

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

**MEETING OF MARCH 13-14, 2019
SOUTH LAKE TAHOE**

ITEM 5
EXECUTIVE OFFICER'S REPORT

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ENCLOSURE 1

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

**EXECUTIVE OFFICER'S REPORT
FEBRUARY 2019 STANDING ITEMS**

The Water Board has requested regular reports on a number of programs and projects. The following table lists these standing reports, the reporting frequency and the dates the items are due.

ISSUE	FREQUENCY	DUE DATE
Cannabis Update	Annual	September
Climate Change Adaptation Strategy Update	Annual	May
County Sanitation Districts of Los Angeles – District No. 20, Palmdale	Annual	September
Grazing Update	Annual	July
Onsite Septic Systems	Annual	March
Salt & Nutrient Management Plans	Annual	May
Status of Triennial Review Projects	Annual	August
Status of Dairies	Annual	February - Article # 8
Status of Grants	Annual	May
Tahoe Municipal Permit (<u>including Caltrans</u>)	Annual	July
City of Barstow Nitrate/Orphan Perchlorate	Semi-Annual	March September
Lake Tahoe Nearshore	Annual	December
Leviathan Mine	Semi-Annual	January July
Harmful Algal Blooms	Semi-annual	May November
Pacific Gas & Electric Company	Semi-Annual	June December
Quarterly Violations Report	Quarterly	January (3 rd quarter) April (4 th quarter) July (1 st quarter) October (2 nd quarter)

*Water Board staff presentation

ENCLOSURE 2



EXECUTIVE OFFICER’S REPORT • February 2019

Covers December 16, 2018 – January 15, 2019

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State and Regional

1. Personnel Report – *Eric Shay*

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, 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.

Departures - None

Volunteer Work

- Jeff Fitzsimmons, Engineering Geologist, has volunteered to participate for two months on the Debris Task Force – North for the Camp Fire emergency response.

Mr. Fitzsimmons is scheduled to deploy February 9 through March 11, 2019, and April 5 through May 5, 2019.

- Katrina Fleshman, Executive Assistant, has volunteered to provide notary services on an intermittent basis in Chico for the Camp Fire emergency response.

North Lahontan Region

2. Two New Special Studies Included in Regional SWAMP Program in 2019

– Mary Fiore-Wagner

Occasionally, our regional Surface Water Ambient Monitoring Program (SWAMP) includes special studies to evaluate unique issues and/or to assist other programs with their monitoring needs. Two focused monitoring efforts are planned for 2019.

Eagle Lake Water Quality Trend Monitoring. In collaboration with a local community group, the Eagle Lake Guardians, Water Board staff will conduct the Eagle Lake Water Quality Trend Monitoring Project. State Board Clean Water Team lead staff, Erick Burres, and Water Board staff will kick-off the monitoring the end of January with field training for representatives from the Eagle Lake Guardians who will be responsible for taking meter readings, recording field observations, and collecting water samples. The project will include testing for nutrients, bacteria, and pigments chlorophyll-a and phycocyanin (specific to cyanobacteria) at four discreet in-lake sampling locations to capture water quality conditions in the north, middle, and south basins of the lake. The four locations will be co-located near sites monitored previously by the Department of Water Resources at various frequencies and periods of record spanning between 1962 – 2017. Analyses will be supported by our region's SWAMP allocation and be conducted at the Lahontan Water Board's in-house and contract laboratories. Water Board staff will assist with bacteria analysis, preparation of filters for pigment and bacterial source tracking, shipping and handling of samples, and data upload to the [California Environmental Data Exchange Network](#) (CEDEN) in compliance with SWAMP business rules and controlled vocabulary.

Data gathered will be used to evaluate current water quality conditions in Eagle Lake, which is on the Clean Water Act's 303 (d) list as impaired for Total Nitrogen and Total Phosphorus. Since its listing as an impaired water body, some management measures (septic system hookups and meadow restoration) have been implemented within the Eagle Lake watershed; however, a comprehensive assessment of water quality conditions to determine the effectiveness of those management measures has not been conducted. The Non-Point Source Unit may also use the findings from the water quality sampling to inform the need for improved grazing management practices on public and private land along the Eagle Lake shoreline.

Laminar Flow Aeration – Effectiveness Monitoring of Non-Chemical Management of Cyanobacteria. Once weather permits safe access to the lake bottom, the Tahoe Keys Property Owners Association (TKPOA) will be installing a non-chemical control measure to test its efficacy in limiting aquatic weed growth. The technology, referred to as laminar flow aeration, involves delivery of atmospheric air to microporous ceramic disks that will be placed in the bed of a lagoon within the Tahoe Keys waterways. Air circulates through the system creating bubbles that diffuse from the bed of the water body, through the water column to the surface (i.e., laminar flow inversion). This action mixes the water, breaking up any stratification present, which helps aerate the water column from bed to surface, increasing dissolved oxygen and movement of cooler water toward the surface. Additionally, the process helps reduce and lock up nutrients that are biologically available

for plant growth, as explained in an October 2018 Executive Officer's Report prepared by Russell Norman:

"The increase in dissolved oxygen in the bed sediments is believed to result transformation of ammonia in organic sediments to nitrite and then nitrate. Nitrate is not a preferred source of nitrogen for macrophytes (e.g., aquatic invasive plants) so, it is theorized that reducing ammonia in a water body with organic bed sediments will limit the growth of aquatic invasive plants. Once all sediment organic matter is oxidized, the remaining bed material will be mineral in nature. Mineral based bed material does not provide the nutrients to support macrophyte growth that organic bed sediments provide."

Aside from the promise this technology holds in limiting aquatic plant growth, this same treatment method may help control harmful algal blooms (cyanobacteria) that have recently impacted portions of the Tahoe Keys waterways. Since 2017, water quality monitoring in the Tahoe Keys waterways, including sampling within the proposed test site location, has confirmed the presence of cyanobacteria capable of producing toxins. As such, TKPOA has posted health advisories to warn the community about the potential risks to human and animal health when contacting the affected water.

To evaluate the effectiveness of this non-chemical control option, TKPOA's water quality department will collect and analyze water quality samples from up to five locations within the influence of the treatment system and one control site. To complement the water quality monitoring, TKPOA will measure changes in nutrient levels in bottom sediments and survey aquatic plant composition, cover, and density within the test location. Coupled with the results of the water quality testing, the additional data will be considered to determine the usefulness of laminar flow aeration in reducing nutrients in the water and sediments and as a viable non-chemical alternative to control aquatic invasive species and harmful algal blooms.

3. Cannabis Inspection Program Development - Kathleen Bindl

On December 11th, 2018, all Eastern California Regional Cannabis Unit staff participated in an outdoor cultivation site inspection training at Tilth Farms located in Coleville (cannabis



Tilth Farms Water Board Site Inspection, Coleville.

was not being grown at this time). This was an excellent training opportunity where data collection gear and an electronic inspection form was tested on site. Alex Spencer (Water Resource Control Engineer in the Eastern California Regional Cannabis Unit) digitized the inspection form developed by the State Water Board's Office of Enforcement. This will standardize and streamline data collection efforts during site inspections. The digital form allows inspectors to collect precise GPS points and site information on individual computer tablets including cultivation

area perimeter; water storage and use; watercourse crossings; roads and drainages; soil and waste disposal management; riparian and wetland protections; land development and erosion control; fertilizer and pesticide storage practices; and photographs.

After collecting the raw field data, staff return to the office and download the information. This increases efficiency because field data is electronically loaded into the inspection database, which avoids the step of manually transcribing the field data into the database. Water Board staff are working on options to auto-generate an inspection report to further streamline the process.

This tool will greatly increase staff efficiency and high-quality data collection. Once the process is refined, the streamlined inspection report process will be rolled out to other Water Board cannabis units throughout the State.

4. Woodfords Sodium Hypochlorite Solution Spill – Update of Spill Response and Cleanup Activities – Abby Cazier

This article is an update of an earlier July 2018 Executive Officer's Report. On May 9, 2018, a tractor-trailer hauling approximately 4,900 gallons of 12.5 percent sodium hypochlorite (chlorine bleach) solution traveling east bound on State Route 88 near the town of Woodfords lost control and crashed on the north side of the



Overturned sodium hypochlorite solution tanker trailer on State Route 88, embankment, May 9, 2018.

highway. The tractor-trailer came to rest on the embankment on the north side of the highway. The tanker trailer ruptured on impact, causing the entire volume of sodium hypochlorite solution to be released to the surrounding soils and a drainage channel conveying the flow of an unnamed tributary of the West Fork Carson River. A small area of soil was also affected by diesel fuel and motor oil, where the tractor-portion of the tractor-trailer came to rest.

The initial site assessment determined that the chlorine bleach solution did not directly impact the West Fork Carson River, likely due to the high spring flows at the time of the spill. However, the spill did impact the soil on the embankment and required removal action. The first phase of removal action was conducted during the week of May 29, 2018, by excavating the top three inches of affected soils and chemically burned vegetation from the spill area and drainage channel.

Soil confirmation results from the first phase of removal action indicated the spill site had not been cleaned up to background conditions.

Elevated chloroform concentrations were detected in the confirmation soil samples collected after the May 2018 removal action that exceeded the Leaching to Groundwater Environmental Screening Level (ESL) of 0.068 milligrams per kilogram (mg/kg). The chloroform is considered to be a bi-product from the sodium hypochlorite spill and was used as the indicator contaminant to establish if the spill was adequately cleaned up. The chloroform is thought to have been generated when the chlorine molecules in the sodium hypochlorite solution interacted with the naturally



Second phase of soil excavation, September 26, 2018.

occurring organic material in the soil. Chloroform was not detected in background soil samples; the maximum concentration of chloroform detected in the spill area soil was 11 mg/kg where the tanker trailer came to rest. A subsequent soil investigation revealed the spill had affected the soil to a maximum depth of eight feet.

The Responsible Party contractors began the second phase of remedial action by removing impacted soils on September 24, 2018, using a backhoe and excavator.

Approximately 443 cubic yards of soil were removed from the embankment and disposed of at Lockwood Landfill in Reno, Nevada, and soil confirmation sampling indicated the site had been cleaned up to background conditions.

Site restoration activities began on October 8, 2018 and included backfilling the excavation area with native fill obtained from the California Department of Transportation and placing jute netting and straw wattles

on the exposed slope. On October 14, 2018, a mixture of paper and wood mulch, tackifier, and native seed mix was applied to the backfilled excavation to provide additional erosion control. The hydroseeded slope will be periodically inspected through the spring of 2019 to evaluate slope stability and to ensure additional erosion control measures are not required.



Erosion control measures installed following excavation (jute netting, straw wattles, and hydroseed), October 18, 2018.

South Lahontan Region

5. Antelope Valley Integrated Regional Water Management Group Meets in Palmdale to Discuss New Requirements, Amendment to 2018 Memorandum of Understanding – Tiffany Steinert

Integrated Regional Water Management (IRWM) began in 2002 when the Regional Water Management Planning Act (SB 1672) was passed by the Legislature. Since then, various bond acts approved by California voters have provided over \$1.5 billion in State funding to support and advance integrated, multi-benefit regional projects. Cities, counties, water districts, community/environmental groups and others across the State have worked collaboratively to organize and establish 48 regional water management groups, covering over 87 percent of the State's area and 99 percent of its population.

The California Department of Water Resources added new requirements in October 2018 to its IRWM Grant Program Guidelines document for administering Proposition 1 (Water Bond 2014) grants. Because of the new grant requirements, the Antelope Valley IRWM group held a meeting in Palmdale on December 19, 2018, to discuss how to comply with the new requirements. These requirements include updating region objectives to include determining the impacts from climate change, preparing a Storm Water Resources Plan, and preparing a Sediment Management Plan. Eight sections in a Memorandum of Understanding (MOU) were amended to address the new requirements. The MOU is in the process of being accepted by each of the member stakeholder agencies.

The Antelope Valley IRWM group also discussed the current Projects on the list for Proposition 1 funding. Brian Dietrick of Woodard & Curran explained the items that would make each Project on the list more competitive, such as having California Environmental Quality Act documents complete and having all permits in place in addition to Projects that

provide multiple benefits. Mr. Dietrick stated that reviewing agencies hope to see more Projects with longer life expectancies this round of funding, preferably 15 years or more.

The meeting concluded with public comments. Gene Nebeker, Advisory Team member for the Antelope Valley IRWM Group, voiced his concern that the adjudication values provided by the United States Army Corps of Engineers were flawed, and the group should provide money to the Water Master to challenge the findings. Ronald Smith, General Manager of Rosamond Community Services District, countered and said no money should be spent as no legal means exist to challenge the Native Safe Yield set by the court in the adjudication until the ramp down period is up (circa 2032). The next Antelope Valley IRWM meeting will be held on January 23, 2019.

6. Retired Executive Director of Mojave Water Agency Presented at the Groundwater Resources Association of California, Inland Empire Chapter – Tom Browne

On October 13, 2018, at the Inland Empire Chapter meeting of the Groundwater Resources Association of California, Kirby Brill, retired Executive Director of the Mojave Water Agency (MWA), shared his wisdom on the future of the Sustainable Groundwater Management Act (SGMA). SGMA refers to a series of State legislation signed into law in September 2014 (AB 1739, SB 1168, and SB 1319) and its implementation throughout the state. The talk was held in Riverside at a local restaurant. Most members of the audience were consultants who work for stakeholders in the process of developing a sustainable Groundwater Management Plan.

Mr. Brill's message was full of optimism for what likely may be a potentially long process in getting water users to agree on allocation rights and costs. Some members of the audience said there was a lot of disagreement between stakeholders in the adjudicated Mojave River basin. Though Mr. Brill's talk did not mention any details about those difficulties, he was optimistic that if stakeholders listen to one another, compromise can be reached. He frequently quoted Peter F. Drucker, management consultant and educator: "management is doing things right; leadership is doing the right things;" "the most important thing in communication is hearing what isn't said;" and "the best way to predict the future is to create it."

