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

**MEETING OF MARCH 9-10, 2022**
**VIDEO/TELECONFERENCE**

| **ITEM 4** |
|---|
| **EXECUTIVE OFFICER'S REPORT** |

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# ENCLOSURE 1


**EXECUTIVE OFFICER'S REPORT**
December 1, 2021 – December 31, 2021

## Contents



## *State and Regional*

### 1. Personnel Report – *Sandra Lopez*

**New Hires** – None

**Vacancies**

- Environmental Scientist, Non-Point Source Unit, South Lake Tahoe. This position will coordinate closely with interagency partners and the Tahoe Science Advisory Council to assess Lake Tahoe nearshore conditions and other factors influencing Lake Tahoe water quality and clarity, and aquatic invasive species. The incumbent will also help identify outstanding information needs for future work and coordinate applicable implementation actions, including those associated with implementation of the Lake Tahoe TMDL.
- Senior Engineering Geologist (Specialist), Leviathan Mine, South Lake Tahoe. This position will evaluate and provide advice to Water Board management regarding the Water Board's cleanup and abatement actions needed at the Leviathan Mine to comply with the USEPA's Administrative Abatement Action Order.
- Water Resource Control Engineer, Forestry / Dredge & Fill Unit, South Lake Tahoe. This position reviews and inspects U.S. Forest Service timber harvest and vegetation management, and/or ecological restoration projects.

- Engineering Geologist, Cleanup/Site Investigation & Enforcement Unit, South Lake Tahoe. This position will oversee/direct site investigation and cleanup activities at various sites, such as underground storage tank sites, dry cleaner sites, mines, landfills, and Department of Defense sites.
- Senior Water Resource Control Engineer, Wastewater and Agriculture Unit, Victorville. This position will supervise staff performing tasks related to existing, new, expanded, and improved wastewater treatment and disposal facilities, onsite wastewater treatment systems and septic systems, dairies, heifer ranches, stormwater, and site cleanup program sites.
- Scientific Aid, Wastewater and Agriculture Unit, Victorville. This position supports staff primarily though review of submitted self-monitoring reports, along with other special projects.

**Departures**

- Anne Holden, Environmental Scientist, Non-Point Source Unit, South Lake Tahoe
- John Steude, Engineering Geologist, Cleanup/Site Investigation & Enforcement Unit, South Lake Tahoe
- Tom Gavigan, Engineering Geologist, Forestry / Dredge & Fill Unit, South Lake Tahoe

*North Lahontan Region*

**2. Update on Regional Tetrachloroethene (PCE) Groundwater Contamination in South "Y" Area of South Lake Tahoe, January 2022** – *Abby Cazier*

The purpose of this article is to provide you with an update on the Site Cleanup Subaccount Program (SCAP) South Y Regional Tetrachloroethylene (PCE) Plume Investigation (Regional PCE Plume Investigation) activities that have occurred since the last EO Report update from October of 2020.The SCAP Regional PCE Plume Investigation activities were completed by the State Water Resources Control Board's contractor, AECOM, and AECOM's subcontractors with oversight from Lahontan Water Board staff. The SCAP Regional PCE Plume Investigation activities completed during 2021 included the installation, development, and sampling of nine sentry wells for 1) the Lukins Brothers Water Company (LBWC) well No. 1 (LBWC #1; three wells total) and well No. 5 (LBWC #5; two wells total) and 2) Tahoe Keys Water Company (TKWC) wells No. 1 (TKWC #1; two wells total) and well No. 2 (TKWC #2; two wells total). The purpose of sentry well installation and monitoring is to provide water purveyors advance warning of potential PCE migration upgradient from water supply wells.

The siting and design of the sentry wells for LBWC #1, LBWC #5, TKWC #1, and TKWC #2 was based on lithology and PCE groundwater data from the Regional Plume Characterization Investigation completed during 2019 and 2020 which included the advancement of 79 cone-penetration test (CPT) and sonic borings. The sentry well locations and the approximate lateral extent of PCE concentrations exceeding the

California Maximum Contaminant Level (MCL) of 5 micrograms per liter (µg/L) are shown on Figure 2.1. The rationale for the sentry wells installed for LBWC #1, LBWC #5, TKWC #1, and TKWC #2 are described below.

