EXECUTIVE OFFICER'S REPORT • NOVEMBER 2018
Covers September 16, 2018 – October 15, 2018

Contents

State and Regional

1. Personnel Report – *Eric Shay*

New Hires

- Laura Korman, Environmental Scientist, North Basin Regulatory Unit, South Lake Tahoe. This new position will primary work on Lake Tahoe water quality issues, including permitting for shoreline projects and scientific research.

- Valerie Enright, Seasonal Clerk, Victorville. This position provides basic administrative support, such as typing and reception.

Vacancies – We are currently recruiting for the following positions:

- Engineering Geologist, Cleanup/Site Investigation & Enforcement Unit, South Lake Tahoe. This position provides oversight on Underground Storage Tank sites and other sites in the Emergency, Abandoned, and Recalcitrant Fund as well as the Expedited Claim Account Program. Oversight is also provided for mines and a Department of Defense site.
- Associate Governmental Program Analyst, Victorville. This position provides administrative support to the region in the areas of personnel analysis, workforce planning and analysis, contract management, and procurement.
- Scientific Aid, Non-Point Source Unit, South Lake Tahoe. This position compiles and organizes scientific data from water quality investigations and implementation and effectiveness monitoring reports; and assists technical staff in collecting data during field visits for various activities, including timber harvest, stream restoration, meadow restoration, and grazing projects.
- 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.

Departures

- Ananda Thomason, Scientific Aid, North Basin Regulatory Unity, South Lake Tahoe.

North Lahontan Region

2. Lahontan Water Board Bioassessment Monitoring Update - *Alanna Misico*

The Lahontan Water Board Surface Water Monitoring Program (SWAMP) continued its bioassessment monitoring efforts for the 2018 field season. Water Board staff, Department of Fish and Wildlife-Water Pollution Control Lab, and Department of Fish and Wildlife-Marine Pollution Studies Laboratory sampled a total of 19 sites throughout the region during the 2018 field season.

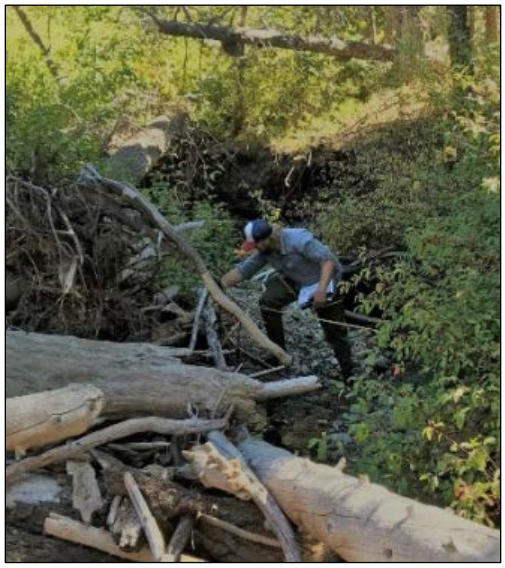

Figure 1 - Measuring Physical Habitat

The Bioassessment Monitoring Program is comprised of biological surveys, habitat monitoring, and water quality data, which provides an indication of overall stream health and the impacts of upstream pollutant sources and conditions. The data provided by this monitoring program integrates water quality over time; and therefore, is more holistic than water chemistry-based monitoring alone. Stream pollution trends and climate change impacts may also be derived from this data.

The study design includes 57 targeted sites to be sampled over a three-year period (2017-2019). Staff conducted a region-wide collaborative effort (i.e., Department of Fish and Wildlife, Sierra Nevada Aquatic Research Laboratories, Tahoe Regional Planning Agency, area stakeholders, State and Regional Board staff) to determine the most relevant monitoring locations that were

Figure 2 - Bioassessment Field Crew

subsequently prioritized. The highest-priority sites included SWAMP long-term water quality monitoring sites. Similar to the 2017 field season, sites for the 2018 field season were subsequently chosen based on accessibility, safety, and wadeability, and can be viewed in the table, below. Fires, road closures, swift flows, and staffing issues made for a challenging field season. Looking forward to the 2019 season, much if not all of the 2019 bioassessment monitoring will be contracted out, allowing staff to focus on other program priorities.

Long-term goals of bioassessment monitoring will help staff and others to protect the high-quality waters, and to identify and address degraded waters. This project will also help to meet one of the USEPA Vision Priorities and support the Triennial Review Bio-Objectives Project.

REGION 6 SWAMP BIOASSESSMENT 2018

Crew	Site Name	Notes
R6	West Fork Carson, abv Forestdale Creek	Reference Site/previous survey done by TRPA in 2010
R6	Warren Fork (Lee Vining Cr) Mid Valley	Reference Site/sampled by SNARIL 2006 and 2010
R6	Sardine Creek, abv McKay Creek	Potential impairments from recent (2018) wildland fire/response to recent watershed restoration
R6	McKay Creek, abv Sardine Creek	To further investigate Phosphorus impairments/sampled by SNARL 2005
R6	General Creek blw Hwy 89	To analyze water quality impacts of Hwy 89 runoff and campground sewer/compliments TRPA site
R6	Griff Creek, lower	This site compliments TRPA bioassessment monitoring/investigate urban impacts
ABL	Susan River, abv Willard Creek	Region 6 SWAMP long term data trend network site /listed for TDS
ABL	Susan River at Commercial Rd	Region 6 SWAMP long term data trend network site /listed for TDS
ABL	Emerson Creek	Prop 84 Ag Site (Emery Creek)/data gap
MLML	West Walker River	Region 6 Perm WQ Site to further investigate Phosphorus impairments
MLML	Horton Creek abv LA aqueduct	Requested by VV staff/data gap
MLML	North Fork Cottonwood, blw exclosure	RCMP reference site
MLML	North Fork Cottonwood, exclosure	RCMP reference site
MLML	Lee Vining Cr, lower/central channel	RCMP reference site last sampled in 2003
MLML	Pine Creek	Requested by VV staff/sampled by SNARL 2005 and 2010
MLML	Lone Pine Creek at USGS gage	Region 6 SWAMP long term data trend network site
MLML	West Fork Carson blw Willow Creek	Region 6 SWAMP long term data trend network site /listed for TDS
MLML	West Fork Carson, Lower BLM	Perm Site To further investigate impairments/sampled SNARL 1999 and 2010
MLML	West Fork Carson at Woodfords Bridge	Potential impairments from recent (2018) chemical spill/Listed for TDS

All datum NAD 83 unless otherwise noted

*WGS84

**NAD27

Results from the 2018 field season are pending. All results will be uploaded to California Environmental Data Exchange Network (CEDEN) once they become available: http://www.ceden.org/, and also added to the California Stream Condition Index (CSCI) map, a statewide bioassessment scores map:

https://www.waterboards.ca.gov/water_issues/programs/swamp/bioassessment/csci_scores_map.html.