Groundwater Sustainability Agencies (authorities) are forming to manage groundwater basins sustainably and begin the process of writing and adopting Groundwater Sustainability Plans for high and medium priority basins throughout the South Lahontan region. The Indian Wells Valley Groundwater Authority is an example of one such authority. This authority is funded by a fee applied to every acre-foot of water extracted from the Indian Wells Valley groundwater basin, where the primary users are, in order of volume: alfalfa and pistachio farmers; the US Navy; Searles Valley Minerals; the Indian Wells Valley Water Agency (the only private water purveyor in the Valley); and a variety of small private well owners.



Kirby Brill, retired Executive Director of the Mojave Water Agency, addresses a meeting of the Groundwater Resources Association of California, Inland Empire Chapter, on October 13, 2018.

The fee is used to help fund the development and implementation of the Indian Wells Valley Groundwater Sustainability Plan, which has an estimated cost of \$3.1 million.

7. Closed, Abandoned, or Inactive Landfills and Burn Dump Disposal Sites – Their Distribution and Potential Threat to Water Quality and Our Proposed Solution to Protect Water Quality - Jan Zimmerman and Jeffrey Fitzsimmons

Closed, abandoned, or inactive (CAI) landfill sites are areas where disposal of nonhazardous solid waste¹ had occurred historically, but are sites that were either closed, abandoned, or otherwise became inactive prior to November 27, 1984. Some CAI sites were operated by open burning of refuse (“burn dumps”), and some are co-located with waste disposal sites that were active after November 27, 1984. The Department of Resources, Recycling, and Recovery (CalRecycle) tracks CAI sites through their Solid Waste Information System (SWIS) and adds new sites to the database as locations are verified. There are over 2,500 CAI landfills or burn sites statewide. The number of known CAI sites in the Lahontan region is around 40 (Map 1), though it is likely that there are many more yet to be discovered.

All landfills active or closed after November 27, 1984, are regulated by the Water Board under waste discharge requirements (WDRs) pursuant to the California Code of Regulations, title 27; we currently regulate 51 landfill sites in the Lahontan region. CAI sites are not required to be closed in accordance with title 27 regulations; however, if it is determined that a CAI site poses a threat to water quality, the Water Board may impose requirements, as necessary, to accommodate regional or site-specific conditions to protect water quality. Based on the information contained in our files, it does not appear that we have directly regulated any CAI site, though we are aware that several are or have been under the regulatory oversight of a local enforcement agency.

CAI sites are existing reservoirs of solid wastes and may also include other waste constituents derived from burning of refuse, including hazardous waste. CAI sites have the potential to impact water quality through landfill gas migration, leachate migration, and exposure of waste to storm water. The primary constituents of concern are derived from decomposable wastes and include volatile organic compounds, total dissolved solids, chloride, sulfate, nitrate, turbidity, and pH. Other constituents of potential concern include metals, polycyclic aromatic hydrocarbons derived from burning of refuse, and per- and poly-fluoroalkyl substances known to be in many common household items.

Recently, CalRecycle staff reached out to Water Board staff regarding several CAI sites in the region: Big Pine Dump Site and Brockman Lane Dump Site both located in Inyo County and on land owned by Los Angeles Department of Water and Power (LADWP); Paradise Camp Dump in Mono County on land owned by LADWP; and Ridgecrest #1 Dump Site in Kern County located on land owned by Bureau of Land Management. All four of these sites were historically leased by the respective counties for waste disposal. CalRecycle is considering providing funding and remediation oversight to the land owners of each of these sites for the design and implementation of a closure plan through their Solid Waste Disposal and Codisposal Site Cleanup Program. CalRecycle would like to collaborate with the Water Board so that water quality is protected at these sites.

The Santa Ana and San Diego Regional Water Boards have adopted General Waste Discharge Requirements (General WDR) specifically for the maintenance of and water quality monitoring at CAI sites. A General WDR could eliminate staff time preparing an individual WDR for each CAI site and would significantly simplify and streamline the

¹ California Code of Regulations, title 27, section 20220(a) defines nonhazardous solid waste as “all putrescible and nonputrescible solid, semi solid, and liquid wastes, including garbage, trash, refuse, paper, rubbish, ashes, industrial wastes, demolition and construction wastes, abandoned vehicles and parts thereof, discarded home and industrial appliances, manure, vegetable or animal solid and semi solid wastes and other discarded waste (whether of solid or semi solid consistency); provided that such wastes do not contain wastes which must be managed as hazardous wastes, or wastes which contain soluble pollutants in concentrations which exceed applicable water quality objectives, or could cause degradation of waters of the state (i.e., designated waste).”

application process for dischargers. A General WDR could also allow the Water Board to more effectively and consistently regulate historical waste discharges at CAI sites that threaten water quality. Water Board staff are planning to bring a draft General WDR to the Water Board for consideration of adoption at the regularly scheduled Board meeting in June 2019.



Map 1 - Known locations of CAI sites in the Lahontan Region based on information obtained from CalRecycle's SWIS database.

8. Dairy Status Report – *Ghasem Pour-ghasemi*

There are seven dairies and three heifer ranches in operation in the Lahontan Region for a total of ten active confined animal facilities (CAFs). Only three active dairies and one closed dairy are currently regulated under waste discharge requirements. Prior to fiscal year 2018/2019, one Water Board staff was responsible for all CAFs. This year, CAFs oversight is divided among four staff in our Wastewater and Agricultural Unit. This way additional staff will become familiar with the operation of CAFs and can assist with these facilities.

In May 2010, Water Board staff prepared a Dairy Strategy containing the following four elements:

1. Assess risk to downgradient drinking water receptors and require dairies to provide replacement water to residents whose drinking water wells are polluted by dairy operations;
2. Implement source control using appropriate waste control and disposal practices;
3. Evaluate effectiveness of these measures through monitoring; and
4. Conduct groundwater remediation where beneficial uses are adversely affected.

Past studies near dairy CAFs indicate groundwater pollution downgradient of most facilities. The table below shows the most recent groundwater data available from some CAFs.

Water Board staff have accomplished the first step of the Dairy Strategy by requiring replacement water delivery to affected residents. Step two is partially accomplished as Water Board staff have obtaining voluntary compliance at some facilities. Step three will be covered under a waste discharge requirements (General Order) for all CAFs; Water Board staff are currently working on the General Order and accompanied CEQA document. Depending on the specific provision of a to-be-developed CAF General Order, other regulatory tools such as a Cleanup and Abatement Order (CAO) may be needed to compel remediation of polluted groundwater.

The Water Board has issued five CAOs and has one stipulated agreement in place requiring CAFs to provide replacement water to affected residents (see table below). Approximately 30 residents currently receive replacement drinking water from five existing and closed dairies and a closed heifer ranch that have polluted downgradient residential supply wells. The CAOs require dairy owners to sample residential wells around the dairies every nine months. Replacement drinking water must be provided to any resident within the affected area having nitrate and total dissolved solids concentrations close to and/or over the primary and secondary drinking water standards.

Summary of Region 6 Confined Animal Facilities

Facility	WDR	Groundwater Pollution	Enforcement Status and Most Recent Nitrate (as N) and Total Dissolved Solids (TDS) Groundwater Concentrations (data below is current as of January 2019)
Active Dairies			
Harmsen Dairy	No	Yes	<ul style="list-style-type: none"> • CAO requires residential wells sampling every nine months and providing replacement drinking water to any residents with nitrate and TDS concentrations close to and/or over the drinking water standards. • Highest residential well nitrate concentration is 18 mg/L, and TDS concentration is 820 mg/L. • Facility recently closed its unlined wash water pond and applies effluent to irrigated crop land.
A & H Dairy	Yes	Yes	<ul style="list-style-type: none"> • No residential well sample data. • Highest compliance monitoring well nitrate concentration is 117 mg/L and TDS concentration is 2,720 mg/L. • Facility applies effluent to irrigated crop land.

Facility	WDR	Groundwater Pollution	Enforcement Status and Most Recent Nitrate (as N) and Total Dissolved Solids (TDS) Groundwater Concentrations (data below is current as of January 2019)
Dutch Dairy	Yes	Yes	<ul style="list-style-type: none"> Stipulated agreement requires providing bottled water to downgradient residents with nitrate and TDS concentrations close to and/or over drinking water standards. Highest residential well nitrate concentration is 23 mg/L and TDS concentration is 1,800 mg/L. Highest compliance monitoring well nitrate concentration is 130 mg/L and TDS concentration is 2,800 mg/L.
B & E Dairy	Yes	Yes	<ul style="list-style-type: none"> No residential well sample data. Highest compliance monitoring well nitrate concentration is 6.0 mg/L and TDS concentration is 430 mg/L. Highest supply well nitrate concentration is 6.7 mg/L and TDS concentration is 660 mg/L.
John Van Leeuwen Dairy	No	Unknown	<ul style="list-style-type: none"> No residential well sample data. The dairy has unlined wash water disposal ponds.
Hinkley Dairy	No	Yes	<ul style="list-style-type: none"> CAO requires sampling of residential wells every nine months and providing replacement drinking water to any residents with nitrate and TDS concentrations close to and/or over the drinking water standards. Highest residential well nitrate concentration is 31.8 mg/L and TDS concentration is 678 mg/L. Facility applies effluent to irrigated crop land.
High Desert Dairy	No	No	<ul style="list-style-type: none"> No residential well sample data. Facility applies effluent to irrigated crop land.
Active Heifer Ranches			
DVD Heifer Ranch	No	Yes	<ul style="list-style-type: none"> CAO requires sampling of residential wells every nine months and providing replacement drinking water to any residents with nitrate and total dissolved solids concentrations close to and/or over the drinking water standards. Highest residential well nitrate concentration is 48.2 mg/L and TDS concentration is 5,300 mg/L. No wash water generated.

Facility	WDR	Groundwater Pollution	Enforcement Status and Most Recent Nitrate (as N) and Total Dissolved Solids (TDS) Groundwater Concentrations (data below is current as of January 2019)
Green Valley Farms	No	Yes	<ul style="list-style-type: none"> No residential well sample data. No wash water generated.
Alamo Mocho Ranch	No	Unknown	<ul style="list-style-type: none"> No residential well sample data. No wash water generated.
Closed Facilities			
N & M Dairy	Yes	Yes	<ul style="list-style-type: none"> A CAO requires sampling of residential wells every nine months and providing replacement drinking water to any residents with nitrate and TDS concentrations close to and/or over the drinking water standards. Highest residential well nitrate concentration is 15.3 mg/L and TDS concentration is 1,230 mg/L. Furthest residential well (5 miles downgradient) nitrate concentration is 10.5 mg/L and TDS concentration is 989 mg/L. Highest compliance monitoring well nitrate concentration is 11.2 mg/L and TDS concentration is 4,580 mg/L. Dairy ceased operations as of July 2013. CAO issued for cleanup. ACL issued for failure to comply.
Meadow Brook Dairy	No	No	<ul style="list-style-type: none"> Dairy closed and permit rescinded in June 2013.
DVD Heifer Ranch (former)	No	Yes	<ul style="list-style-type: none"> CAO requires sampling of residential wells every nine months and providing replacement drinking water to any residents with nitrate and total dissolved solids concentrations close to and/or over the drinking water standards. Highest residential well nitrate concentration is 40 mg/L, and TDS concentration is 1,200 mg/L. Moved into former Desert View Dairy location. Corrals and structures removed.

ENCLOSURE 3

EXECUTIVE OFFICER ACTION ITEMS

FEBRUARY 2019 EO REPORT - DECEMBER 16, 2018 to JANUARY 15, 2019

Lahontan Regional Water Quality Control Board

DOCUMENT	DATE SIGNED
NO FURTHER ACTION REQUIRED *	
No Further Action Required For Pikes Mobil, 71927 Baker Boulevard (Currently 71937 Baker Boulevard), Baker, San Bernardino County, UST Case #6B3600954T, UST Cleanup Claim #13673, Geotracker Global ID# T0607100949	12/21/2018
No Further Action Required for Four Corners Unocal, 2851 State Highway 58 (currently 6158 E State Highway 58), Kramer Junction, San Bernardino County, UST Case #6B3600205T, UST Cleanup Claim #1267, GeoTracker Global ID# T0607100716	12/27/2018
401 WATER QUALITY CERTIFICATION	
Board Order No. R6T-2018-0057, Clean Water Act Section 401 Water Quality Certification For Maring Revetment Project, Placer County	12/20/2018
Board Order No. R6V-2018-0059, Granting Clean Water Act Section 401 Water Quality Certification, Bishop Creek Bypass Replacement For Four Culverts Project, Inyo County	12/20/2018
Board Order R6V-2018-0060, Granting Clean Water Act Section 401 Water Quality Certification, Owens Valley Excavation And In-Kind Replacement Project, Los Angeles Department Of Water And Power, Inyo County, WDID No. 6B141610010	12/20/2018
Board Order No. R6V-2018-0061, Granting Clean Water Act Section 401 Water Quality Certification, Bonnie Clare Road Reconstruction Project, Inyo County	12/21/2018
Board Order No. R6T-2018-0062, Clean Water Act Section 401 Water Quality Certification for Palffy Pier Extension Project, El Dorado County	12/31/2018
WASTE DISCHARGE REQUIREMENTS	
Notice of Applicability - Conditional Waiver of Waste Discharge Requirements, Water Quality Order No. WQ-2017-0023-DWQ, J&S Southern Leasing Group Inc., San Bernardino County - APN 0459-851-07, WDID No. 6V36CC406383	12/20/2018
Notice of Applicability - Conditional Waiver of Waste Discharge Requirements, Water Quality Order No. WQ-2017-0023-DWQ, My Health Medical Systems, Inc., San Bernardino County - APN 3128-101-13, WDID No. 6V36CC407040	12/20/2018
Notice of Applicability - Conditional Waiver of Waste Discharge Requirements, Water Quality Order No. WQ-2017-0023-DWQ, Gama Lancaster, LLC, Los Angeles County - APN 3132-016-035, WDID No. 6V19CC406933	12/20/2018
Notice of Applicability - Conditional Waiver Of Waste Discharge Requirements, Water Quality Order No. WQ-2017-0023-DWQ, High Desert Cultivation Center II, LLC, Los Angeles County - APN 3126-017-038, WDID No. 6V19CC407036	12/20/2018
Notice of Applicability - Waste Discharge Requirements, Water Quality Order No. WQ-2017-0023-Dwq, Colitas Farms LLC, Mono County - APN 002460015000, WDID No. 6T26CC405729	12/20/2018
Notice of Applicability - Conditional Waiver of Waste Discharge Requirements, Water Quality Order No. WQ-2017-0023-DWQ, Firehouse Health Care Industries, Inc., San Bernardino County - APN 3129-261-22, WDID No. 6V36CC405636	12/20/2018
Notice of Applicability - Conditional Waiver of Waste Discharge Requirements, Water Quality Order No. WQ-2017-0023-DWQ, Atlantic Goldwin Corp, Los Angeles County - APN 3137-009-050, WDID No. 6V19CC406825	12/20/2018

