Currently, the City is

providing 16 residents within the required study area with uninterrupted replacement water service (bottled water).

Water Board staff are reviewing the following requests made by the City to modify its residential well sampling requirements in CAO No. R6V-2007-0017.

1. Reduce the sampling frequency for nine private residential domestic wells that have consistently detected less than 5 mg/L (since sampling inception in 2006) to a semiannual basis and continue quarterly sampling for the remaining private production wells located in the Soapmine Road Neighborhood, and
2. Update the nitrate replacement drinking water delivery value stated in the CAO (5 mg/L) with the drinking water maximum contaminant level of 10 mg/L. The City's consultant recommends modifying the CAO based on the historical laboratory results. Since first quarter 2015 (for 5 consecutive years), only one private well has intermittently exceeded the nitrate MCL, and all other private wells have remained below this level. The City proposes to continue to provide uninterrupted replacement water supply for all private domestic wells north of the Mojave River if nitrate concentrations are 10 mg/L and above and continue to test all private domestic wells four times a year. The City recommends ceasing supply of uninterrupted water service if two years (8 consecutive quarters) of testing indicate that nitrate concentrations are less than 10 mg/L.

12. Standing Item – City of Barstow Orphan Perchlorate – *Alonzo Poach*

Site Characterization Report

Site characterization work at the source area property was conducted in May and June 2019 by APTIM, Inc (APTIM), the Water Board's contractor. APTIM submitted the Draft Perchlorate Site Characterization Report (Draft Report) for review on January 30, 2020. The Draft Report summarizes the results of 111 soil samples and 11 groundwater samples and provides data analysis. In addition, the Draft Report includes contaminant fate and transport modeling and recommendations for remediation alternatives to be evaluated in an upcoming pilot-scale remedial design work plan. Finalization of the Draft Report is expected by March 2020. The Draft Report recommends evaluation of in-situ bioremediation, using soil flushing for the vadose zone at the source area, and ex-situ (pump and treat) technologies for the more dilute portions of the plume further downgradient near Interstate 15 and the eastern Soapmine Road area.

Status of Bottled Water Funding

In June 2018, the Lahontan Region was awarded a grant of \$57,600 from the State Water Resources Control Board to provide replacement bottled water for up to 40 residents affected by the perchlorate plume. Currently, 17 residents are impacted by perchlorate concentrations at or above the California maximum contaminant level (MCL) of 6 micrograms per liter ($\mu\text{g/L}$). To be eligible for bottled water, residents must meet disadvantaged community (DAC) income criteria. Currently, 5 of the 17 impacted residents who met the DAC criteria are being supplied replacement bottled water. Recently, the Lahontan Region was granted a funding extension allowing bottled water funding through June 2023. This will enable the Water Board to provide replacement bottled water to impacted residents that meet DAC income criteria guidelines as remediation efforts progress through our Site Cleanup Subaccount Program funding source.

Status of the Perchlorate Plume

Water Board staff collected fourth quarter 2019 samples from 20 monitoring wells and 38 private residential wells within and around the perchlorate plume area. The plume is approximately 2.5 miles long, as defined by perchlorate concentrations above the 6 µg/L MCL. Figure 12.1 shows the current plume extent based on the data collected in October 2019.

Next Steps

- APTIM will prepare a Pilot-Scale Remedial Design Work Plan to remediate soil and groundwater in the source area.
- Begin quarterly monitoring of newly installed groundwater monitoring wells MRP-MW-1A, MRP-MW-1B, MRP-MW-2, MRP-MW-3, and MRP MW-4 quarterly.
- Continue quarterly sampling of private residential wells. The next sampling event is scheduled for April 2020.