For additional information regarding state and regional bioassessment monitoring, including news releases and publications, please visit:

https://www.waterboards.ca.gov/water_issues/programs/swamp/bioassessment/.

3. Mammoth Stamp Mill Site – *Abby Cazier*

Figure 1 - Mill Site Flywheel

On September 25, 2018, Lahontan Regional Water Quality Control Board (Water Board) staff met with Tammy Randall Parker, Forest Supervisor for the Inyo National Forest, Gordon Martin, District Ranger for the Inyo National Forest Mammoth Lakes Ranger District, and Kevin Connolly, Inyo National Forest staff, to conduct a tour of the Mammoth Stamp Mill Site (Mill Site) in Mammoth Lakes, Mono County. The purpose of the tour was to familiarize Water Board staff with the Mill Site that is located on land owned by the United States Forest Service (USFS), and to discuss the status of site investigations and the proposed Time Critical Removal Action (TCRA). Water Board staff is looking forward to working collaboratively with the USFS on future site investigations and remedial actions to ensure contamination related to mercury, arsenic, and potentially other metals at the Mill Site does not adversely affect human health, the environment, or the beneficial uses of Mammoth Creek and its tributaries.

The Mill Site is a former silver and gold ore processing facility that operated seasonally from 1878 through 1880. The Mill Site is located in a part of Mammoth Lakes known as “Mill City”. Ore processed at the facility was extracted from the Old Mammoth Mine located southwest of the Mill Site. During processing, mercury was added to the stamp crushed ore to facilitate the separation of silver and gold. The ore from this region contained other metals including arsenic, copper, iron, lead, and zinc. Waste material and spent ore was deposited onsite to form waste piles.

Figure 2 - Mill Diversion Trench

Fourteen privately-owned recreational cabins are present on the land on lots leased to the cabin owners by the USFS. The former Mill Site remnants include a concrete foundation, an iron flywheel (Figure 1), five waste piles, and a dry diversion trench (Figure 2) that conveyed water from the Mill Area to a seasonal unnamed tributary to Mammoth Creek (Tributary) that flows through the Mill Site (Figure 3).

Figure 3 - Unnamed Tributary to Mammoth Creek

The USFS conducted a Preliminary Assessment/Site Inspection to evaluate the extent of contamination at the Mill Site following water quality investigations conducted by California Trout, Inc. in 2012 and 2013 that revealed elevated mercury levels in the unnamed tributary and in Mammoth Creek downstream of its confluence with the unnamed tributary. Human health and ecological risk assessments determined that the metals concentrations in soil, waste pile soil, and sediment exceed the screening criteria developed and exposure poses a medium to high health risk to cabin occupants and recreational users of the Mill Site. In response to the human health risk assessment, the USFS closed the Mill Site to cabin and recreational users in April 2017, and it will remain closed until a planned Time Critical Removal Action (TCRA) is complete. The risk evaluation determined that further investigation may be required to ensure that metals are not leaching from the soil/sediment into groundwater

or being transferred from the soil/sediment to surface water, thereby posing risks to human and ecological receptors.

In 2017, the USFS began a Focused Site Investigation to determine the lateral and vertical extent of arsenic and mercury (contaminants of concern [COCs]) in the soil and sediment in the Cabin Area (Figure 4) that was not well defined during the Preliminary Assessment/Site Inspection. The initial phase of this investigation determined that the concentrations of COCs varied with depth and it appeared that mine waste was often encountered below the first 0.5 to 1.0 foot of vegetative cover and topsoil or sediment. The Focused Site Investigation determined that COCs exceeding cleanup goals (mercury and arsenic cleanup goals are 31 and 13.3 mg/kg, respectively) were detected at depths of up to 3 feet below ground surface. Based on investigation results obtained to date, it is estimated that over 11,000 cubic yards of contaminated soil/sediment (including the waste pile volume) will have to be excavated and disposed of offsite during the TCRA. In October 2018, the USFS resumed soil sampling efforts at the northern portion of the site to further evaluate the lateral and vertical extent of contamination in the Cabin Area and analytical results will be used to refine the proposed excavation/disposal volume.

Figure 4 - Cabin Area Overview

A potential responsible party (PRP) has been identified but has been unwilling to comply with USFS directives requiring the PRP to complete the TCRA. The USFS issued a Unilateral Administrative Order (Order) to the PRP in November of 2017, and to date, the PRP has not complied with the Order. The USFS is actively trying to secure the funding required for the Mill Site TCRA. If the PRP does not agree to perform the TCRA during settlement negotiations, it is likely that cleanup activities will be performed in stages by USFS contractors as funding becomes available.

4. Tahoe Keys Collaborative Process – *Russell Norman*

On October 3, 2018, Doug Smith, Rob Tucker and Russell Norman attended a meeting hosted by Tahoe Regional Planning Agency (TRPA), focused on establishing a collaborative process associated with the Tahoe Keys Property Owners Association (TKPOA), Tahoe Keys Lagoons Restoration Project. TKPOA is proposing the Tahoe Keys Lagoons Restoration Project to control aquatic invasive species using aquatic pesticides and non-chemical control methods in the Tahoe Keys Lagoons. The meeting was coordinated and led by Zephyr Collaboration, the facilitators under contract with TRPA to conduct the public outreach process for the project. An initial study under CEQA was performed in 2017 and a determination to conduct a full CEQA/NEPA analysis was made. The full CEQA/NEPA analysis is anticipated to begin in Fall 2018 following completion of the RFP process to select a consultant for the work.