	Notice of Applicability - Conditional Waiver of Waste Discharge Requirements, Water Quality Order No. WQ-2017-0023-DWQ, Global Nature Commodity Corp, Los Angeles County - APN 3105-001-042, WDID No. 6V19CC406806	12/20/2018
	Notice Of Applicability - Waste Discharge Requirements, Water Quality Order No. WW-2017-0023-DWQ, Apogee Farms, Mono County - APN 025-020-013, WDID No. 6V26CC407410	12/20/2018
	Notice of Applicability - Conditional Waiver of Waste Discharge Requirements, Water Quality Order No. WQ-2017-0023-DWQ, Valleyline, Los Angeles County - APN 3126-019-034, WDID No. 6V19CC407285	12/21/2018
	Notice Of Applicability - Conditional Waiver of Waste Discharge Requirements, Water Quality Order No. WQ-2017-0023-DWQ, Green Spectrum Trading, Inc., San Bernardino County - APN 9129-261-52-0000, WDID No. 6V36CC406812	12/27/2018
	Notice Of Applicability – Conditional Waiver of Waste Discharge Requirements, Water Quality Order No. WQ-2017-0023-DWQ, Genex Trading, Inc., San Bernardino County — APN 045968117	12/28/2018
	Notice of Applicability – Conditional Waiver Of Waste Discharge Requirements, Water Quality Order No. WQ-2017-0023-DWQ, Walker River Farms, Mono County — APN 002-110-021-000	1/4/2019
EXEMPTIONS		
	Exemption to Waste Discharge Prohibition for Discharge of Waste to Land Below the Highwater Rim of Lake Tahoe for the Mettler Shoreline Stabilization Project, Placer County	1/11/2019
	Exemption To Waste Discharge Prohibitions For Discharge Of Waste To Surface Waters Of The West Walker Hydrologic Unit And Violation Of Numeric Water Quality Objective For The Aspen Fales Shoulders Project, Mono County	1/14/2019
MISCELLANEOUS DOCUMENTS		
	SOW – Regents of University of CA Davis (U.C. Davis)	12/20/2018

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

Additional links:

General Policy information: http://www.swrcb.ca.gov/ust/lt_cls_plcy.shtml#policy081712

Copy of Policy: http://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2012/rs2012_0016atta.pdf

Implementation Plan:

http://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2012/110612_6_final_ltcp%20imp%20plan.pdf

ENCLOSURE 4

UNAUTHORIZED DISCHARGE REPORT

12/16/2018 TO 01/15/2019

Discharger/ Facility	Location	Basin	Regulated Facility?	Discharge Date	Discharge Volume	Description of Failure	Additional Details	Status
COUNTY: KERN								
Ridgecrest City	Vulcan Avenue and Downs Street, Ridgecrest	S	Yes	12/30/2018	325 Gallons	Grease deposition (fat, oil, and grease - FOG) caused 325 gallons of sewage to spill from the manhole at Vulcan Avenue and Downs Street, to the street/curb and gutter.	No surface water was affected.	Discharger did not propose or identify corrective actions. Water Board staff are working with the discharger to determine cleanup actions.
COUNTY: MONO								
Mammoth Water District	Manhole at 58 Sierra Park Road, Mammoth Lakes	S	Yes	1/2/2019	3,000 Gallons	Debris from Construction caused 3,000 gallons of sewage to spill from the Manhole at 58 Sierra Park Road to a paved surface and separate storm drain.	No surface water was affected.	Spill was cleaned up and returned to the sanitary sewer system.

* All discharges to surface waters are included in the report.
Discharges to land of less than 100 gallons are not included in the report.

UNAUTHORIZED DISCHARGE REPORT
12/16/2018 TO 01/15/2019

Discharger/ Facility	Location	Basin	Regulated Facility?	Discharge Date	Discharge Volume	Description of Failure	Additional Details	Status
COUNTY: KERN								
Mammoth Water District	232 Rainbow Lane, Mammoth Lakes	S	Yes	12/28/2018	200 Gallons	Debris from construction caused 200 gallons of sewage to spill from lower lateral to a paved surface at 232 Rainbow Lane, Mammoth Lakes.	No surface water was affected.	Discharger did not propose or identify corrective actions. Water Board staff are working with the discharger to determine cleanup actions.

* All discharges to surface waters are included in the report.
Discharges to land of less than 100 gallons are not included in the report.

ENCLOSURE 5

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

**EXECUTIVE OFFICER'S REPORT
MARCH 2019 STANDING ITEMS**

The Water Board has requested regular reports on a number of programs and projects. The following table lists these standing reports, the reporting frequency and the dates the items are due.

ISSUE	FREQUENCY	DUE DATE
Cannabis Update	Annual	September
Climate Change Adaptation Strategy Update	Annual	May
County Sanitation Districts of Los Angeles – District No. 20, Palmdale	Annual	September
Grazing Update	Annual	July
Onsite Septic Systems	Annual	March – Article # 16
Salt & Nutrient Management Plans	Annual	May
Status of Triennial Review Projects	Annual	August
Status of Dairies	Annual	February
Status of Grants	Annual	May
Tahoe Municipal Permit (<u>including Caltrans</u>)	Annual	July
City of Barstow Nitrate/Orphan Perchlorate	Semi-Annual	March – Article # 9 September
Lake Tahoe Nearshore	Annual	December *
Leviathan Mine	Semi-Annual	January July
Harmful Algal Blooms	Semi-annual	May November
Pacific Gas & Electric Company	Semi-Annual	June December
Quarterly Violations Report	Quarterly	January (3 rd quarter) April (4 th quarter) July (1 st quarter) October (2 nd quarter)

*Water Board staff presentation

ENCLOSURE 6



EXECUTIVE OFFICER’S REPORT • March 2019

Covers January 16, 2018 – February 15, 2019

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State and Regional

1. Personnel Report – *Eric Shay*

New Hires – None

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, 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.
- 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.
- 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

- Will Chen, Scientific Aid, Cleanup/Site Investigation & Enforcement Unit, South Lake Tahoe. Mr. Chen has accepted a position in Region 5 as a Water Resource Control Engineer.

North Lahontan Region

2. Tioga Lodge at Mono Lake – Post Office Creek Restoration Update

– Lisa Scorallo

This is an update to the March 2018 Executive Officer's (EO) Report article regarding unpermitted alteration of Post Office Creek and grading of riparian and wetland habitat immediately above Mono Lake on property across Highway 395 from Tioga Lodge at Mono Lake.



Map 1 - 2016 Marina Lake

Following the 2016 Marina Fire at Mono Lake, Dr. Gloria Ma (responsible party), owner of Tioga Lodge at Mono Lake (see location map provided as Map 1), engaged a contractor to clear and stockpile charred wood and other fire-related debris and to divert Post Office Creek into an old,

historically-constructed channel and pond on the Lodge property above Mono Lake. No permits were obtained from the Water Board or any other permitting agency prior to conducting the work that also cleared recovering wetland and riparian habitat and filled portions of Post Office Creek's braided channel system.

On October 21, 2016, Water Board Executive Officer issued a Cleanup and Abatement Order requiring immediate restoration of Post Office Creek to its pre-disturbance condition, and stabilization of the disturbed soils on the site. Mono County and the California Department of Fish and Wildlife also issued Notices of Violation to Dr. Ma for the unpermitted project. The matter was subsequently referred to the California Attorney General's Office for further enforcement on behalf of the Water Board, California Department of Fish and Wildlife, and California Department of Parks and Recreation. Following issuance of a Complaint in Mono County Superior Court, Dr. Ma agreed to conduct restoration activities.

Restoration efforts began in July 2018 under the oversight of Dr. Jim Paulus. Restoration activities completed in 2018 included: (1) re-establishing the Post Office Creek's main stem and distributary channels (widths, depths and alignment); (2) incrementally reintroducing surface water flow into the creeks channels (Figure 1) until flow was fully restored; (3) mulching/chipping and distributing the woody debris piles for promotion of microhabitat variation; (4) hand-pulling non-native vegetation in riparian/lowland areas, and masticating a portion of non-native vegetation (above-ground biomass, predominantly white sweet clover) from around the debris piles in upland areas; (5) reseeding upland and lowland habitats; and (6) conducting annual vegetation monitoring and reporting. By fall 2018, 100 percent of surface



Figure 1 –Post Office Creek in August 2018, showing approximately 40 percent of surface flows returned to the restored channel system.

flow was restored to Post Office Creek and its distributary channel system, and the historically-constructed channel and pond were abandoned by backfilling, recontouring, and covering the area with mulch. Dr. Paulus submitted the *First Annual Monitoring Report* (November 2018) summarizing the completed restoration activities and presenting the results of creek flow restoration and vegetation monitoring. Annual monitoring, maintenance, and adaptive management work are planned to continue through 2022, or longer if needed to achieve final success criteria for the project.

Non-native/invasive vegetation control will be an important restoration component in 2019 and following years. Dr. Paulus submitted a supplemental *Weed Control Plan* (October 2018) that emphasizes manual removal (hoeing and hand-pulling) for non-native species, but also includes herbicide (glyphosate) use for spot treatment in upland areas only. The plan identifies targeted tree and high-risk perennial species including Siberian elm, white sweet clover, and woolly mullein for control or eradication. The limited herbicide use, as proposed, will not require a Basin Plan prohibition exemption, as it does not involve surface water application.

Planned restoration activities for 2019 include planting willow cuttings along the restored creek channels in the spring, hand removal of non-native vegetative species along the creek channels and lowlands before the weeds set seed, herbicide spot treatment of non-native vegetative species in upland areas, and annual vegetation monitoring and reporting in the fall.

3. Tahoe Keys Lagoons Restoration Project – *Russell Norman*

To control aquatic invasive plant (AIP) infestations in the Tahoe Keys Lagoons, the Tahoe Keys Property Owners Association (TKPOA) submitted an individual National Pollutant Discharge Elimination System (NPDES) permit and Lahontan Basin Plan pesticide discharge prohibition exemption application for the Tahoe Keys Lagoons Restoration Project in July 2018. The Tahoe Keys Lagoons Restoration Project is designed to control aquatic invasive weeds using aquatic herbicides/pesticides (herbicides) to reduce AIP populations. The use of herbicides is proposed to be followed by non-chemical treatments and the intermittent use of chemical controls to mitigate AIP populations in the Tahoe Keys Lagoons. TKPOA proposes a twelve-year AIP control project using four aquatic herbicide active ingredients (endothall, triclopyr, penoxsulam and, if registered for California use, florypyrauxifen-benzyl) to control Eurasian Watermilfoil, Curlyleaf Pondweed and Coontail in the Tahoe Keys Lagoons in Lake Tahoe. A proposed one-time herbicide application in Year 1 (18.17-acre application area) is proposed to be followed in Years 1 and 2 by several non-chemical AIP control methods and approaches, such as selective hand-removal and bottom barriers. This treatment plan will be used to evaluate the efficacy of herbicide-use in combination with non-chemical AIP control methods. TKPOA proposes to apply one or more of the aquatic herbicides noted above to the Tahoe Keys Lagoons in Year 3 (72-acre application area) and Year 4 (64-acre application area) and, as needed, in Years 5-12 (up to 35-acres application area per year).

We currently regulate the TKPOA with Waste Discharge Requirements (WDR) which require control of non-point sources of pollution to the lagoons, and control of plant fragments from aquatic weed harvesting operations. Per conditions of the WDR and prior permits issued to TKPOA, only mechanical methods have been allowed for implementation of AIP control. TKPOA has implemented seasonal harvesting and other mechanical controls since the mid-1980s with limited effect controlling AIP infestations. Recent aquatic plant surveys (2014, 2015, 2016, and 2017) show that non-native aquatic plant populations in the Tahoe Keys have been growing rapidly with 85-90% of the available wetted surface in the Tahoe Keys Lagoons infested with AIP. The [2015 Lake Tahoe Aquatic Invasive Species Implementation Plan](#), prepared by the University of Nevada Reno and the Lake Tahoe Aquatic Invasive Species Coordination Committee, listed the Tahoe Keys as one of the highest priority areas for control of AIP in Lake Tahoe. The Tahoe Keys Lagoons are estimated to be the source of more than 25% of all commercial, governmental, and private boating on Lake Tahoe. Additionally, the scale of the Tahoe Keys in comparison to other marinas, Tahoe Keys has 170 acres of waterways, the approximately 30 other enclosed marinas cover up to 30 acres. As a result, the Tahoe Keys Lagoons AIP infestation is likely a significant source of AIP spread to other Lake Tahoe nearshore areas.