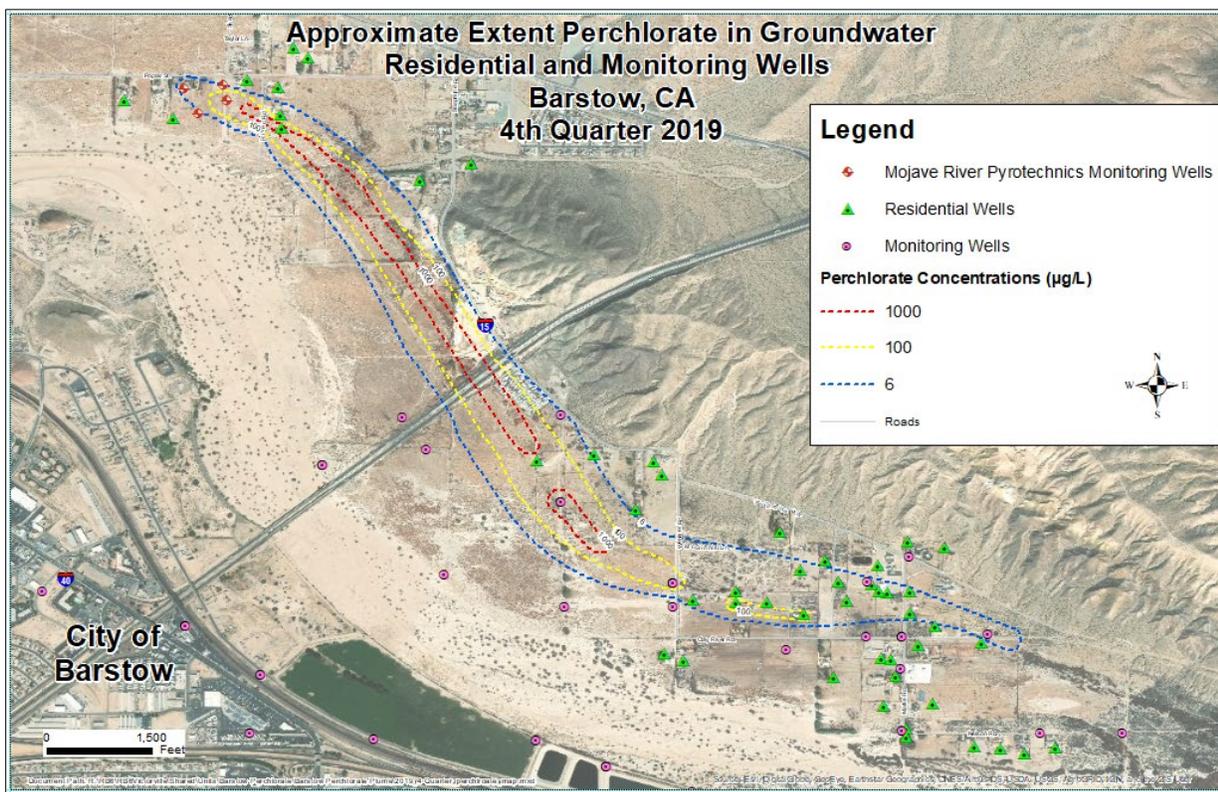


Figure 12.1 - Barstow Perchlorate Plume extent, as of October 2019.

13. Groundwater Monitoring Near Wrightwood – Jehiel Cass

As far back as the May 1975 Water Quality Control Plan for the South Lahontan Basin, the Water Board has recognized that a Wrightwood community wastewater collection and treatment system should be considered at some time in the future. Toward this consideration, a groundwater monitoring well had been installed and was being monitored by the San Bernardino County Services Area (CSA) 56 to profile groundwater downgradient of Wrightwood during the term of Board Order No. 6-76-38, which was rescinded on June 19, 2013. As CSA 56 was no longer under any requirements to monitor the well, monitoring ceased. With the formation of the Wrightwood Community Services

District (District), Water Board staff revisited monitoring this well again with District staff during a meeting in October 2019.

The District appointed a subcommittee of two of its board members, Wes Zuber and Natalie Lopiccolo, to investigate the well sampling issue in coordination with Water Board staff and other interested agencies. A field investigation of the well conducted by Mojave Water Agency (MWA) staff concluded that the well, drilled to about 400 feet below ground surface (ft bgs), was dry at 217 ft bgs and likely blocked with debris. MWA observed that the well casing is unsecured and concluded that the well is not useful for MWA's Groundwater Monitoring Program (Figure 13.1).



Figure 13.5 - Former San Bernardino County Services Area (CSA) 56 monitoring well. There is no secured cover. The steel casing is not secured and locked and the steel box cover is not secured to.