In attendance were representatives from TKPOA, TRPA, the League to Save Lake Tahoe, and Tahoe Water Suppliers Association. The meeting covered a wide range of topics from reviewing

the draft schedule, reviewing the list of stake holders and covering questions from those present on the draft collaborative process design. The draft collaborative process design proposes an aggressive schedule for stakeholder and general public collaboration to meet the project goals of having the CEQA/NEPA analysis completed and all required permits issued by May of 2020. The next meeting is scheduled for October 11, 2018.

5. **Upcoming Changes to Timber Harvest and Vegetation Management Regulations: Policy Considerations, Early Stakeholder Input and Path Forward** - *Jim Carolan and Anne Holden*

2014 Timber Waiver Set to Expire

The Water Board's current timber harvest regulatory document is a conditional waiver of waste discharge requirements (the 2014 Timber Waiver, Board Order No. R6T-2014-0030), regulating waste discharges resulting from timber harvest and vegetation management projects. The 2014 Timber Waiver applies to projects that range from homeowner defensible space operations to local Fire Protection Districts' community protection plans, to large Wildland Urban Interface projects proposed by the California Department of Parks and Recreation, the Bureau of Land Management, and the US Forest Service (USFS). Commercial timber harvest conducted by small landowners, industrial timber companies, and the USFS are also covered under Timber Waiver categories. The 2014 Timber Waiver expires in April 2019. In California, all waivers of waste discharge requirements are limited to five years in duration, after which they must be renewed or replaced. If a waiver expires without Water Board action (renewal or replacement), projects subject to that waiver no longer have regulatory coverage unless project proponents submit a Report of Waste Discharge and are issued waste discharge requirements.

Policy Considerations

Due to the increased severity of wildfires in California, regulatory and policy changes to allow a more streamlined approach to forest management and fuels reduction projects have been made, and more are likely forthcoming. These changes may result in new requirements for projects that do not readily fit into the defined categories of the 2014 Timber Waiver. For example, Senate Bill (SB) 901 is a broad package of recently adopted legislation to address multiple aspects of wildfire prevention and recovery in California. Among its provisions, SB 901 creates two new timber harvesting exemptions within the Forest Practice Rules, including one which would allow for road building. In addition, it requires utility companies to develop vegetation management plans to reduce wildfire risk associated with electrical infrastructure, and revises rules related to CALFIRE's permitting of non-industrial timber management plans. Another key policy change was made in May 2018, when Governor Brown released Executive Order B-52-18, outlining steps for increasing forest management and restoration, providing regulatory relief, and reducing barriers for prescribed fire. Regulatory revisions in response to this Executive Order are in development.

In developing a revised timber harvest and vegetation management regulatory document, Water Board staff are contemplating ways to respond to these and other upcoming changes to facilitate increasing the pace and scale of projects to improve forest resilience and mitigate mounting wildfire risk worsened by climate change, while protecting and maintaining water quality.

Early Input on Potential Revisions to 2014 Timber Waiver

In September 2018, Water Board staff solicited suggestions from stakeholders on potential revisions to the 2014 Timber Waiver. Preliminary input from the regulated community indicates generally positive feedback on the contents and organization of 2014 Timber Waiver. However, an overarching concern is that new mandates such as SB 901 described above will result in significant changes to key rules and regulations, including possible changes to the state of California's Forest Practice Rules (FPRs). Changes to the FPRs to incorporate the requirements of SB 901 won't be drafted until January 2019 at the earliest. In light of potential significant changes to statewide requirements, stakeholders have expressed a desire to build more time

into the Timber Waiver update process to ensure a well-crafted regulatory process that's consistent with these new policies going forward.

Path Forward

Because the 2014 Timber Waiver will expire in April 2019, action must be taken prior to expiration to ensure continuing regulatory coverage for projects subject to the Waiver. Water Board staff agrees that incorporating additional time into the Timber Waiver revision process will be beneficial. To ensure regulatory continuity and promote stakeholder involvement, I propose to bring a resolution for short-term renewal, without changes, of the 2014 Timber Waiver to the Water Board's March 2019 regular meeting. This action will allow Water Board staff time to conduct additional outreach, solicit ideas, and gather information on upcoming changes to statewide requirements. Staff will to work together with the regulated community and other stakeholders to develop either an updated Timber Waiver or a General Order of waste discharge requirements which aligns with the dynamic regulatory climate for forest management in California. I anticipate the new waiver or General Order will be brought to the Board for consideration in late 2019.

6. Carson River Watershed "Get on the Bus" Tour - *Cindy Wise and Hannah Schembri*

Staff participated in the Carson Water Subconservancy District's (CWSD) annual two-day bus tour of the Carson River Watershed on October 11 and 12, 2018. The CWSD serves as the coordinating agency for the Carson River Coalition, a large stakeholder group of federal, state, county, and tribal agencies; non-governmental entities, private citizens, and landowners. The Carson River Watershed "Get on the Bus" Tour covered a variety of watershed topics and locations from the headwaters in Alpine County, California, to a tour of the Lahontan Reservoir Dam and Gate House near Fallon, Nevada.

Figure 1 - Discussing the importance of stabilizing, restoring, and protecting Carson River streambanks.

Figure 2 - Water Board staff member Hannah Schembri explains Leviathan Mine remediation efforts.

As part of the tour, Water Board staff gave two presentations: 1) on the status of Leviathan Mine remediation efforts, and 2) describing the West Fork Carson River Vision Project (an alternative TMDL approach to restoring water quality and impaired beneficial uses). Water Board member Jardine shared his vast knowledge of Alpine County mining and overall history in his presentation on the tour. Other presentation topics included water rights, river restoration projects, water quality and quantity, floodplain management, invasive species, tribal programs, agriculture, historic mining, recreation, fisheries and habitat, and education and outreach programs.

Stops on the watershed tour included Heenan Lake and Markleeville Creek in Alpine County, Dangberg Home Ranch Historic Park and alluvial fan flooding in the Carson Valley, East Silver Saddle Ranch Open Space in Carson City, Virginia City's water filtration plant, river stabilization near Fort Churchill State Park in Lyon County, and finishing at Lahontan Reservoir.

This tour provided an excellent opportunity for Water Board staff to interact with Carson River stakeholders on water quality issues at Leviathan Mine and the West Fork Carson River. Staff plans to follow-up with stakeholders in response to their questions and interest regarding future involvement in the Water Board's efforts at Leviathan Mine and with the West Fork Carson River Vision Project.