TKPOA previously submitted an application for an individual NPDES permit and Lahontan Basin Plan pesticide discharge prohibition exemption for the Tahoe Keys Lagoon Integrated Control Methods Test project in July 2017. The Tahoe Keys West Lagoon Integrated Control Methods Test project was designed to test the efficacy of three herbicides followed by several non-herbicide control methods to explore an integrated-methods approach to bring AIP under control within the test area of the West Lagoon of the Tahoe Keys in Lake Tahoe. An initial study under the California Environmental Quality Act (CEQA) was performed in 2017, and a determination to conduct a full CEQA/Environmental Impact Report (EIR) analysis was made.

An Environmental Impact Statement (EIS), was required by the Tahoe Resource Planning Agency (TRPA), and an EIR, was required under CEQA. The Lahontan Water Board will serve as the lead agency for the CEQA EIR.

A facilitation services company, Zephyr Collaboration, was selected by TKPOA, TRPA, Tahoe Water Suppliers Association and The League to Save Lake Tahoe with recommendations by Lahontan Water Board staff. The collaborative process for environmental review and permitting proposes an aggressive schedule for stakeholder and public collaboration to meet the project goals of having the EIS/EIR environmental analysis completed. The timeline of the aforementioned is still under review and subject to change.

As part of the collaborative process, staff are participating in a Stakeholder Committee (SC) as an informational resource for water quality guidelines, regulations, and monitoring practices. Other SC members include TRPA, TKPOA, Tahoe Water Suppliers Association and League to Save Lake Tahoe staff. Water Board staff will not participate in the development of SC recommendations, but instead will advise on regulatory and environmental analysis requirements.

Water Board staff have provided tribal notification under AB 52 of the Tahoe Keys Lagoons Restoration Project proposal to United Auburn Indian Community and Wilton Rancheria. Additionally, Water Board staff have provided non-AB 52 notification to the Pyramid Lake Paiute Tribe, and Washoe Tribe of Nevada and California. The tribal consultation processes will be conducted by Water Board staff in accordance with the CalEPA Tribal Consultation Policy, and accompanying protocols.

The first public meeting for the Tahoe Keys Lagoons Restoration Project is anticipated to be conducted in 2019, to communicate the purpose/need for the project and solicit public comments on the project. Follow-up public meetings are anticipated later in 2019 to present the results of the EIS/EIR environmental review process, and solicit public comments. Anticipated events in Fall of 2019-Spring of 2020 include additional public meetings, noticing of the environmental analysis, and draft permit documents.

4. Lake Tahoe Visitors Association Hosts Seminar on Major Environmental Issues at Annual Meteorologists' Conference – *Ed Hancock*

On January 30, 2019, the Lake Tahoe Visitors Association (LTVA) hosted national experts on two major environmental issues, global climate change and the intensifying of wildland fire in the Western United States, as part of the Twenty-Third Annual Operation Sierra Storm (OSS). OSS is a leading national weather conference, a cutting-edge meteorological sciences forum, and seminar for network television meteorologists, which is held in South Lake Tahoe.

Dr. Kristie Ebi began the seminar by providing a synthesis of the Fifth Assessment Report from the Intergovernmental Panel on Climate Change (IPCC). The report is the most recent climate change impacts assessment and was specifically charged with assessing the probable differences in global impacts between 1.5°C and 2.0°C of anthropogenically-driven atmospheric warming. Dr. Ebi is an expert in public health from the University of Washington and was one of the lead authors of Chapter 3 of the assessment, which considers the impacts of global warming to natural and human systems. The report details high confidence in anthropogenically-induced climate impacts, and the approximately 100 attendees were told to expect shifts to extreme weather patterns in the coming decades. The report discusses how human actions have caused approximately 1°C of global warming since pre-industrial times, and the IPCC expects global temperatures to break 1.5°C of atmospheric warming sometime between 2030 and 2052, if greenhouse gas emissions continue at current rates.

Dr. Ebi warned the audience to expect a future climate “entirely different to today in just a few decades”, with temperatures at the Earth's poles projected to increase by as much as 9°C from today's daily maximums, if emissions continue at current rates. Past mid-century, the IPCC reports, there will be parts of the world where the lowest temperatures are higher than the highest temperatures of today. Humans should expect shifting precipitation patterns and an increase in severe weather. Some areas of the globe will experience an increase in large,

damaging floods while other areas will experience severe drought and greater risks from devastating wildfires. The presentation highlighted the social impacts from these climatic changes, such as impacts to mental health from extreme weather events, loss of reliable access to clean drinking water and food, and large-scale human displacement as a result of climate extremes.

A changing climate will impact water quality and water volume in the Lahontan Region. Warmer, drier winters will reduce Sierra Nevada snowpack, changing the natural hydrograph of all the regions' creeks and rivers, manifested in part by earlier spring runoff which will impact both environmental and human beneficial uses of water, and lead to many waterbodies running dry earlier in the summer. Warming winters will cause precipitation in the Lahontan Region to fall as rain rather than snow, increasing wintertime flood risk, reducing the amount of water stored as snow in the Sierra, while also disrupting spring melt flow volumes. Disruptions to spring melt will impact the growing season, which will affect the natural cycles of plants, animals and insects in the region. Agricultural operations which rely on a steady supply of water flowing from the High Sierra may have to find innovative solutions to water supply, such as off channel water storage, to mitigate the earlier and less voluminous spring runoff. Municipal supply will also be impacted as streams and rivers dry up, and municipalities, such as the city of Los Angeles, who rely on water from the Eastern Sierra, must begin to plan for reductions in the available water for their customers.

While the projected future for Earth's climate is alarming, the IPCC reports that there is still time to limit the severity of anthropogenic climate warming if the global community takes immediate action to reduce greenhouse gas emissions. The Fifth Assessment concludes there is still time to reduce emissions and keep the rise in global average temperatures to below the 1.5°C threshold if unilateral action on greenhouse gas emissions is taken now. By reducing emissions and limiting average atmospheric warming closer to an approximately 1.5°C increase than a 2°C increase, there will be fewer adverse impacts to biodiversity, fewer impacts to fisheries, and improved chances of access to clean water. Taxing emissions at the source has been shown to be a successful economic tool to encourage a shift away from fossil fuel burning. This strategy has been deployed in British Columbia where the government uses collected funds to address social inequities. Dr. Ebi implored the audience to think about climate warming as an opportunity for innovation rather than as a cost to society, and that even small changes can add up to make a big difference to greenhouse gas emissions.

The Water Board has already begun to develop a climate change mitigation and adaptation strategy. Recommendations could include plans to promote groundwater recharge, expedite and simplify alpine meadow restoration activities, and expand floodplain building prohibitions.

The second part of the seminar included a panel discussion from three wildland fire experts, Chris Anthony from CalFIRE, Alex Hoon from the National Weather Service (NWS) Reno office, and Matt Mehle from the NWS San Francisco office. The discussion was moderated by Brandon Miller, a supervising weather producer for CNN. Eight of the twenty most deadly wildfires in California have occurred in the last two years, although the conditions which have enabled these catastrophic fires have developed over the past several decades. Chris Anthony warned the audience that wildfire occurrence in



Figure 1: Wildfire Panelists (from left) Brandon Miller (CNN), Matt Mehle (NWS), Chris Anthony (CalFIRE), and Alex Hoon (NWS)

the state will unfortunately likely get worse before it gets better. Contributing factors include dead and dying trees that add more fuels to the forest floor, disrupted precipitation patterns and record high temperatures as a direct result of climate warming, a dwindling Sierra Nevada snowpack, and snowmelt which occurs earlier in the season. The combination of climate warming, changes to traditional precipitation patterns, legacy forestry management and legacy fire suppression practices have enabled wildfire to exhibit new behaviors previously unseen in the Western States. During the 2018 Carr Fire, which destroyed Whiskeytown National Recreation Area and many neighborhoods in and around the city of Redding, CalFIRE documented a fire tornado which developed as a result of the extreme atmospheric instability created by the fire. The fire tornado, which was comparable to a severe “traditional” tornado with wind speeds of more than 156 miles per hour, measured half a mile wide and left a trail of destruction two miles long. CalFIRE found properties in and around the fire perimeter with no apparent fire damage, but instead suffered tornadic damage from the winds created by the fire. Alex Hoon warned that the occurrences of fire tornados could likely be a new reality for fire in the West, as favorable fuel conditions and a warming climate work symbiotically to create fires capable of creating their own weather systems.

Despite ominous signs of the destructive future of wildfire in the West, climate warming has already exacerbated the behavior and effects of wildfire in California. Traditionally, cooler nighttime temperatures have aided fire suppression efforts and have helped to naturally slow down the advancing fire line. CalFIRE has historically been able to make important strides battling wildfire during nighttime hours due to cooler and more favorable climatic conditions. Warming nighttime temperatures, coupled with warmer daytime temperatures, are creating exceptionally dry vegetation conditions, which in turn enable easier ignitions and increase fire intensities. Warmer nighttime temperatures are also affecting how firefighters tackle wildfire suppression. As nighttime temperatures increase and humidity decreases, fires burn hotter and more rampantly during the night than they have done in the past. Warmer nighttime temperatures also increase the risk of nighttime flare-ups and put firefighting personnel in greater danger. As fires burn hotter and with less nighttime respite, they advance faster and are more destructive. Rapidly advancing fire poses one of the greatest threats to urban development and has far reaching implications to water quality. Once wildfire enters urbanized areas it becomes urban fire, which brings a new set of dangers and issues that emergency services must deal with during the initial fire attack. Often wildland fire crews do not have the specialized equipment that is required to tackle urban blazes. Post-fire, a multitude of harmful chemicals and materials found in urban areas can be rapidly transported to nearby surface waters and may percolate to groundwaters, causing long-term environmental damage and posing potentially severe human health risks. The Water Board can prepare to take steps to minimize post-fire impacts to water quality, whether through expedited post-fire emergency permitting processes or by completing pre-fire planning exercises to identify potential water quality impacts in the event of a wildfire in certain watersheds. Water Board staff recognize that climate warming increases the ease of wildfire ignitions, intensifies how the fire burns, and impedes how emergency services can tackle blazes, and staff should prepare now for these effects. To that end, staff participates in the Water Board’s Emergency Response Technical Work Group to develop disaster response protocols and anticipates participating in a forthcoming SWAMP work group focused on post-fire water quality monitoring.

Faced with the grim realities of the future of fire in California, agencies such as CalFIRE and NWS are working together to better delineate the risks from, and responses to, wildfire. The latest addition to the Geostationary Operational Environmental Satellite Program, a joint NASA and NOAA mission to observe and predict weather events, can now detect hotspots at a resolution of 10 acres and is increasingly becoming an important tool to aid the early detection of fire. Advances in remote sensing techniques, better understanding of fire behavior, better understanding of weather patterns, and advances in the power of computers are allowing authorities to model weather patterns and wildfire together, the output of which can be highly valuable to identify where to deploy resources and which communities are most at risk. The

NWS is developing an early warning system based on the coupled fire and weather models which, it is hoped, will eventually be able to identify likely wildfire ignitions before they have begun, thus allowing CalFIRE to deploy suppression resources before major destruction or loss of life occurs. Using remote sensing techniques such as satellite imagery and cameras installed at strategic locations (such as the AlertTahoe fire cameras installed by the Tahoe Prosperity Center), coupled with advanced modeling techniques, authorities are working to identify fire and tackle the blazes before extensive damage can be wrought. Despite these promising technologies, California agencies must work proactively to implement tried-and-true management practices such as prescribed fire and forest fuels reductions programs if catastrophic wildfire is to be kept at bay, and it will take all levels of government to adapt to the risks brought by wildfire and by anthropogenic climate warming.

5. Tribal and Subsistence Fishing Beneficial Uses of Water: Conference, Beneficial Use Forum, and Designation of Tribal Liaison – *Cindy Wise*

Water Board staff is embarking on the process of designating water bodies in the Lahontan Region with the three new beneficial uses of Tribal Tradition and Culture (CUL), Tribal Subsistence Fishing (T-SUB), and Subsistence Fishing (SUB). The recently adopted 2018 Triennial Review of the Lahontan Basin Plan identified this process as Priority Project 8. These three new beneficial uses of CUL, T-SUB, and SUB were included in Part 2 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California – Tribal and Substance Fishing Beneficial Uses and Mercury Provisions, adopted by the State Water Board in May 2017. The State Board defined the three new beneficial uses but did not designate the uses for any water bodies, instead referring that task to the Regional Water Boards. To designate CUL or T-SUB in a Basin Plan, a California Native American Tribe must confirm the designation is appropriate. No confirmation is required to designate the SUB beneficial use.

Three recent staff activities related to this designation process are described below.

Conference on Tribal Water Quality in California: To learn more about Tribal water resources issues, staff recently attended the January 28 and 29, 2019 conference titled, “Tribal Water in California - A comprehensive update on current critical issues and tips for effective Tribal water strategies”. The conference focused on ways in which Tribes, governments (local, state and federal), and water agencies can work cooperatively to ensure sustainable water resources for mutually beneficial uses into the future. The conference started with an overview and update on the Federal Administration’s policy toward tribal water rights and settlements. The conference also showcased other recently concluded and ongoing Tribal water rights settlement issues using the Pechanga Tribe (California), Coeur d’Alene Tribe (Idaho), and Navajo Nation (Utah), as examples. The conference included an overview and status of protection of water quality through the designation of cultural beneficial uses in California Regional Water Quality Control Board Basin Plans. Water Board staff learned that the Central Valley Regional Board (RB 5) also identified designation of CUL, T-SUB, and SUB as a Triennial Review Basin Plan priority. Water Board staff will look for collaboration opportunities with RB 5 as both regions move forward with this task. Staff will use this and other information from the conference as it embarks on the process to designate water bodies in the Lahontan Region with CUL, T-SUB, and SUB beneficial uses.