Additionally, while MWA located the original May 1982 Water Well Drillers Report showing the well construction information, they also determined that the well is located on private property. Mr. Zuber indicated that no well easement could be established (Figure 13.2).



Figure 13.2 - Location of former CSA 56 monitoring well located on property owned by the Wrightwood Development Company. The well is located east of Wrightwood near the intersection of Sheep Creek Wash, flowing south to north, and Swartout Creek, flowing west to east.

Attention shifted to securing the well and considering it for possible destruction as required in California Well Standards. During a February 7, 2020 meeting between Water Board staff, District subcommittee members and their counsel, staff of the San Bernardino County Local Agency Formation Committee (LAFCO), and San Bernardino County Department of Environmental Health Services (County) staff, the County agreed to weld a steel cover over the casing and place the well on its registry of abandoned wells for possible well destruction, as the well owner has not yet been determined. Because the well is ideally situated to provide groundwater monitoring data, Water Board staff recommended the well condition be further assessed to determine if it can be rehabilitated and locate a party that would be responsible for continuing data collection.

The last monitoring report with data from this well was submitted to the Water Board in July 2012 before Board Order 6-76-38 was rescinded. The Water Board concluded in 2013 that the requirements issued to the County were inappropriate because the County is not a Discharger, as all domestic waste disposal in the community is by private onsite wastewater treatment systems.

The 2012 monitoring data from this well indicated that nitrate concentrations were 7.2 milligrams per liter (mg/L), or over two thirds of the drinking water maximum contaminant level of 10 mg/L for nitrate (as nitrogen). The total dissolved solids concentrations were 690 mg/L and total organic carbon was 3.2 mg/L. These data indicated upgradient septic discharges were impacting the receiving groundwater quality.

Because the Sheet Creek Water Company well field is located about three quarters of a mile downgradient (north) of the former CSA well, Water Board staff believes that it would be useful to continue data collection from this location. LAFCO indicates that groundwater monitoring is a function of the District, but the District has no operating funds to pay monitoring costs. Water Board staff recommended the District apply for grant funding under the Mojave Integrated Regional Water Management group's grant planning efforts.

Water Board staff continues to work with the District and other stakeholders to explore options for continued groundwater monitoring downgradient of the unsewered Wrightwood community in order to better protect water quality.

14. Inyo-Mono Integrated Regional Water Management Group Update – *Jeff Fitzsimmons*

The Inyo-Mono Integrated Regional Water Management (IRWM) group held its quarterly scheduled stakeholder meeting on January 22, 2020, at the Bishop Field Office of the United States Bureau of Land Management. Attendees of the meeting included members of the public, representatives of California Native American tribes, private organizations, local municipal governments, service districts, and state agencies. These meetings provide an opportunity for stakeholders to voice their concerns, have discussions, collaborate thoughts, coordinate their efforts with management for regional water issues, and consider social and economic concerns of the area.

Project updates were provided for grant-funded projects. The Big Pine Paiute Tribe Fire Replacement Project received funding, which allowed for 48 obsolete fire hydrants within their community's fire suppression system to be replaced. The June Lake Public Utility District received funding to complete their Uranium Removal Project, which allows for reduction of elevated uranium concentrations from surface waters during drought years. Phase I of Inyo County's Recycled Water Feasibility Study has been completed and Phase II is currently being implemented. Final reports are being prepared by Central Sierra Resource Conservancy and Development, Inc. and, the Desert Mountain Resource Conservation and Development Council for their projects. Upon completion, the reports will be submitted to the Department of Water Resources to verify completion of the respective projects.

The Inyo-Mono IRWM group comments regarding the Draft 2020 Water Resilience Portfolio (Water Resilience Portfolio) were discussed. Additionally, attendees were encouraged to review the Water Resilience Portfolio and provide comment through their respective agencies or collectively. The Inyo-Mono IRWM group promotes water management awareness between communities throughout the region, encourages development of projects, facilitates the implementation of projects towards protecting water quality, and continues to build upon their continued successes.

The next Inyo-Mono IRWM group meeting will occur during April or May of this year.