South Lahontan Region

7. Jack in the Box Package Wastewater Treatment Plant and Renewal of the Coverage of State General Order - *Woonhoe Kim and Ghasem Pour-Ghasemi*

Jack in the Box operates a fast-food restaurant in Yermo, east of Barstow, and treats wastewater in a small package plant with subsurface disposal. The wastewater treatment facility has recently had some operational issues.

Lahontan Water Board currently regulates Jack in the Box in Yermo under the 1997 Statewide General Waste Discharge Requirements for Discharges to Land by Small Domestic Wastewater Treatment Systems. However, this order does not have numerical effluent limitations for any constituents. A newer Statewide Order, General Waste Discharge Requirements for Small Domestic Wastewater Treatment Systems allows the Executive Officer to establish effluent limitations for biochemical oxygen demand and total suspended solids. Because the facility design flow is less than 20,000 gallons per day, no effluent limitation for nitrogen may be established, per the order.

On October 3, 2018, Water Board staff met with representatives from Jack in the Box to discuss the wastewater treatment facility performance problems. To better understand current conditions and corrective actions needed for this facility, Water Board staff requested Jack in the Box provide the following information by January 4, 2019: 1) an explanation for the high effluent TDS concentrations, 2) corrective actions for operational problems and optimization procedures for wastewater treatment facility performance, and 3) a flow schematic for the wastewater treatment facility. With this information, Water Board staff will be able to determine the best course of action for permit compliance of this facility.

8. Palmdale Water District Groundwater Recharge Project Laboratory Site Visit for Soil Column Pilot-Scale Study - *Woonhoe Kim*

The Palmdale Water District (District) proposes a Palmdale Regional Groundwater Recharge and Recovery Project to provide a reliable water source and to meet the long-term water demand in Palmdale. The project includes construction of new facilities to deliver State Water Project water from the California Aqueduct combined with recycled water from the Palmdale Wastewater Reclamation Plant operated by the Sanitation Districts of Los Angeles County (LACSD). The combined flow will be discharged to a surface spreading basin on an undeveloped site in northeast Palmdale to recharge the groundwater aquifer (Figure 1). The project will be developed in three phases and the District plans to meet the requirements for recycled municipal wastewater contribution in *Title 22 California Code of Regulations, State Board, Division of Drinking Water, Recycled Water Regulations*.

On September 21, 2018, Water Board and Division of Drinking Water (DDW) staff met with District staff and its consulting firm in Pasadena to verify the status of a soil column study demonstrating soil aquifer treatment.

The main purpose of the pilot-scale soil column study is to evaluate the removal of n-nitrosodimethylamine (NDMA) and total organic carbon (TOC) from two main feed-water sources.

The preliminary results of the soil column test suggest that 1,4-dioxane and NDMA were effectively removed, while perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA) were increased. The increases of PFOS and PFOA are not clear at this moment, but possible explanations are as follows: 1) biotreatment converts PFAS mixture into stable endpoints, such as PFOS and PFOA, resulting in higher concentrations and 2) the column test equipment uses Teflon tape that may be releasing PFOS and PFOA.

Water Board staff expects to receive the revised Title 22 engineering report and Report of Waste Discharge soon; however, this project also must complete its review by a Blue-Ribbon Panel comprised of a group of scientists and health experts. That panel has not yet been scheduled. Water Board staff estimates several months to a year delay.

To date, neither the United States Environmental Protection Agency nor the State of California has set maximum contaminant levels (MCLs) or drinking water standards for any of the PFAS compounds. However, on July 13, 2018, the State Water Resources Control Board released *Guidelines for Testing and Reporting on PFOA and PFOS in Drinking Water* and *Notification Level Issuance*, separately. DDW set interim Notification Levels of 14 parts per trillion (ppt) for PFOA and 13 ppt for PFOS. The purposes of these notification guidelines are for water agencies to voluntarily test contaminants and an initial step in the process of adopting a formal state regulatory standard (i.e. MCLs). Water Board staff will include PFOA and PFOS monitoring requirements for this project.

PFAS are very stable manmade fluorinated hydrocarbons addressed in water quality mainly as PFOS and PFOA. Both were used not only as coatings in a wide range of consumer products designed to be waterproof, stain-resistant, or non-stick, but also in fire-suppressing foam. Based on laboratory animal studies, these highly fluorinate hydrocarbons may lead to adverse health outcomes in humans, such as reproductive and immunological systemic issues.