Designation of Regional Water Board Tribal Coordinator: To coordinate with the State Water Board’s Tribal Liaison, each Regional Water Board has designated its own Regional Tribal Coordinator. Under the direction of the Region’s Assistant Executive Officer and the State Board’s Tribal Liaison, the role of the Tribal Coordinator includes providing expertise and acting as an advocate for their Region’s efforts concerning government-to-government relationships with California Native American tribes. Water Board staff Cindy Wise was recently assigned to serve as the Tribal Coordinator for the Region. She will serve as the Region’s point of contact for Tribal engagement and consultations. The State Board will soon be providing

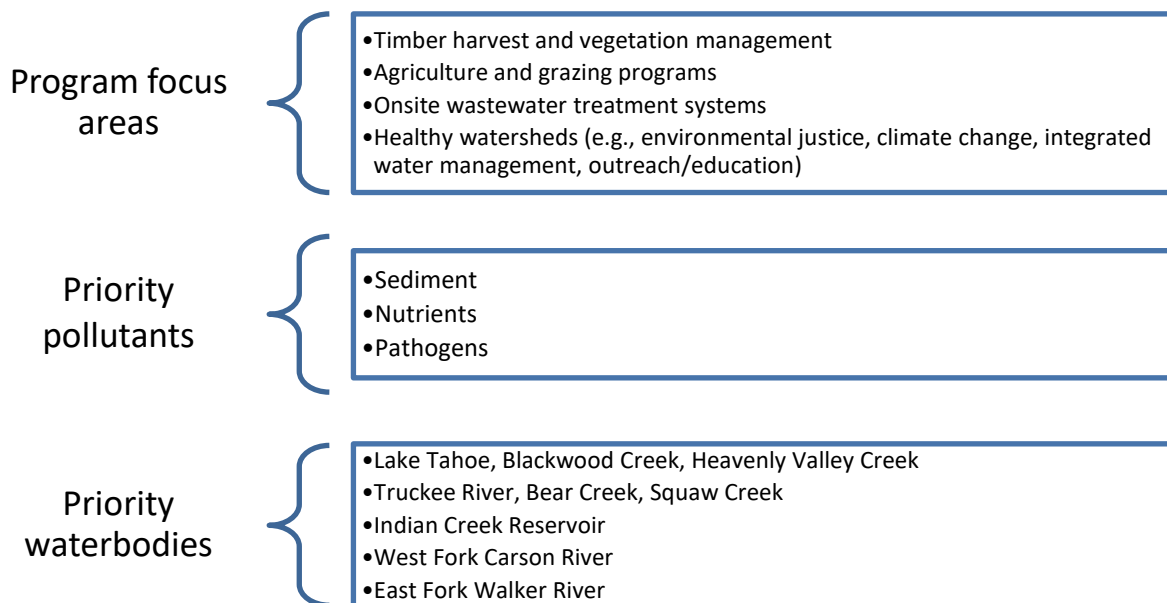
training for all Regional Water Board Tribal Coordinators to learn about California Native American Tribes, Tribal governments in California, and protocols for engaging Tribes.

6. **Updating California’s 5-year Nonpoint Source Program Implementation Plan – Anne Holden**

Every five years, California is required to update its plan for implementing a statewide program to control the impacts of nonpoint sources (NPS) of pollution on surface and groundwaters. The U.S. EPA provides funding to states with approved NPS plans to implement their NPS programs (in 2018, California received \$8.5 million in federal funding for its NPS program). The State Board leads the 5-year NPS implementation plan update effort, working jointly with Regional Boards, the California Coastal Commission and external stakeholders to outline the program’s goals, priorities, success metrics and key partnerships for the 2020 to 2025 period.

The significance of the 5-year NPS implementation plan is that it sets out the priorities of the State Board and the Regional Boards—providing a focused, coherent approach to addressing the most important NPS needs. It also makes some priority waterbodies eligible for project-specific grant funding through annual Clean Water Act section 319(h) grants and provides funding for Total Maximum Daily Load implementation. The priorities outlined in the 5-year NPS implementation plan drive the tasks contained in each Regional Board’s NPS program annual workplans. Updating the Water Board’s section of the NPS implementation plan gives us the chance to re-align NPS priorities to be consistent with our concerns related to existing and emerging NPS pollution issues. It also provides a venue to communicate our NPS vision and commitments to stakeholders.

The current (2014-2020) NPS implementation plan identifies the following focus areas and priorities for the Lahontan Region:



In the coming months, Water Board NPS unit staff will determine what priorities should be included in the upcoming 5-year plan, which is due to the U.S. EPA in June 2020.

Potential new priorities could include:

- Wildfire response/disaster recovery

- Control of legacy pollution sources (native surface roads, abandoned mines, sources of PFAS, etc.)
- Protecting high quality waters
- Focused climate change response actions and associated policy development
- Cannabis regulation efforts, with an emphasis on illegal cultivation sites on federal lands
- Harmful algae bloom training and response
- Assessing nutrient and bacteria loading from grazing activities in select waterbodies (e.g., Eagle Lake, Bishop Creek)

A stakeholder outreach plan is being developed by the State Board to identify key internal and external stakeholder groups and outline how to gain their input for plan development. A first draft of the NPS Implementation plan is anticipated for April 2019, with a public review draft scheduled for release in September 2019. Water Board staff will continue to inform the Water Board on NPS 5-year priorities development and progress through future Executive Officer Report articles.

7. Update on West Fork Carson River and Bishop Creek as Clean Water Act “Vision” Watersheds – Cindy Wise

Water Board staff has identified the West Fork Carson River and Bishop Creek as Vision Watersheds based on U.S. EPA’s 2013 vision of its Clean Water Act 303(d) program (Vision). For Vision Watersheds, Water Board staff has more flexibility in addressing water quality impairments than developing a Total Maximum Daily Load (TMDL). Impairments in the West Fork Carson River involve chloride, nitrates, nitrogen, phosphorus, sulfates, total dissolved solids, turbidity, and fecal coliform. The designated beneficial uses being adversely affected by such impairments include Cold Freshwater Habitat (COLD), Water Contact Recreation (REC-1), and Municipal Supply (MUN). Reaches of Bishop Creek are exceeding fecal coliform bacteria objectives and affecting the designated beneficial use of Water Contact Recreation (REC-1). Water Board staff selected the West Fork Carson River and Bishop Creek as viable candidates for Vision Watersheds because of the opportunities to integrate CWA 303(d) program requirements with planning, monitoring, stakeholder efforts, restoration, and other implementation efforts already in place or in progress, and a robust data set characterizing the watersheds.

Over the past year, Water Board staff developed public participation plans for both Vision Watersheds and drafted conceptual watershed models to illustrate potential impairments. Water board staff explored potential funding opportunities for focused sampling and for implementation measures. Water Board staff also engaged with local agencies, tribes and land owners, and participated in key outreach events, such as the Bishop Paiute Tribe Water Quality Plan Triennial Review public meeting (April 2018), Carson River Forum (April 2018), and the “Get on the Bus” Carson River Watershed Tour (October 2018).

For Bishop Creek, Water Board staff’s sanitary sewer survey was an opportunity to investigate potential sources of bacterial contamination from sewers (none were identified as part of the survey). Water Board staff also developed a project website, established a Lyris email subscription list, and began data analysis. Link to website and Lyris list subscription form:

https://www.waterboards.ca.gov/lahtontan/water_issues/programs/tmdl/bishopcreek.html

For the West Fork Carson River, Water Board staff is partnering with the State Board’s Non-Point Source Program staff for assistance. State Board staff drafted several land use GIS maps of the watershed that will aid in identifying potential pollutant sources. In coordination with SWAMP, Water Board staff established a headwaters bioassessment site. To address impairments, Water Board staff began identifying potential implementation measures.

Next tasks in both Vision Watersheds include further data analysis, formal outreach to key partners and stakeholders, as well as evaluating opportunities for implementation. For the West Fork Carson River watershed, Water Board staff will develop a project website and establish a Lyris email subscription list

South Lahontan Region

8. Antelope Valley Integrated Regional Water Management Group Meets in Palmdale to Discuss Acceptance of Amendment to 2018 Memorandum of Understanding and Projects List – Tiffany Steinert

The Antelope Valley Integrated Regional Water Management (IRWM) group held a meeting in Palmdale on January 23, 2019, to discuss the acceptance of the Amendment to the 2018 Memorandum of Understanding (MOU) between member stakeholder agencies. The new MOU incorporated new compliance requirements, which include updating region objectives to include determining the impacts from climate change, preparing a Storm Water Resources Plan, and preparing a Sediment Management Plan. The MOU is in the process of being accepted by each of the member stakeholder agencies. Currently, only two agencies are pending approval of the MOU.

The Antelope Valley IRWM group also discussed the current Projects on the list for Proposition 1 funding. Brian Dietrick of Woodard & Curran explained the items that would make each Project on the list more competitive, such as having California Environmental Quality Act documents complete and having all permits in place in addition to Projects that provide multiple benefits. Mr. Dietrick stated that reviewing agencies hope to see more Projects with longer life expectancies this round of funding, preferably 15 years or more.

The meeting concluded with public comments. Water Board staff invited the Antelope Valley IRWM group to present progress to date regarding the implementation of their Salt and Nutrient Management Plan during a future Water Board meeting. However, as the IRWM group is still compiling water quality data, they responded that a presentation would be premature at this time but could be considered for the future. The next Antelope Valley IRWM meeting will be held on March 6, 2019.

9. Standing Item - City of Barstow Wastewater Treatment Plant Compliance with Enforcement Orders – Ghasem Pour-ghasemi

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

Wastewater Treatment Plant Upgrades Completed

The Water Board issued a Cease and Desist Order (CDO) in 2007 to the City requiring the wastewater treatment plant to be upgraded and effluent disposal practices improved. The deadline for the City to complete wastewater treatment plant improvements was July 30, 2009. The City completed upgrades to its wastewater treatment plant as required. Additionally, the City made additional improvements to its wastewater treatment plant that reduced effluent total nitrogen from 30 milligrams per liter (mg/L), prior to CDO issuance, to less than 8 milligrams per liter (mg/L) in 2018. Rehabilitation of Percolation Ponds 1-3 is completed but minor erosion areas require repairs. Percolation Ponds 4 and 5 are next in line to be cleaned and reconstructed.

Currently, the City uses one primary clarifier, one aeration basin, two digesters, two secondary clarifiers, two screw presses, and all sludge drying beds. The remainder of the wastewater treatment plant is idle due to lack of inflow. The City rotates primary clarifiers, aeration basins,

and secondary clarifiers annually for maintenance and cleanup. The average effluent nitrate concentration for 2018 (Jan-Dec) is 5.20 mg/L and the average total nitrogen concentration is 7.43 mg/L. The treated effluent is discharged to Percolation Ponds 1, 2, 3, and 6, as well as to the South Irrigation Field where recycled water is used for fodder crop irrigation.

The last remaining requirement of the CDO is quarterly sampling of monitoring wells. Water Board staff are currently contemplating revising the WDR to conduct quarterly monitoring well sampling contained in the CDO to be incorporated into the revised Monitoring and Reporting Program (MRP) associated with the WDR. The revised MRP is anticipated to include groundwater monitoring requirements associated with the nitrate pollution groundwater cleanup requirements described below.

Nitrate Pollution Groundwater Cleanup

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.

BKT consultants, in cooperation with the City, applied for and received a \$1.7 million grant from the California Energy Commission to conduct a small technology pilot test that will extract groundwater (0.216 to 0.50 million gallons per day) to treat and remove both nitrate and perchlorate. The pilot test treatment system is designed to treat perchlorate only after treatment of nitrate present in the extracted water is achieved. BKT has completed the construction of two treatment vessels and related appurtenances and propagated the treatment vessels with required microbes. The BKT pilot project system is equipped with continuous sensors to measure oxidation reduction potential, dissolved oxygen, nitrate as nitrate, and pH. The treatment system is treating approximately 0.216 million gallons per day of extracted groundwater from the Soapmine Road area next to Webster Road. The system treats both nitrate and perchlorate in the extracted groundwater to a non-detect level before discharging to a leach field located about 200 feet upgradient of the extraction well.

Since November 2016, Water Board staff met with the City on several occasions to discuss details of the construction and disposal site for the treated water. Water Board staff last met with the City and BKT on July 11, 2018. City staff will continue to work together cooperatively with Water Board staff towards cleanup solutions.

Residential Well Sampling 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 the CAO. During fourth quarter 2018, the City sampled 36 residential wells. Analytical results show that only one residential well measured nitrate as nitrogen concentrations (11 mg/L) that exceeded the drinking water maximum contaminant level for nitrate as nitrogen (10 mg/L). A total of nine private wells showed nitrate as nitrogen concentrations exceeding 5 mg/L (level at which the CAO requires replacement drinking water delivery). The nitrate concentration trends are decreasing in some residential wells and increasing in others. The City has been providing 10 residents within the required study area with uninterrupted replacement water service (bottled water). Water Board staff are reviewing a City request to reduce the frequency of the sampling for the nine residential wells that have not exceeded 5 mg/L nitrate as nitrogen for the last several years.

Initially, the City and the Water Board staff agreed that the best course of action to help cleanup nitrate in the subsurface would be to apply treated effluent generated from the pilot test system onto the North Irrigation Field to flush nitrate out of the unsaturated soil column. However, due to the co-mingling of the nitrate and perchlorate plumes in groundwater, and out of an abundance of caution, it was decided that the initial treated effluent from the pilot test project would be discharged 200 feet upgradient of the extraction well. Once the pilot test project technology had proven that it could successfully remove both nitrate and perchlorate to below detectable levels, then the treated pilot test system effluent could be applied to the North Irrigation Field. Groundwater with nitrates flushed from the North Irrigation Field would flow towards and be captured by a series of extraction wells, where the water would be pumped to the treatment vessels and nitrate would be removed. Over time, this treatment mechanism would allow for the cleanup of nitrate polluted groundwater from the North Irrigation Field, as required by a CAO.