**LBWC #1** is located near the northwestern PCE plume edge and is LBWC's only operational municipal supply well without wellhead treatment (four out of their five wells have been impaired due to the PCE groundwater contamination and three of their five wells have been removed from service [destroyed]). PCE has not been detected above the laboratory method detection limit in LBWC #1. Three sentry wells, LBWC1-SW-1, LBWC1-SW-2, and LBWC1-SW-3 were installed to monitor the PCE concentrations at depths above or within the well screen interval of LBWC #1 (Figure 2.1).

**LBWC #5** is located at the northern PCE plume edge and was taken off-line in July 2014 when PCE was first detected above the MCL. PCE was detected at LBWC #5 at a concentration of 64 µg/L in 2020. As of July 2021, the well is back online following the installation of a granular activated carbon treatment system. LBWC5-SW-1 was designed to monitor the high concentrations of PCE detected during 2020 drilling activities. LBWC5-SW-2 was designed to monitoring PCE concentrations within the well screen interval of LBWC #5. (Figure 2.1).

**TKWC #1** is located at the northeastern PCE plume edge and is impacted by PCE contamination. In 2016, PCE was detected at a maximum concentration of 4 µg/L in TKWC #1. The migration of the PCE plume towards TKWC #1 may result in PCE concentrations that exceed the MCL of 5 µg/L and would affect well operation (e.g., the well may be taken off-line or require wellhead treatment). TKWC1-SW-1 was designed to monitor the PCE where the maximum concentration of PCE was detected above the TKWC#1 well screen interval. TKWC1-SW-2 was designed to monitor the PCE concentrations within the well screen interval of TKWC #1. (Figure 2.1).

**TKWC #2** is located at the northwestern PCE plume edge, is impaired by PCE contamination, and has been operating with a granular activated carbon treatment system since 2012. The maximum PCE concentration detected in TKWC #2 was 31 µg/L in May 2020. PCE concentrations detected in TKWC #2 continue to increase and TKWC is concerned that if wellhead treatment system influent concentrations exceed 50 µg/L, the drinking water source will be defined by the State Water Resources Control Board Division of Drinking Water as an extremely impaired source of drinking water. This would require additional monitoring and treatment system backup requirements, which would increase the cost to operate and maintain the wellhead treatment system. TKWC2-SW-1 and TKWC2-SW-2 were installed to monitor the PCE concentrations upgradient from TKWC #2 at depths that corresponded to TKWC #2 top screen interval (Figure 2.1).

Following sentry well installation in July and August of 2021, the wells were developed, surveyed, and sampled for volatile organic compounds (VOC) including PCE. Groundwater samples were collected from the nine sentry wells using passive diffusion bags (PDBs) installed on September 24, 2021, and removed from the wells between October 19 and October 20, 2021. Two of the nine wells were sampled using the low-flow purge sampling method immediately after the PDBs were removed to confirm the

sampling methods yield similar analytical results and validate the future use of PDBs for sentry well groundwater sampling events.

The sentry well PCE groundwater sampling results (including low-flow purge sampling results for TKWC2-SW-1 and LBWC5-SW-1 and duplicate sampling results for TKWC1-SW-1) are shown on the draft site map provided as Figure 2.2 (note, the concentration contours on Figure 2.1 have not been updated with the new Sentry Well data). The Semi-Annual Sentry Well Groundwater Monitoring Report is pending and will be uploaded to GeoTracker as soon as it becomes available.

**Anticipated SCAP Tasks for 2022**

The anticipated SCAP field tasks that will be completed during the 2022 field season include:

- Continue to develop a private and small-community water supply well inventory to identify additional supply wells to be sampled to ensure the water supply wells are providing water that is safe for human consumption.
- Conduct a soil gas investigation to evaluate the potential human health risks associated with potential soil vapor intrusion resulting from the PCE contamination. Soil gas samples will be collected downgradient from suspected source areas in locations where elevated concentrations of PCE have been detected in shallow groundwater. A Tier I human health risk evaluation will be conducted using the soil gas analytical data.
- Properly destroy priority municipal, private, and small-community water supply wells that have been identified as a vertical conduit(s) (e.g., responsible for the vertical migration of PCE in groundwater impacting deeper water-bearing unit[s]). Inactive wells, including monitoring wells installed for site-specific investigations, that have not been properly destroyed are included in the evaluation.
- Conduct two sentry well semi-annual groundwater monitoring events.