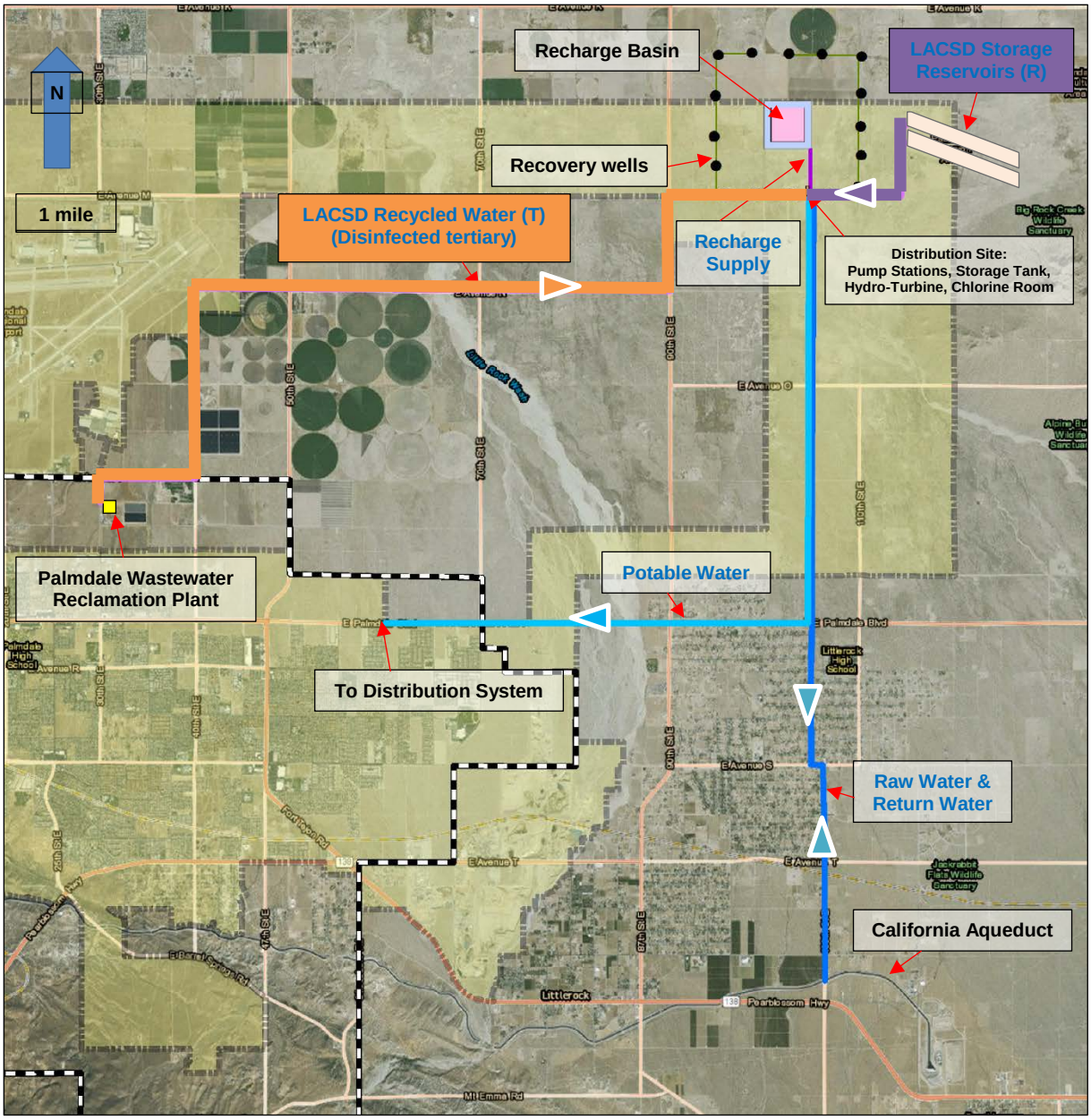

Figure 1 - Palmdale Regional Groundwater Recharge & Recovery Project facility map.

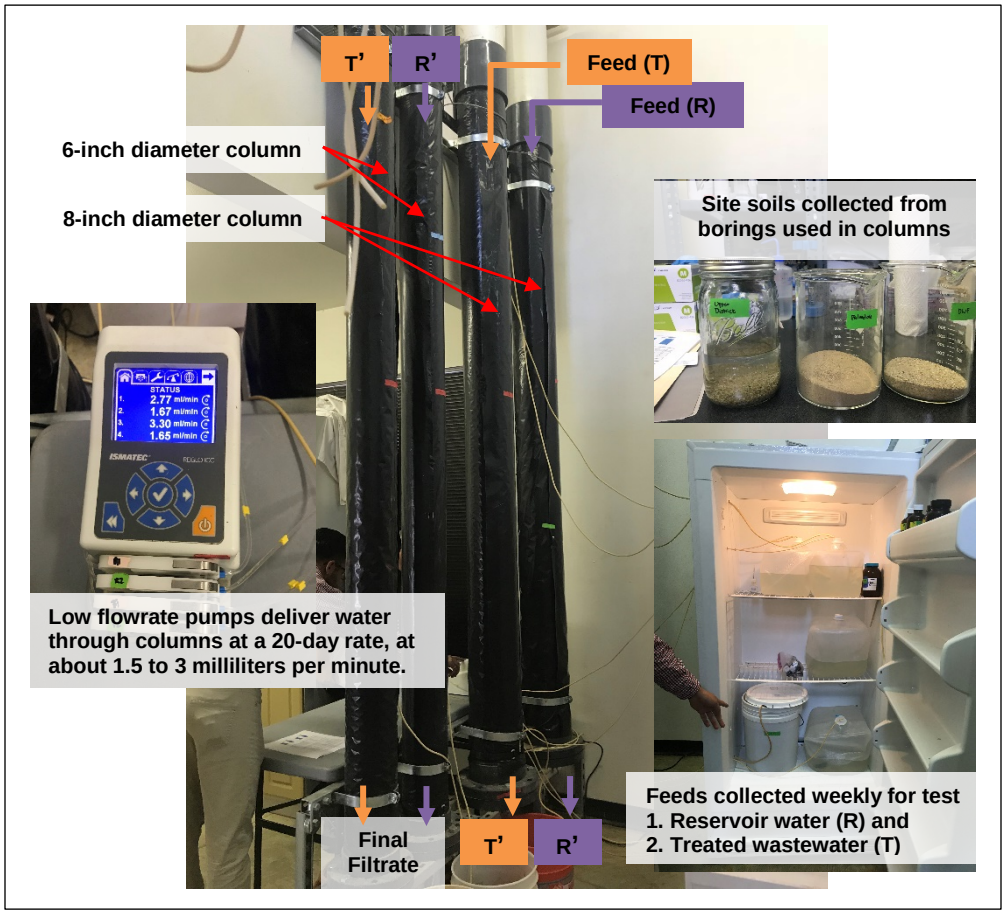

Figure 2 - Soil column pilot-scale experimental setup.

9. Elevated Total Dissolved Solids Near Lancaster Wastewater Storage Reservoirs – *Sergio Alonso*

The Sanitation Districts of Los Angeles County, District 14, operates the Lancaster Water Reclamation Plant that has elevated concentrations of total dissolved solids (TDS) in compliance wells near the lined storage reservoirs. Groundwater monitoring wells were installed to monitor leakage from lined storage reservoirs. It appears that increasing TDS concentrations in the monitoring wells adjacent to the lined storage reservoirs may represent impacted groundwater migrating from south to northwest from beneath the unlined former oxidation ponds that are no longer used.

The layout of the Lancaster facility has changed substantially since the plant began operations in 1958. Initially, the plant used only unlined oxidation ponds, and it wasn't until 2010 that four additional lined storage reservoirs were installed north of the original unlined oxidation ponds. Figure 1 shows the lined storage reservoirs located north of the unused, unlined oxidation ponds.