10. Land Disposal Program – CR&R, Inc. Environmental Services Facilities Tour – *Christina Guerra*

On February 7, 2019, Water Board staff, Christina Guerra and Tom Browne, attended a tour of the CR&R, Inc., Environmental Services facility (Facility) in Perris, California. Those who participated in the tour included staff from multiple Regional Water Boards and the State Board. CR&R, Inc., Environmental Services, provides a variety of services including residential and business municipal solid waste collection, green waste collection, street sweeping, transportation of various waste types, and recycling services for several counties in southern California. The Facility in Perris is a state-of-the-art recycling and organics processing facility that has combined three international technologies to create the nation's largest anaerobic digesters that produce compost and renewable natural gas. The development of the Facility was driven by the implementation of CalRecycle SB 1383, establishing targets to reduce disposed organic waste streams to landfills. The Facility has received multiple state and federal funding grants.

The Facility uses an advanced organics process technology to anaerobically digest waste streams, such as green and food materials, to produce a high-quality digestate (compost-like material) and renewable natural gas. The technology consists of the anaerobic digesters, a water-wash system to remove impurities from the biogas that is generated, and pressure-swing adsorption system to separate methane and carbon dioxide. CR&R's proprietary process is a closed loop system resulting in zero untreated emissions. The natural gas that is produced from the process is of a high quality, and, as a result of this, CR&R has the only natural gas interconnect in California with the Southern California Gas Company.

11. Inyo-Mono Regional Water Management Group – *Tom Browne*

Water Board staff attended the Inyo-Mono Regional Water Management Group (Inyo-Mono RWMG) meeting on January 30, 2019, in Bishop. The meeting was hosted by the U.S. Forest Service and the Bureau of Land Management at their building in Bishop. Holly Alpert, PhD, and Program Director for the Inyo-Mono RWMG, led the meeting.

The Inyo-Mono RWMG receives annual donations from stakeholder members. However, of the 40 water and sanitation districts within the Inyo-Mono IRWM region, only 13 donated in 2018. Dr. Alpert led the discussion regarding how to get more donations from water and wastewater utilities and non-profits. Stakeholders at the meeting agreed to reach out to all water districts and sanitation districts to request that they ask their respective boards to make regular annual donations to the Inyo-Mono RWMG. The Inyo-Mono RWMG is seeking funding this year to hire consultants to develop detailed projects aimed at stormwater capture and reuse, groundwater replenishment, and groundwater pollution prevention.

The Inyo-Mono RWMG has newly been awarded disadvantage community involvement (DACI) grant money from the California Division of Water Resources (DWR). Dr. Alpert showed the Inyo-Mono RWMG a breakdown of how this money is being spent, and the group approved of the expenditures.

Proposition 84 has a second round of grants becoming available in 2020. Projects seeking grant money must be submitted to the State Water Resources Control Board by late summer 2019. The first round of grants awarded \$112 million to 27 projects throughout the state. Some members of the Inyo-Mono RWMG presented their proposed projects during this meeting. The Town of Mammoth has an \$8.9 million project for new detention basins and slope protection; the Fort Independence Indian Community of Paiute Indians of Fort Independence Reservation has a \$0.5 million project for a 27 acre-foot detention basin for flood control and groundwater recharge; the Amargosa Opera House in Death Valley proposes replacement of its antiquated open sewage ponds with a modern septic tank and leach field; and Big Pine Community Services District has a project for additional treated sewage disposal ponds as they need the capacity during heavy rain/snow years.

The group discussed the merits of these four projects but did not decide on which of them would be submitted to DWR to pursue grant money. All four of the above projects are currently under consideration.

The next regular meeting of the Inyo-Mono RWMG will be in April 2019.

12. 2019 Innovators High Desert Water Summit – “How Generation Z Will Save the Future of Water in California” – Patrice Copeland

Mojave Water Agency (MWA) held its third annual *Innovators High Desert Water Summit* (Water Summit) on February 8, 2019. Water Board staff Patrice Copeland, Supervising Engineering Geologist, attended the event. The Water Summit was sponsored by MWA and co-sponsored by Golden State Water Company, Liberty Utilities, and the Victor Valley Chamber of Commerce. MWA sent out notices to local schools in search of “MWAvengers” to help solve water problems. Two different contests were held. The first was a student essay contest, with a grand prize of a \$3,000 scholarship to the top essay winner, and a \$1,000 scholarship for two essay finalists (Photo 1). The second contest was looking for “Curiosity Quest Problem Solvers,” wherein teams of students from various local schools competed for a \$3,000 check for the winning team’s school and gift cards for each team member; two runner-up teams each received \$1,000 for their schools. The Water Summit, designed to increase water sustainability awareness among younger generations, including middle and high school STEM students, hosted various speakers, as well as the contest winners.

The Water Summit opened with a presentation by keynote speaker Nicholas Chow, Water Engineering Project Manager for the Luskin Center for Innovation at the University of California, Los Angeles (UCLA). Data were presented showing how the threat of climate change may well affect water in the future, and include more extreme weather events, destructive wildfires, and more polluted water. Mr. Chow has worked with the National Oceanographic and Atmospheric Administration and the National Aeronautics and Space Administration as well as universities across the country. Michelle Reed, Assistant Engineer at the Inland Empire Utilities Agency (IEUA), located in Chino, also spoke at the Water Summit. Ms. Reed presented information on the work she performs at IEUA and the potential jobs that students could seek in water utilities, especially as 40 percent of her workforce may retire in the next five years.

Winner of the student essay contest, Gavin Copeland, is a senior at Serrano High School in Phelan (and grandson of Patrice Copeland). Approximately 40 essays were submitted to MWA for this contest. Mr. Copeland and two other finalists, Ms. Karyn Pham (Apple Valley High School) and Ms. Jesette Western (Sultana High School), were selected to compete for

the \$3,000 scholarship. Ms. Pham and Ms. Western were each awarded \$1,000 scholarships. Mr. Copeland's essay focused on his love of geology, science, technology, and concern for the environment. Inspired by current issues regarding the drought and our arid climate, Mr. Copeland's presentation at the Water Summit included research on the amount of recycled water available for use in California, and ideas for how we can and should use more recycled water for agriculture and irrigation rather than municipal drinking water supplies.



Photo 1 – Essay contest finalists Jesette Western and Karyn Pham flank contest winner Gavin Copeland. Contestants are holding their giant scholarship checks, awarded to them from the Mojave Water Agency during the 2019 Innovators Water Summit. Photograph by Patrice Copeland, Lahontan Water Board.

During the Water Summit, three breakout sessions were held to introduce students to various aspects of the water industry, including “Water Education Class,” with Kyle Snay, Operations Engineer, and Jesse Ramirez, Operations Superintendent, both with Golden State Water Company; “Breaking into the Water Industry,” with MWA’s General Manager, Tom McCarthy, and Robert Hampson, Hydrogeologist with MWA; and “Shaping California’s Water Policies,” with Chelsea Haines, Regulatory Advocate with the Association of California Water Agencies.

The final portion of the Water Summit was the announcement of the winning school team for the “Curiosity Quest Problem Solvers” competition, which was to design a water-efficient community that could sustain a minimum of 40,000 people and include a manufacturing plant and a strip mall. This portion was hosted by Joel Greene, creator and host of four television series: *Curiosity Quest*, *Curiosity Quest Goes Green*, *Inland Empire Explorer*, and *Our California*. A total of seven area schools entered the contest, including, Melva Davis Academy, Oak Hills High School, University Preparatory, Victor Valley High School, Silverado High School, Academy for Academic Excellence, and La Contenta Middle School. The winning team, Oak Hills High School, was awarded \$3,000 for the school. Runner-up teams

received \$1,000 for their respective schools and included the Academy for Academic Excellence and Victor Valley High School.

13. Mojave Water Agency Technical Advisory Committee Meeting – *Patrice Copeland*

Water Board staff attended a meeting of the Mojave Water Agency Technical Advisory Committee (MWA TAC) on February 7, 2019. The MWA TAC is an independent, voluntary group of water purveyors, pumpers, and other interested parties located within MWA's boundaries. The MWA TAC meets in a public forum to discuss common concerns and acts to assist the MWA in pursuit of its legal objectives.

During this meeting, Jeanette Hayhurst was recognized for her leadership of the MWA TAC for the past four years by incoming chairperson Marina West, General Manager of the Bighorn-Desert View Water Agency. Adan Ortega, with the California Association of Mutual Water Systems, Community Water Systems Alliance, made a presentation regarding disadvantages communities and the Safe Drinking Water Fund. Mr. Ortega discussed legislation enacted and proposed that could assist disadvantaged communities, other relevant legislation, and the Human Right to Water law. Additionally, he gave information regarding the California Water Foundation and the Community Water Center and how they can help disadvantaged communities.

A presentation was made by Matt Howard and Lance Eckhart, of MWA, providing information to MWA TAC members regarding Proposition 1 funding rounds and projects proposed for both the Lahontan and Colorado River Water Board's funding areas, respectively. Mr. Howard asked member agencies to update their project submittals, referred them to the draft 2018 Implementation Grant Proposal Solicitation Package guidance, and discussed the need for projects to be "shovel ready," as much as possible to facilitate project approval. Statewide priorities for such projects, project eligibility criteria, and disadvantaged community waivers were discussed. Those entities whose projects are selected to be put forward in applications agreed to form an ad-hoc committee.

TAC Members held a "call for Projects" for those members desiring to submit new projects to be added to the Mojave Integrated Regional Water Management (IRWM) Plan. These included presentations by the City of Twentynine Palms for a feasibility study for the wastewater treatment plant; two projects from the City of Adelanto for automatic smart meter reading using Advanced Meter Infrastructure technology and a manhole replacement project for four failed sewer manholes; a Golden State Water Company project for ion exchange treatment at their Barstow wells, Bradshaw well field; and a Bighorn-Desert View Water Agency project to replace a production well for its Goat Mountain System. MWA TAC members voted to approve the addition of all these projects to the Mojave IRWM Plan.

Kevin Sullivan, Pacific Gas and Electric Company (PG&E), presented information regarding the status of the PG&E chromium plume location, groundwater elevation data collected as part of plume remediation (825 monitoring wells and piezometers with 71 transducers collected water level data continuously), and proposed that the Lenwood Recharge Basin be used to recharge water between flood events to sustain groundwater levels in the Centro Basin, rather than the Hodge Basin, as historical records show the 2,000 acre feet per year of recharge has retarded declining groundwater.

The next TAC meeting is scheduled for April 4, 2019.

14. Update on Barstow Perchlorate, March 2019 – *Alonzo Poach*

Status of SB 445 Grant

In January 2018, the Department of General Services and the State Board selected APTIM Services, Inc., as the consultant to design and construct a pilot-scale remediation system and

to conduct site characterization for the Barstow Perchlorate Project. The contract was awarded in the summer of 2018 after a scope of work and associated costs were developed. A site characterization work plan was finalized in December 2018 to refine the nature and extent of soil and groundwater perchlorate contamination at the site. APTIM and Water Board staff will use initial data collected during site characterization to design a pilot-scale treatability study system for the treatment of perchlorate in the source area for soil and groundwater. Field work is anticipated to begin April 2019.

Water Board Contract for Supplying Bottled Water

After the discovery of perchlorate pollution in the area, Water Board staff applied for grant money through the State Water Board's Division of Financial Assistance, Cleanup and Abatement Account Unit, to provide replacement water to impacted residents. Funding is currently available to provide bottled water through June 30, 2020, for residents that meet the disadvantaged household income eligibility requirements. A total of 17 residential supply wells in the area are impacted by perchlorate at or over the 6 parts per billion (ppb) maximum contaminant level (MCL). The Water Board currently supplies 4 residents in the area with bottled water for consumption (drinking and cooking). Residents that do not qualify for bottled water assistance are notified and provided the results of perchlorate concentrations from their respective wells and advised not to consume water from their well if the perchlorate concentration is higher than the MCL of 6 ppb.

Status of Barstow Perchlorate Plume

Water Board staff continues to collect quarterly groundwater samples to track plume movement and assess data trends. Water Board staff collected first quarter 2019 groundwater samples during January 2019 from 18 private supply wells and 9 groundwater monitoring wells. The groundwater monitoring wells are owned by the City of Barstow. The results of first quarter 2019 sampling round are pending from the laboratory and expected by early March 2019.

15. Complexity of Wastewater Effluent Nutrient Management at the City of Bishop and the Eastern Sierra Community Services District – *Woonhoe Kim*

Since February 2015, Water Board staff have been working with the City of Bishop (City) and Eastern Sierra Community Services District (District) to address intermittent elevated nitrate in groundwater that has been detected in groundwater monitoring wells adjacent to the wastewater effluent disposal areas. Water Board staff believes that intermittent elevated nitrate in groundwater is caused by flushing nitrate from soil beneath the facultative lagoons during rainfall events. Both wastewater treatment and effluent disposal facilities for each entity are adjacent to each other as shown on Figure 1.

Initially, the City and District cooperated to submit a joint Feasibility Study in May 2016, evaluating four alternatives for combining their wastewater influent, treatment, and disposal options. Both entities were concerned that the cost of any alternative was more than their ratepayers would bear. Therefore, Water Board staff agreed to allow the City and District pursue a joint Technical Work Plan to make limited incremental improvements at lower costs.

After completing various projects, in July 2018, the City notified the Water Board that both entities had mutually decided to pursue separate options for long-term wastewater treatment improvements. Conceptually, both the City and the District's options would achieve Water Board objectives to protect groundwater quality.

The approximate size of wastewater treatment and disposal facilities owned by each entity are shown in the table below.

Properties Owned by the City and the District			
Entity	Treatment Plant Property (acres)	Disposal Ponds (acres)	Irrigated Land (acres)
City	10	40	40
District	7	58	0

The District is considering expansion of its wastewater treatment plant to include nutrient reduction. This project will enable the District to treat increased flows and to reduce nitrate concentration in effluent. The District is pursuing grant funding opportunities because of economic impact. The District's consultant, R.O. Anderson Engineering, Inc., will provide the District with 60% design drawings for the project by the end of March.