**Interested in More Information?**

Additional information on the SCAP Regional PCE Plume Investigation activities, including AECOM's *Sentry Well Installation and Sampling Work* dated July 13, 2021, *Sentry Well Installation Report* dated December 23, 2021, 2019 and 2020 CPT and sonic boring logs, analytical data from the Regional PCE Plume Investigation, and sentry well construction logs can be found on GeoTracker at https://geotracker.waterboards.ca.gov/profile_report?global_id=T10000007984.

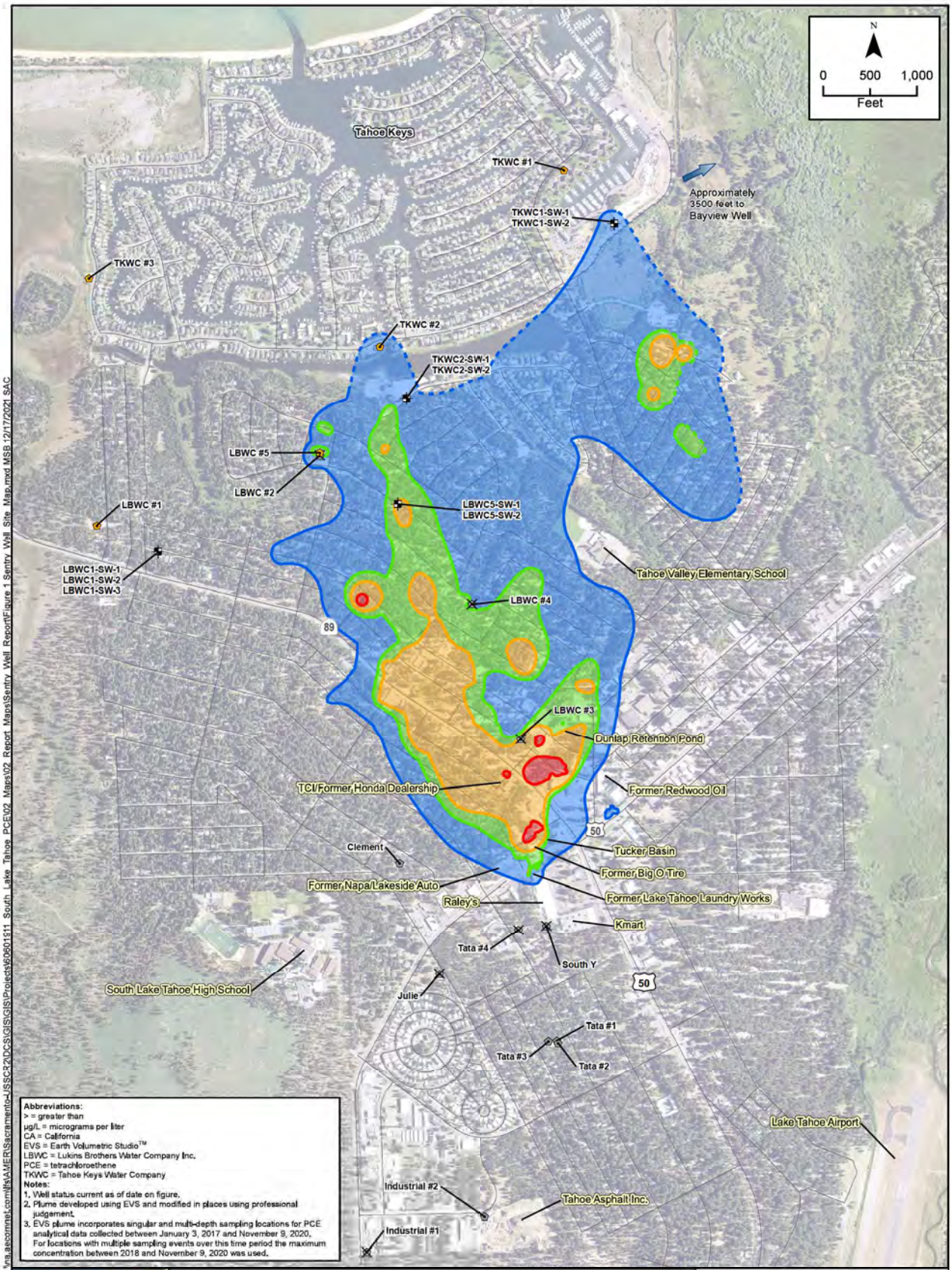


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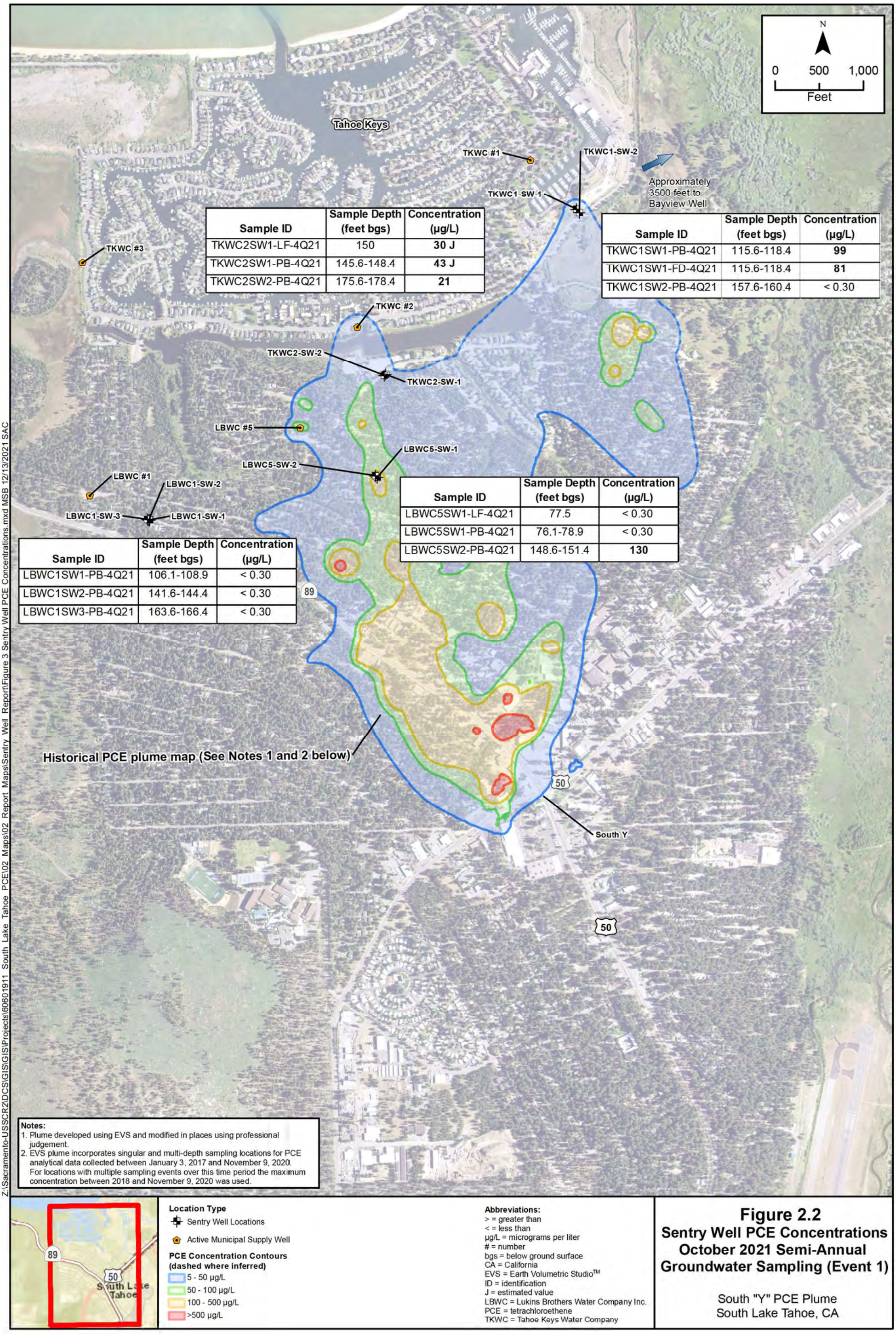
**Figure 2.1**
**Sentry Well Location Map**