In 2006, the Water Board required establishing TDS "thresholds" in groundwater at four compliance groundwater monitoring wells surrounding the lined storage reservoirs; the monitoring well locations are outlined in yellow on Figure 1. The purpose of the threshold values is to provide a warning for increases in groundwater TDS concentrations that may indicate the lined storage reservoirs are leaking, which triggers the District to take appropriate corrective actions to address the increased TDS concentration in the monitoring well. By the end of 2012, use of the old oxidation ponds had ceased. Monitoring wells installed near the old oxidation ponds, shown in green in Figure 1, have historically had higher TDS concentrations than the compliance wells. Since adoption of the Board Order, the TDS concentrations in the compliance wells near the lined storage reservoirs have been increasing.

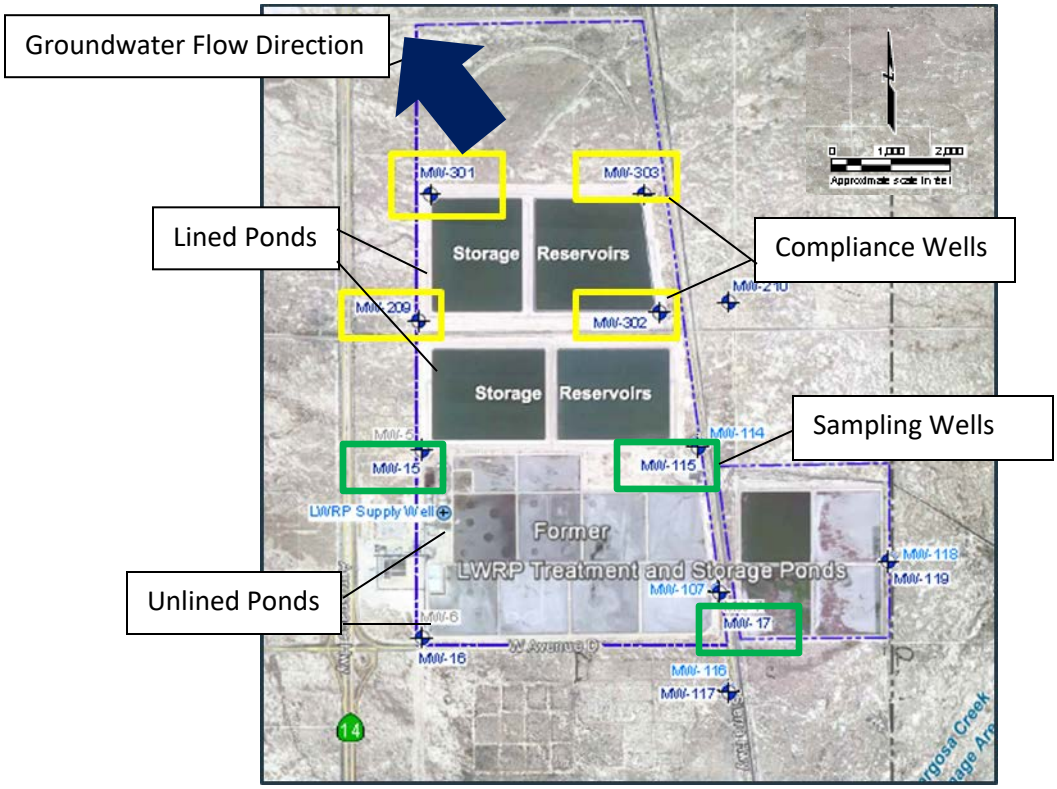

Figure 1 – Map showing District 14, Lancaster Water Reclamation Plant. Former unlined oxidation ponds are east of treatment facilities that are adjacent to Highway 14. Lined storage reservoirs are located to the north. Compliance groundwater monitoring.

From 1958 to December 2012, percolating water from the unlined oxidation ponds resulted in perched groundwater above the upper aquifer beneath the unlined oxidation ponds. Since December 2012 to the present, groundwater beneath the old unlined oxidation ponds has migrated northwest beneath the lined storage reservoirs.

Given the increased TDS concentrations at the compliance wells, Water Board staff asked if the cause of increasing TDS concentrations could be leakage from the lined storage reservoirs. After testing confirmed the liner integrity of the storage reservoirs, the District's staff and their consultants stated that the increasing TDS concentration trends at the compliance wells was likely from the migration of poor-quality groundwater with elevated TDS levels from beneath the old oxidation ponds to the area beneath the lined storage reservoirs.

The District is preparing a site assessment technical report to evaluate remedial (or control) options for the site and will propose an alternative monitoring approach to monitor pond leakage. The method to determine threshold levels in the compliance wells specified in the Board Order may have to be revised. The technical report should address the cause of elevated TDS concentrations, plan to monitor the lined storage reservoirs for leakage, and the quantification of the extent of groundwater pollution. Water Board staff will review and comment on the District's technical report when submitted.

10. Rosamond Community Services District (CSD) Planned Facility Upgrades – *Sergio Alonso*

On September 6, 2018, Water Board staff met with Rosamond CSD (District) management and their consultants to discuss proposed upgrades to the wastewater treatment facility. In recent years, leaking evaporation/oxidation ponds have decreased the quality of groundwater beneath these unlined ponds. The Water Board required the District to evaluate options for upgrading the

wastewater treatment facility to mitigate the ongoing groundwater pollution and complete construction by November 5, 2020.

Alternatives considered by the District ranged from different types of pond liners to a wetlands system. However, the District has decided to upgrade its existing wastewater treatment plant and percolate treated water to groundwater. Figure 1 shows the District's existing plant layout

and areas where planned changes may occur. The existing unlined oxidation/evaporation ponds will be taken out of service. During the meeting, the District introduced its final Conceptual Design Report, written by Kennedy/Jenks Consultants.

The District has an existing small 0.5 million gallon per day (MGD) tertiary treatment plant that has not been in use since mid-2015, due to a lack of recycled water customers. Since that time, the grit removal system, Biolac treatment basin, and secondary clarifier equipment have

Figure 1 – Rosamond CSD wastewater treatment plant site area outlined in yellow, existing oxidation/evaporation ponds outlined in red, planned area of existing and new facilities outlined in blue, and existing Pond 17 outlined in green that is planned for conversion to three percolation ponds.

remained unused. Biolac aeration basins control the air distribution within a basin by creating waves of oxic and anoxic zones. This allows wastewater to nitrify and denitrify without recycled pumping of mixed liquor or additional external basins. Biolac aeration basins are used successfully at the Adelanto Wastewater Treatment Plant. The District proposes to re-start these components and add newly-built facilities to provide de-nitrified, undisinfected secondary effluent that will be discharged to three percolation ponds constructed within existing Pond 17 for disposal, as outlined in green on Figure 1.