The City is considering two options for improving efficient agricultural effluent disposal: 1) a small irrigation pivot on the City's property, and 2) a large irrigation pivot on the City and Los Angeles Department of Water and Power (LADWP)'s properties. While pivot irrigation systems will improve irrigation efficiency and switching from native improved grass pasture to alfalfa crop will increase nitrogen removal, the large irrigation pivot will provide more nutrient uptake and removal of nitrogen than the small irrigation pivot.

In January 2019, Water Board staff and the City had a conference call regarding the City's effluent discharge management plan. The City is considering two options for irrigation pivots, as mentioned above. The City wants to implement the large irrigation pivot because it more effectively provides for long-term nutrient management. However, the City faces obstacles regarding obtaining a land lease with the LADWP..

LADWP has leased land to the Tatum family for decades near the City's and the District's facilities. Additionally, the Water Board has issued Water Reclamation Requirements , which remain in effect today, to the Tatum's allowing recycled water from the City and District to be used for crop irrigation. The City's waste discharge requirements allow effluent discharge as recycled water onto 85 acres of LADWP property leased to the Tatum's even though the City has no formal agreement with LADWP.

The City has begun discussion with LADWP about leasing additional LADWP property to expand its recycled water use on irrigated cropland. Neither the City, nor District, have provided definite schedules for their future wastewater treatment and disposal improvement plans. The Water Board expects to receive the plans that will be separately proposed by the City and the District within the next year.

As shown on Figure 1, the City's and the District's wastewater treatment plants are located next to each other. The City owns 80 acres (larger yellow rectangle) for oxidation ponds, percolation ponds, and irrigation fields, while the District owns 58 acres (larger green rectangle) for percolation ponds. Surface irrigation is currently used for pasture land irrigation, but is inefficient because of the uneven land surface. In addition, Figure 1 shows two aspects related to the City and District, as follows.

1. The small and large circles show the City's two options for improving effluent management, proposing a smaller and larger irrigation pivot. The larger irrigation pivot is more efficient for nitrogen removal.
2. Additionally, the current authorized flood irrigation areas are shown in colored hatched marks; the City discharge areas are shown in blue, and the District discharge areas are shown in red. The actual flood-irrigated areas are shown in light green irregular shapes. LADWP owns the land south of the City's and District's owned properties. The City anticipates that modifying lease agreements with the LADWP may take some time.

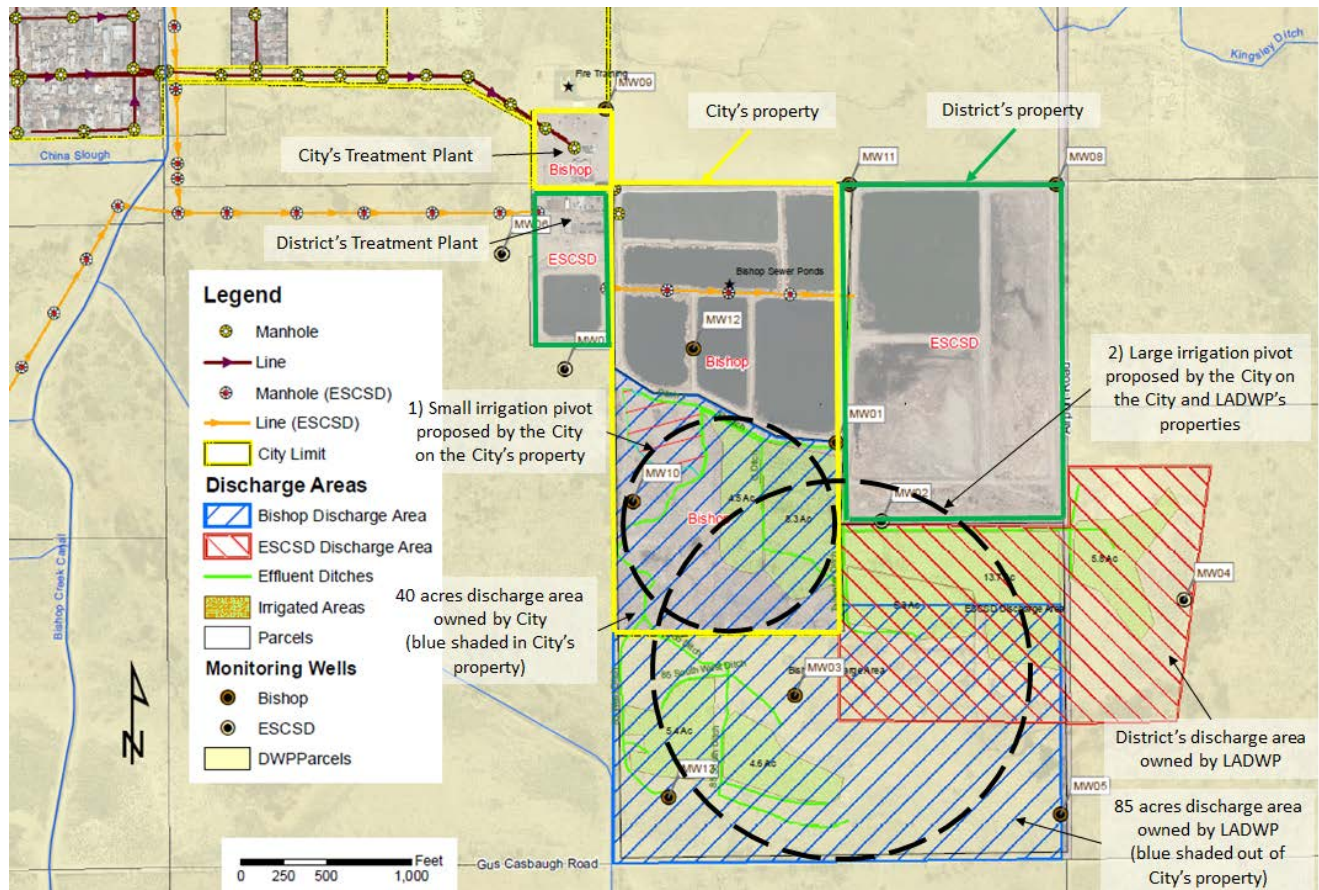


Figure 1. Discharge areas by the City of Bishop and Eastern Sierra Community Services District.

16. Standing Item-Onsite Wastewater Treatment System – Status of Local Agency Management Plans – John Morales and Trevor Miller

This standing item describes the Water Board's implementation of the State Board's *Water Quality Control Policy for Siting, Design, Operation, and Maintenance of Onsite Wastewater Treatment Systems (OWTS)*, or Policy, originally adopted on November 13, 2012. The Policy became effective on May 13, 2013.

Waiver Renewal

A brief description of the Policy's tiers follows:

- Tier 0 – Existing systems functioning properly.
- Tier 1 – Statewide standards for OWTS siting, design, operation, and maintenance.
- Tier 2 – Local agencies approving OWTS with different than statewide standards may submit a *Local Agency Management Program (LAMP)* to the Water Board for approval.
- Tier 3 – OWTS located within watersheds containing water bodies impaired by pathogens or nutrients.
- Tier 4 – Failing systems.

An important feature of the Policy is the issuance of a conditional waiver (Waiver) for OWTS covered under the Policy. The Policy waived the requirement for OWTS Dischargers to submit a report of waste discharge and waived the need to obtain waste discharge requirements and pay annual fees. Because Waivers are effective for only five years, the State Board renewed the Policy's Conditional Waiver on **April 17, 2018**, for another five years. The State Board also modified the list of water bodies impaired by pathogens or nutrients, although there were no changes for any water body in the Lahontan Region.

LAMP Status

The Policy required statewide standards for siting, designing, and operating OWTS, but allowed local agencies to propose their own standards in a LAMP. Not all local agencies approve OWTS as some cities defer to their respective counties for OWTS approval. Some local cities approving OWTS elected to use the statewide Tier 1 standards for new or replacement systems. LAMPS submitted by local agencies approving OWTS with standards differing from the statewide standards must be approved by the Water Board. The State Board designated one lead Water Board for counties crossing multiple regional board boundaries. The following table describes the local agency tiers and LAMP status for the Lahontan Region and the entities that approve the various LAMPS.

Local Agency LAMP Approval Status			
Local Agency	Tier	Lead Regional Water Board	LAMP Approval Status
Adelanto, City of	1	6	No LAMP submitted
Alpine County	2	6	Pending ¹
Apple Valley, Town of	2	6	Approved
Barstow, City of	2	6	Approved
California City, City of	2	6	Approved
El Dorado County	2	5	Approved
Hesperia, City of	2	6	Approved
Inyo County	2	6	Approved
Kern County	2	5	Approved
Lassen County	2	6	Pending ²
Los Angeles County	2	4	Approved
Modoc County	2	5	Approved
Mono County	2	6	Approved
Nevada County	2	5	Approved
Placer County	2	5	Approved
San Bernardino County	2	6	Approved
Sierra County	2	5	Approved
Victorville, City of	1	6	No LAMP Submitted

¹ Alpine County submitted an initial draft LAMP and responded to staff comments on January 17, 2018, with a revised LAMP. After this submittal, Alpine County lost contractor support. Water Board staff began assisting the County in rewriting the LAMP near the end of 2018 to help facilitate the process. Additional comments were issued to Alpine County on January 18, 2019, and Water Board staff met with Alpine County to review the LAMP on January 30, 2019. The proposed LAMP is tentatively scheduled to be heard at an Alpine County board meeting in April 2019 and considered for approval by the Water Board at its May 2019 board meeting.

² Lassen County submitted an initial draft LAMP dated December 8, 2016. Water Board staff issued comments on November 15, 2017, including comments from the Central Valley Water Board dated February 15, 2017. During this time, Lassen County lost contractor support to revise and complete the document. Near the end of 2018, Water Board staff began working with Lassen County to produce a finalized LAMP. Lassen County has since employed a LAMP-experienced contractor to begin work on a final LAMP. Water Board staff are committed to finalizing Lassen County's LAMP before the end of fiscal year 2018-2019 and have tentatively scheduled the proposed LAMP for consideration at the June 2019 Water Board meeting.

Annual Reports

The Policy requires local agencies to submit annual reports by February 1 of each year. This year (2019) is the first year we began receiving annual reports covering 2018. Tier 1 local agencies must submit limited data required by the Policy, section 3.3, for the following:

1. Number and location of complaints,
2. Applications and registrations of septage haulers in the jurisdiction, and
3. Number, location, and descriptions of new or replacement permits issued.

Tier 2 agencies must provide the above information, and in addition, provided the information required in the Policy, sections 9.3.1 through 9.3.2, which includes the following:

9.3.1 - Number, location and description of permits issued where a variance is granted; and,

9.3.2 - Information to evaluate the impact of OWTS discharges and assess the extent to which groundwater and local surface water quality may be adversely impacted.

Additionally, Water Board staff requested local agencies provide information on parcel size and design flow to evaluate density loading.

Workshops regarding the OWTS Policy were held in July 2013, September 2016, April 2017, and May 2017. Subsequently, several individual LAMPS for entities in the South Lahontan Basin were approved by the Water Board in public meetings.

The table below includes information from 2018 Annual Reports submitted by the local agencies. The quantities shown in the table below reflect totals for a county or a city as a local agency. In some cases, such as Los Angeles County that encompasses Regions 4 and 6, the results are for the local agency as a whole.

Based on the data from the 2018 Annual Reports, it can be seen that the combined quantity of new permits and/or the OWTS systems that were connected to sewers between the Town of Apple Valley and the City of Hesperia far exceeds the combined summation of all the other local agency jurisdictions.

Additionally, the City of Hesperia connected the local high school (Hesperia High School) to the collection system. Because the high school flow exceeded 20,000 gallons per day, and now discharges to the collection system, the Water Board does not have to issue Waste Discharge Requirements. The Policy requires all OWTS discharges greater than 10,000 gallons per day to be regulated by Waste Discharge Requirements. After connection, the City of Hesperia removed the septic tanks and seepage pits.

Local Agency 2018 OWTS Annual Report Comparison					
Local Agency	Unauthorized Sewage Discharges	Nuisance Odors/Complaints	Quantity of New Permits Issued	Quantity of OWTS Systems Repaired/Replaced	Quantity of OWTS Connected to Sewer
Adelanto, City of	Tier 1 – Annual Report not received				
Alpine County	LAMP not yet implemented - Pending				
Apple Valley Town of	0	0	63	238	14

Local Agency 2018 OWTS Annual Report Comparison					
Local Agency	Unauthorized Sewage Discharges	Nuisance Odors/Complaints	Quantity of New Permits Issued	Quantity of OWTS Systems Repaired/Replaced	Quantity of OWTS Connected to Sewer
Barstow, City of	N/R ¹	0	N/R ¹	1	N/R ¹
California, City of	N/R ¹	N/R ¹	N/R ¹	47	N/R ¹
El Dorado County	9	14	0	6	0
Hesperia, City of	N/R ¹	N/R ¹	135	213	15
Inyo County	N/R ¹	3	6	10	N/R ¹
Kern County	0	5	147	144	0
Lassen County	LAMP not yet implemented – Pending				
Los Angeles County	2	3	24	8	N/R ¹
Modoc County	N/R ¹	N/R ¹	2	4	N/R ¹
Mono County	N/R ¹	0	18	12	N/R ¹
Nevada County	N/R ¹	5	N/R ¹	10	N/R ¹
Placer County	7	13	167	38	0
San Bernardino County	8	32	110	0	0
Sierra County	N/R ¹	N/R ¹	10	3	N/R ¹
Victorville, City of	Tier 1 – Annual Report not received				

¹N/R – Not Reported

Water Board staff continue to improve the management of OWTS-related information, including a plan for a more detailed review of annual reports. Water Board staff is also working diligently with the State Water Board and local agencies to improve and standardize the annual report format. In 2019, we begin working with local agencies with approved LAMPS to develop the required 5-year water quality assessment reports.