15. Outreach to Big Pine Area Wastewater Treatment Operators for GeoTracker Data Upload – *Jehiel Cass*

On October 9, 2019, the Executive Officer required all Waste Discharge Requirement Program facilities to begin uploading information to the State Water Resources Control Board's (State Water Board's) GeoTracker database by December 2, 2019. To assist Big Pine area wastewater dischargers' compliance with this requirement, albeit late, Water Board staff met with Big Pine area wastewater treatment operators on January 28, 2020. The meeting purpose was to provide "hands-on" training showing the operators how to claim their sites in the State Water Board's GeoTracker database and establish their respective Field Sampling Points where data are collected for their facilities.

The first step to begin uploading data into GeoTracker is for operators to create account usernames and passwords, then claim their site, and establish Field Sampling Points in the system. After this is completed, dischargers may have their California-accredited laboratories begin uploading wastewater treatment plant effluent data and groundwater monitoring well sampling data electronically to GeoTracker. Preliminary steps also include uploading site maps, monitoring well bore hole logs, and construction completion diagrams. In some cases where wells were installed some time ago, registered well surveyors may be required to establish the latitude and longitude coordinates for sampling points. GeoTracker also requires that facility monitoring reports be uploaded as Portable Document Format (pdf) files. GeoTracker can also display electronic laboratory data for a well in graphical format to evaluate trends over time for selected constituents.

Staff provided handouts of GeoTracker guidance materials and illustrated with a “live-link” on the Internet to demonstrate how to complete the GeoTracker set-up process.



Figure 15.1 - January 28, 2020 meeting of Big Pine area wastewater treatment plant operators are from left-to-right around the table: Jehiel Cass, Water Board; David Tanksley, Big Pine Community Services District; Arne Peterson, Rolling Green Utilities; Mark Lemus, Water Board; Paul Huette, Big Pine Paiute Tribal Authority; and Sergio Alonso, Water Board. Not pictured is Alicia Borchmann, Water Board.

16. Standing Item – Quarterly Violations Report – 3rd Quarter 2019 – Scott Ferguson

The Quarterly Violations Report for July 1, 2019 to September 30, 2019 includes (1) a summary of violations that occurred during the reporting period, and (2) the enforcement action status table.

Synopsis of 3rd Quarter 2019 Violations

Ninety-one (91) violations were recorded for the third quarter 2019 reporting period (Attachment A), much less than the 141 violations recorded for the same quarter a year ago. The violations were distributed across a wide variety of facilities throughout El Dorado, Inyo, Kern, Lassen, Los Angeles, Mono, Nevada, and San Bernardino Counties. The most common violations reported were water quality effluent violations (30), monitoring and reporting violations (28), receiving water groundwater violations (12), cannabis violations (9), and stormwater construction violations (8).

The number of violations for the third quarter were also down from the 138 violations recorded for the previous quarter. Violations during the second quarter were dominated by

twenty (20) water quality effluent violations largely associated with Hot Creek Fish Hatchery and receiving water groundwater violations largely associated with landfills and mines.

One set of violations that stands out for the third quarter are the twenty-eight violations associated with the Water Board's monitoring and reporting programs. This set of violations encompasses deficient monitoring (three violations), deficient reporting (eight violations), and late reporting (seventeen violations). These violations are associated with twenty-two facilities, seventeen of which are small to moderate size wastewater treatment facilities. These facilities all have discharges to land that could adversely affect groundwater quality. Water Board staff will be increasing its efforts to address these types of violations, which for the third quarter accounted for almost thirty-one percent of the total violations. It is important to address these violations given that complete and accurate self-monitoring reports are staff's primary compliance assessment tool.

Recent Quarterly Violation Reports have highlighted violations identified through the Water Board's Cannabis Program. Staff has been focusing its inspection activity on regulated cannabis sites up until the third quarter. During the third quarter, staff in coordination with local law enforcement, turned its attention to unregulated cannabis cultivation sites. The result was identification of six unpermitted cannabis cultivation sites, all located in areas where commercial cannabis cultivation is prohibited. All the sites received Notices of Violation, one of which has been complied with. Staff has also initiated additional enforcement to address the sites with more egregious environment impacts.

Attachments:

Attachment B – 3rd Quarter 2019 Violations Table

Attachment C – Pending Enforcement Cases

Attachment D – Unauthorized Discharge Report