The 0.5 MGD plant will be expanded to 1.27 MGD by adding a second Biolac aeration basin system and secondary clarifier. The six existing sludge drying beds, shown in the southeast corner of the blue outlined area in Figure 1, will be increased to 12. The existing Biolac basin design flow will treat 0.35 MGD while the new Biolac basin will treat 0.92 MGD. The existing clarifier has a diameter of 45 feet and the new clarifier will have a 60-foot diameter. A new 90,000-gallon aerated and lined septage receiving pond will be constructed. Because the proposed upgrades to the facility will be larger than the existing equipment, the facility will use a 25/75 percentage split in flow between the existing and the new equipment.

The Conceptual Design Report indicates the facility will provide the following average effluent quality.

Table 1: Rosamond CSD Expected Effluent Quality

Item	Value (mg/L)
Biochemical Oxygen Demand (BOD)	20
Total Suspended Solids	20
pH Range (Minimum to Maximum)	6.5-8.5
Total Nitrogen	8
Ammonia-Nitrogen	<1

Final proposed effluent limitations will depend on groundwater quality background investigations conducted to complete the antidegradation analysis to satisfy State Water Resources Control Board Resolution 68-16 (Statement of Policy with Respect to Maintaining High Quality of Waters in California).

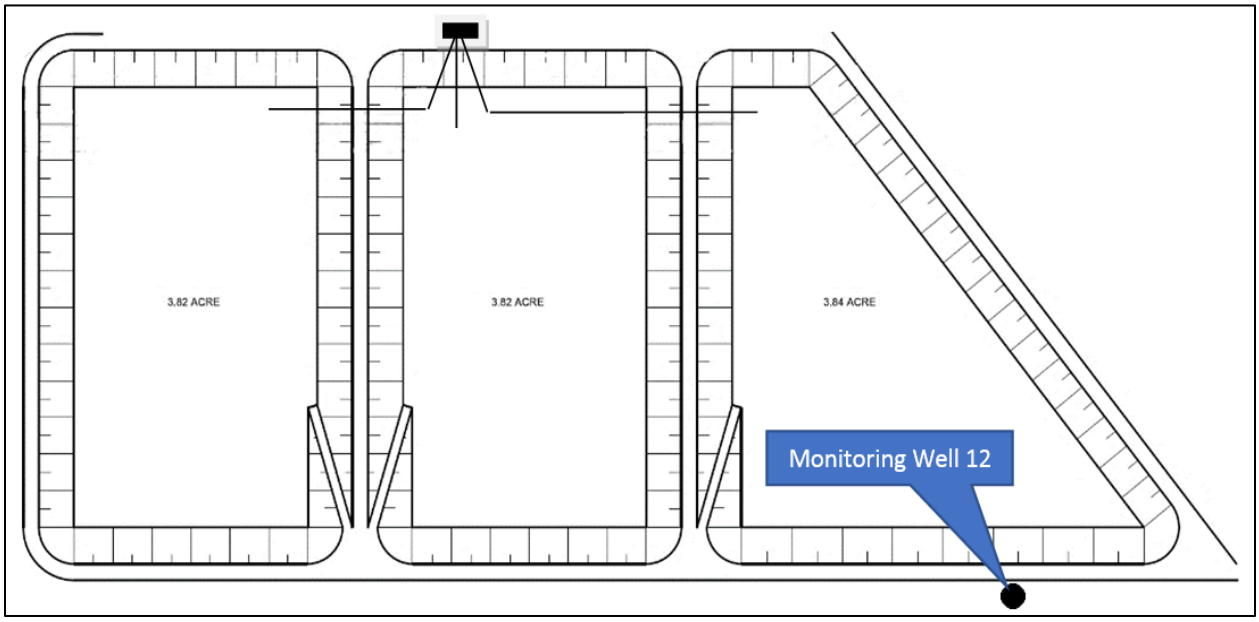

Figure 2 – Existing Pond 17 will be restructured, as shown here, into three percolation ponds to receive de-nitrified, undisinfected secondary effluent.

Existing Pond 17, shown in Figure 2, will be converted into three percolation ponds that will receive the de-nitrified, undisinfected secondary effluent. The District has constructed a one-acre infiltration test basin in the southeast corner of Pond 17 to evaluate the site's ability to percolate effluent. Additional testing during a three-month period from October 2018 to January 2019 will evaluate the ability of this location to successfully percolate effluent. The existing 0.5 MGD plant will be turned back online in fall 2018 to supply denitrified secondary effluent for the duration of the infiltration test.

The District's goal to complete construction by the 2020 deadline remains intact. The District intends to complete a California Environmental Quality Act (CEQA) document on the proposed upgrades by early 2019. Water Board staff has requested that the District submit a Revised Report of Waste Discharge at least 140 days before the new plant becomes operational, as specified in the Water Code. The projected cost for upgrades is about $9,600,000.

Water Board staff will be working with the District to determine if changes to the permit or a new permit is the best path forward because of the magnitude of the wastewater treatment process changes proposed. Eliminating the leaking evaporation/oxidation ponds from service shifts the

nature of the discharge from contributing towards groundwater pollution through leakage to ensuring the highest effluent quality is produced through treatment.

11. Comments on a Notice of Preparation of a Draft Environmental Impact Report for the Mono County Ranch Lease Renewal Project, Mono County, Los Angeles Department of Water and Power – *Jan Zimmerman*

Lahontan Regional Water Quality Control Board (Water Board) staff received a Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) for the Mono County Ranch Lease Renewal Project (Project) on August 17, 2018. The NOP, which included an abbreviated Project description and regional map, was prepared by the Los Angeles Department of Water and Power (LADWP) and submitted in compliance with provisions of the California Environmental Quality Act (CEQA). The proposed Project is for LADWP to enter into new lease agreements with ten ranches in Mono County for which the existing ranch leases have since expired. It is our understanding that the new lease agreements would curtail water allotments from what had been provided historically and provide for LADWP to spread water deliveries to those ranches for operational purposes only, a significant reduction in what had been provided under the previous lease agreements. Water in excess of what would be necessary to support the operational need of any given ranch will then be diverted to the Los Angeles Aqueduct System.