For general information, Figure 1, below, shows a typical residential OWTS configuration, with the transport of wastewater from a residence into a septic tank where sludge is settled at the bottom and wastewater continues to flow to the leach field. The sludge is periodically removed from the bottom of the septic tank.

Figure 2, below, shows a modification of the dispersal system. In the high desert, seepage pits are commonly used instead of a leach field. Seepage pits are constructed by an excavation lined with a porous masonry in which household waste discharges from a septic tank and gradual seeps into the ground.

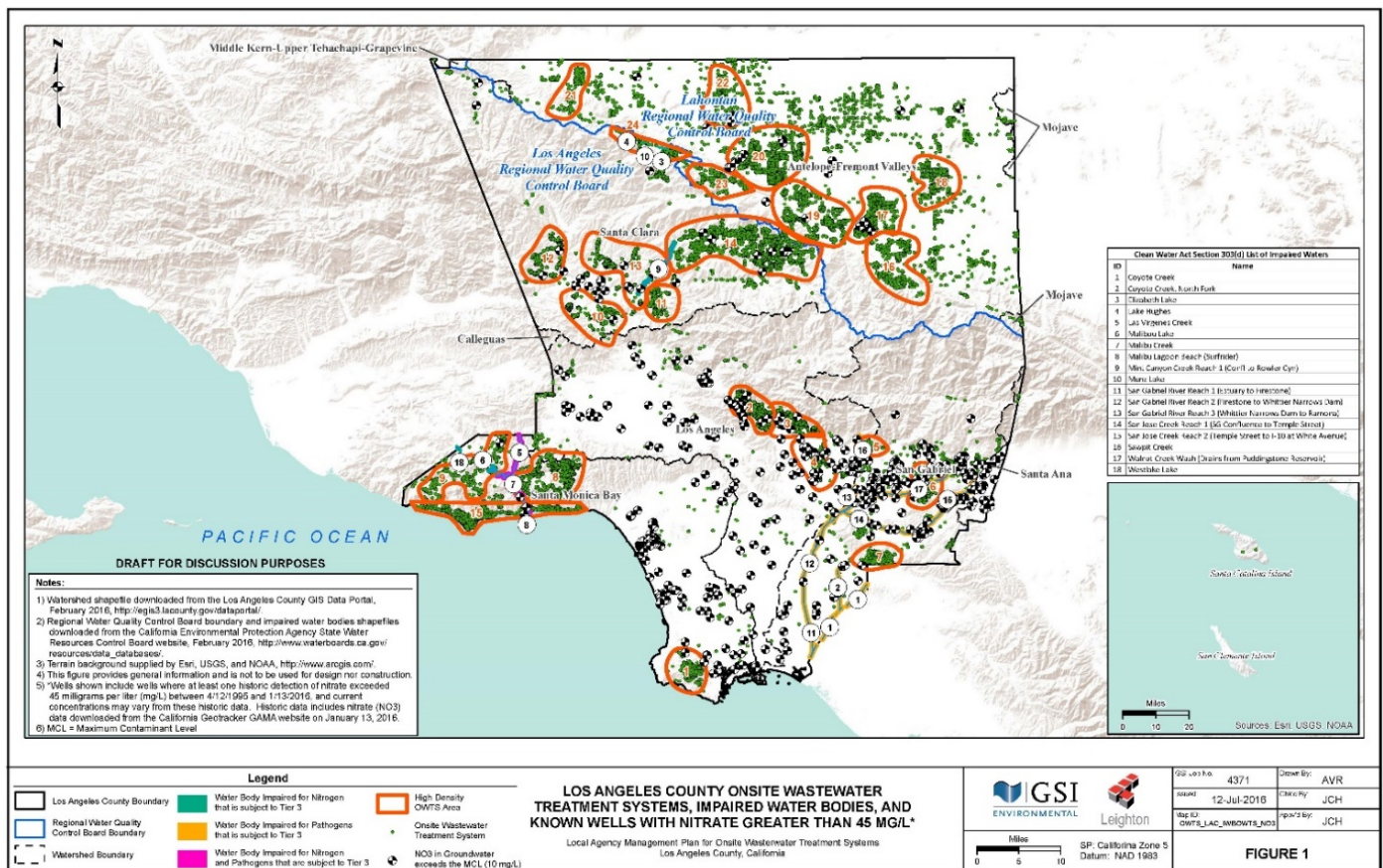
Figure 3, below, is a map from the 2018 Annual Report for Los Angeles County and shows high septic density areas within the red cluster shapes of two Regional Water Board jurisdictions: Los Angeles and Lahontan. The small green circles represent individual OWTS systems. Black and white well symbols identify the locations where nitrate as nitrogen has exceeded the drinking water standard of 10 milligrams per liter (mg/L). Distribution of OWTS in the Los Angeles County portion of the South Lahontan Basin is illustrative of what Water Board staff expect to see in other portions of our region with higher density OWTS installation; higher nitrate concentrations may also be associated with such areas.



Figure 1 – Main components of a residential OWTS showing plumbing from toilets to a septic tank and to a leach field.



Figure 2 – The photo shows a seepage pit commonly used in the high desert. Instead of a leach field, effluent flows into a sub-surface pit and seeps into the surrounding soil.



OWTS information may be found on the Water Board’s web site, including draft LAMPs, final proposed LAMPs, approved LAMPs, and Water Board comment letters. The web site address is as follows.

http://www.waterboards.ca.gov/lahtontan/water_issues/programs/owts/index.shtml

ENCLOSURE 7

EXECUTIVE OFFICER ACTION ITEMS

MARCH 2019 EO REPORT - JANUARY 16, 2019 to FEBRUARY 15, 2019

Lahontan Regional Water Quality Control Board

DOCUMENT	DATE SIGNED
NO FURTHER ACTION REQUIRED *	
No Further Action Required for Four Corners Chevron, 2852 State Highway 58 (currently 5852 E State Highway 58) Kramer Junction, San Bernardino County, UST Case #6B3600681T, UST Cleanup Claim #11756 Geo Tracker Global ID#T0607100862	1/22/2019
No Further Action Required for Former Terrible Herbst No. 68, 2762 Lake Tahoe Blvd., South Lake Tahoe, El Dorado County, UST Case No. 6T0006A, UST Cleanup Fund Case No. 18692	1/24/2019
No Further Action Required For Leo S. Jones Oil Company (Formerly Sherman Petroleum Bulk Plant), 702-805 Johnstonville Road, Susanville, Lassen County, Site Cleanup Program Case No. 6T0046A, Geotracker Global ID No. T0603500008	1/29/2019
No Further Action Required for Bijou Market Place, 3600 Lake Tahoe Boulevard, South Lake Tahoe, El Dorado County, UST Case # 6T0412A, GeoTracker # T10000011824	2/8/2019
401 WATER QUALITY CERTIFICATION	
Notice of Applicability: General 401 Water Quality Certification Order (SB14007IN) Requirements and Basin Plan Prohibition Exemption for the Tahoe Keys Property Owner Association Laminar Flow Aeration Trial Project, El Dorado County	1/22/2019
Amendment To Clean Water Act Section 401 Water Quality Certification And Basin Plan Prohibition Exemption For East Cedar Pass Safety Improvement Project, Modoc County	2/8/2019
WASTE DISCHARGE REQUIREMENTS	
Notice of Applicability of Statewide General Waste Discharge Requirements for Discharges to Land with a Low Threat to Water Quality, Water Quality Order 2003-0003-DWQ, Fort Cady Project, San Bernardino County	1/24/2019
Notice Of Applicability – Conditional Waiver Of Waste Discharge Requirements, Water Quality Order No. WQ-2017-0023-DWQ, Koala Farms Incorporated, San Bernardino County - APN 312926151000	1/24/2019
Notice Of Applicability – Conditional Waiver Of Waste Discharge Requirements, Water Quality Order No. WQ-2017-0023-DWQ, Green Sky Organics, Inc., Kern County - APN 206-032-30	1/24/2019
Notice Of Applicability – Conditional Waiver of Waste Discharge Requirements, Water Quality Order No. WQ-2017-0023-DWQ, Muskrat Consultants, LLC, San Bernardino County - 0459-671-010	1/24/2019
Notice Of Applicability – Waste Discharge Requirements, Water Quality Order No. WQ-2017-0023-DWQ, Foothill Farms, LLC, Kern County – APN 216-180-22	1/28/2019
Notice Of Applicability – Waste Discharge Requirements, Water Quality Order No. WQ-2017-0023-DWQ, Lindbergh Cannabis Park-08, Kern County - APN 302-510-08, WDID No. 6V15CC407157	1/31/2019
Notice Of Applicability – Conditional Waiver Of Waste Discharge Requirements, Water Quality Order No. WQ-2017-0023-DWQ, Emerald Vortex, Kern County – APN 206-031-16, WDID No. 6V15CC408302	1/31/2019
Notice Of Applicability – Waste Discharge Requirements, Water Quality Order No. WQ-2017-0023-DWQ, Lindbergh Cannabis Park-06, Kern County — APN 302-510-07 (Jamna #5)	2/7/2019

	Notice of Applicability – Waste Discharge Requirements, Water Quality Order No. WQ 2017-0023-DWQ, Lindbergh Cannabis Park -06, Kern County — APN 302-510-06 (Jamna #6)	2/7/2019
	Notice of Applicability for General Waste Discharge Requirements for Small Construction, Including Utility, Public Works, and Minor Streambed/Lakebed Alteration Projects, Board Order R6T-2003-0004, Sheep Creek Culvert at Lone Pine Canyon Road Project, San Bernardino County	2/7/2019
	Notice of Applicability – Conditional Waiver of Waste Discharge Requirements, Water Quality Order No. WQ-2017-0023-DWQ, Gemstar Research Group, San Bernardino County - APN 3129-251-34, WDID 6V36CC408132	2/7/2019
	Notice of Applicability – Waste Discharge Requirements, Water Quality Order No. WQ-2017-0023-DWQ, Lindbergh Cannabis Park-05, Kern County - APN 302-510-05, WDID No. 6V15CC407054	2/13/2019
BOARD ORDERS		
	Board Order No. R6T-2019-0001, Rescission of Cleanup and Abatement Order No. 85-1, as Amended, Former Terrible Herbst No. 68, 2762 Lake Tahoe Blvd., South Lake Tahoe, El Dorado County, UST Case No. 6T0006A, UST Cleanup Fund Case No. 18692	1/24/2019
	Board Order R6T-2019-0002, Clean Water Act Section 401 Water Quality Certification For Aspen Fales Shoulders Project, Mono County	1/25/2019
	Board Order No. R6T-2019-Xxxx, Clean Water Act Section 401 Water Quality Certification For Skyline Road Extension Project, Lassen County	1/28/2019
	Board Order No. R6T-2018-0025-A1, Clean Water Act Section 401 Water Quality Certification for East Cedar Pass Safety Improvement Project, Modoc County	2/8/2019
	Board Order No. R6T-2019-0004, Clean Water Act Section 401 Water Quality Certification and Basin Plan Prohibition Exemption for Mettler Shoreline Stabilization Project, Placer County	2/8/2019
EXEMPTIONS		
	Exemption to Waste Discharge Prohibition for Discharge of Waste to Land Below the Highwater Rim of Lake Tahoe for the Mettler Shoreline Stabilization Project, Placer County	1/25/2019
	Exemption To Waste Discharge Prohibition Below The Highwater Rim Of Lake Tahoe For The Battle Born Property Shoreline Revetment Project, Tahoe Vista, Placer County	1/29/2019
MISCELLANEOUS DOCUMENTS		
	19-024-106 – Contract with USGS to investigate groundwater and periphyton nutrient sources at Lake Tahoe's nearshore. Three years, \$215,526.	1/22/2019
	18-048-160 – Contract with UC Davis to investigate climate change impacts on carbon and nutrient cycling at Lake Tahoe's nearshore. Three years, \$343,039.	1/22/2019

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

Additional links:

General Policy information: http://www.swrcb.ca.gov/ust/lt_cls_plcy.shtml#policy081712

Copy of Policy: http://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2012/rs2012_0016atta.pdf

Implementation Plan:

http://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2012/110612_6_final_ltcp%20imp%20plan.pdf

ENCLOSURE 8

UNAUTHORIZED DISCHARGE REPORT

01/16/2019 TO 02/15/2019

Discharger/ Facility	Location	Basin	Regulated Facility?	Discharge Date	Discharge Volume	Description of Failure	Additional Details	Status
COUNTY: El Dorado								
Tahoe City Public Utility District	Edgewater Drive, Tahoe City	North)	Yes	1/24/2019	Unknown	Release caused by sewer main failure located under Lake Tahoe.	The incident resulted in a sewage release to the lake and is on- going. Efforts are in progress to stop the release. The cause of the release is under investigation.	Water Board staff are working with the discharger
Tahoe City Public Utility District	West Lake Boulevard, Homewood	North	Yes	1/25/2019	250 gallons	Failure caused by debris build up at T connection, where a 4" lateral meets a 6" main. Not enough upstream flow to move the debris through the main. Sewage spilled from lateral clean out.	Spill to paved surface. Final destination was into two (2) drainage interceptors and a culvert crossing.	Both drainage interceptors were fully excavated and cleaned. The culvert was hydro- cleaned.

* All discharges to surface waters are included in the report.
Discharges to land of less than 100 gallons are not included in the report.

UNAUTHORIZED DISCHARGE REPORT

01/16/2019 TO 02/15/2019

Discharger/ Facility	Location	Basin	Regulated Facility?	Discharge Date	Discharge Volume	Description of Failure	Additional Details	Status
COUNTY: San Bernardino								
Murphy Construction	Ranchero Road, Oak Hills	South	No	1/18/2019	Unknown ~100 gallons	Release caused by a stuck float switch in a dosing tank.	Sewage release flowed from a manhole approximately 300 yards down the street. Sewage absorbed by soil.	Release stopped. Float in the dosing tank was replaced.

* All discharges to surface waters are included in the report.
Discharges to land of less than 100 gallons are not included in the report.