In a letter dated October 16, 2018, Water Board staff, acting as a responsible agency, provided comments on the NOP to specify the scope and content of the environmental information germane to our statutory responsibilities pursuant to CEQA Guidelines, California Code of Regulations, title 14, section 15096. We recommended that a number of elements be included in the environmental review, particularly as they relate to establishing the environmental baseline and evaluating potential impacts to water quality and hydrology. We also encouraged LADWP to take a proactive role in avoiding potentially significant adverse impacts to wetland waters and associated habitats by evaluating a range of Project alternatives that avoid or minimize, to the extent practical, impacts to these resources. Our specific comments on the NOP are attached.

12. Standing Item – PG & E Hinkley – *Lisa Dernbach*

Status of Actions
PG&E Hinkley Chromium Contamination
November 2018

Changes of Cleanup and Abatement Order (CAO) Remedial Actions

PG&E submitted a September 26, 2017, document proposing to cease remedial actions in the western area chromium plume, west of Serra Road, and alter groundwater extraction operations in the Mountain View Road area, south of Santa Fe Road. The proposed modifications are in response to reducing hexavalent chromium concentrations and shrinking plume boundaries. At Water Board staff's request, PG&E submitted a Contingency Plan describing corrective actions to be taken should proposed modifications result in migration or expansion of the hexavalent chromium plume boundaries.

Changes in remedial actions required in the 2015 CAO (Board Order R6V-2015-0068) must be authorized by the Water Board's Executive Officer. Water Board staff issued a February 20, 2018 letter requesting public review and comment of the proposed modifications to be submitted by March 21, 2018. No comments were received by the due date. The Water Board Executive Officer, Patty Kouyoumdjian, accepted PG&E's proposal in a letter dated July 25, 2018. Water Board staff will review quarterly hydraulic capture monitoring reports to verify that plume containment continues to be achieved in the western area.

Chromium Plume Boundary

The 2nd quarter 2018 chromium plume map is posted on the Water Board's Hinkley website at: http://www.waterboards.ca.gov/lahontan/water_issues/projects/pge/index.shtml, at the bottom of the page under the section titled “Other Documents and Information.” The third quarter 2018 plume map is due on November 10, 2018, consistent with the reporting due dates contained in the CAO.

Mitigation of Potential Groundwater Impacts

The 2013 Environmental Impact Report (EIR) listed different strategies available to PG&E to implement for mitigating potential impacts to groundwater from its remedial actions. On February 23, 2018, PG&E submitted the document, “Final Technical Memorandum Describing Proposed Mitigation Measure WTR-MM-4.” The document presents a proposal for mitigation of potential groundwater quality impacts (nitrate and total dissolved solids or TDS) that could result from operations of PG&E’s two southern agricultural fields, Community East and Fairview, used for remediation of hexavalent and total chromium in groundwater at the PG&E Hinkley Compressor Station. PG&E offered to fallow an alfalfa field off Dixie Road that previously received dairy wastewater containing high levels of nitrate and TDS. By ceasing dairy wastewater discharges (from reductions in the dairy herd) and letting the field go fallow, groundwater quality below the field is expected to improve over time. This reduction in nitrate and TDS to the Hinkley aquifer is expected to offset potential nitrate or TDS impacts to groundwater generated at the Community East and Fairview fields. This mitigation approach of swapping one field for another field or fields is referred to as “Farm Swap.”

The Water Board’s Executive Officer accepted PG&E’s proposal in a September 17, 2018 letter, stating it meets the conditions for mitigation of potential impacts to groundwater from PG&E’s operation of the two southern agricultural fields. The reporting program for this mitigation measure will be in annual EIR mitigation monitoring reports, due by February 20th of each year.

Other Remedial Actions

PG&E has been aware of increasing chromium concentrations in certain monitoring wells located in the southern and southeastern portion of the chromium plume. In a July 13, 2018 workplan, PG&E proposed to install off-site piezometers and on-site extraction wells to better understand groundwater flow and improve hydraulic containment. Data from the new wells will be used to evaluate if the groundwater flow direction is changing on a regional scale due to drought conditions or from pumping at agricultural wells for the two fields located north of the compressor station.

Water Board staff accepted PG&E’s recommendation and tasks in a September 24, 2018 letter. Water Board staff also stated concern that the chromium plume may no longer be adequately defined by monitoring wells along the southeastern boundary. The letter requested that PG&E propose additional monitoring wells to better define the boundary out to 3.1 µg/L Cr(VI) and 3.2 µg/L Cr(T) or provide reasoning why new monitoring wells are not needed, pursuant to the CAO.

Domestic Well Destruction

PG&E submitted an August 31, 2018 letter requesting to destroy 48 inactive domestic wells located on PG&E-owned property: 30 wells located north of Salinas Road, 10 wells located east of Summerset Road, and 8 wells recently found on PG&E properties and/or on properties recently purchased by PG&E. The selected wells are screened across the upper aquifer. PG&E proposed to destroy these inactive domestic wells in accordance with State of California Well

Standards and San Bernardino County requirements. Project Navigator staff stated they had no objections to PG&E's plans for well destruction. Based on the information provided and comments received, Water Board staff accepted PG&E's proposal for well destruction on October 10, 2018.

Chromium Background Study

Data interpretation and final report writing continue to be the focus of Dr. Izbicki's current efforts. A Technical Working Group (TWG) meeting was held in Hinkley on August 16, 2018, to discuss the summative scale analysis used to estimate the plume extent (see the USGS mid-term Background Study Report for details, available at: https://www.waterboards.ca.gov/lahontan/water_issues/projects/pge/). Several web-based meetings with the TWG and PG&E's staff and consultants have continued to facilitate progress on PG&E's updates to the groundwater flow model to be used in the background study as part of Task 5. Particle-tracking simulations using the updated PG&E groundwater flow model are expected to occur this coming quarter. These simulations include forward tracking of the movement of recharge water from the Mojave River. These results will be compared with age-dating results from Task 3 to assess the appropriateness of model hydraulic properties and input.