South "Y" PCE Plume
South Lake Tahoe, CA




| Sample ID | Sample Depth (feet bgs) | Concentration (µg/L) |
|---|---|---|
| TKWC2SW1-LF-4Q21 | 150 | **30 J** |
| TKWC2SW1-PB-4Q21 | 145.6-148.4 | **43 J** |
| TKWC2SW2-PB-4Q21 | 175.6-178.4 | **21** |

| Sample ID | Sample Depth (feet bgs) | Concentration (µg/L) |
|---|---|---|
| TKWC1SW1-PB-4Q21 | 115.6-118.4 | **99** |
| TKWC1SW1-FD-4Q21 | 115.6-118.4 | **81** |
| TKWC1SW2-PB-4Q21 | 157.6-160.4 | < 0.30 |

| Sample ID | Sample Depth (feet bgs) | Concentration (µg/L) |
|---|---|---|
| LBWC5SW1-LF-4Q21 | 77.5 | < 0.30 |
| LBWC5SW1-PB-4Q21 | 76.1-78.9 | < 0.30 |
| LBWC5SW2-PB-4Q21 | 148.6-151.4 | **130** |

| Sample ID | Sample Depth (feet bgs) | Concentration (µg/L) |
|---|---|---|
| LBWC1SW1-PB-4Q21 | 106.1-108.9 | < 0.30 |
| LBWC1SW2-PB-4Q21 | 141.6-144.4 | < 0.30 |
| LBWC1SW3-PB-4Q21 | 163.6-166.4 | < 0.30 |

**Notes:**
1. Plume developed using EVS and modified in places using professional judgement.
2. EVS plume incorporates singular and multi-depth sampling locations for PCE analytical data collected between January 3, 2017 and November 9, 2020. For locations with multiple sampling events over this time period the maximum concentration between 2018 and November 9, 2020 was used.




**Location Type**
- Sentry Well Locations
- Active Municipal Supply Well

**PCE Concentration Contours (dashed where inferred)**
- 5 - 50 µg/L
- 50 - 100 µg/L
- 100 - 500 µg/L
- >500 µg/L

**Abbreviations:**
> = greater than
< = less than
µg/L = micrograms per liter
# = number
bgs = below ground surface
CA = California
EVS = Earth Volumetric Studio™
ID = identification
J = estimated value
LBWC = Lukins Brothers Water Company Inc.
PCE = tetrachloroethene
TKWC = Tahoe Keys Water Company

# Figure 2.2
## Sentry Well PCE Concentrations October 2021 Semi-Annual Groundwater Sampling (Event 1)

South "Y" PCE Plume
South Lake Tahoe, CA

Z:\Sacramento-USSCR2\DCS\GIS\GIS\Projects\60601911 South Lake Tahoe PCE\02 Maps\02 Report Maps\Sentry Well Report\Figure 3 Sentry Well PCE Concentrations.mxd MSB 12/13/2021 SAC

**3. Bear Valley Cleaners, Neighborhood Canvassing Event** – *Shelby Barker*

Bear Valley Cleaners is a commercial dry-cleaning facility located at 16200 Bear Valley Road in the City of Victorville within the Renaissance Shopping Center. Tetrachloroethene (PCE) has been detected in soil vapor at the site to a depth of

300 feet below ground surface (bgs). Additionally, PCE has been detected in soil vapor at adjacent businesses located in the shopping center and in the residential neighborhood to the north (Tokay Street). PCE has not been detected in groundwater during the last groundwater sampling event in April 2021.

Due to health-risk concerns associated with indoor air exposure to PCE vapors for the residential homes on Tokay Street, the Water Board is requiring the Bear Valley Cleaners responsible party (The Woodmont Company, the appointed receiver for the property owner of Renaissance Shopping Center) to perform indoor air sampling for seven of the homes located on Tokay Street (Figure 3.1). Fact sheets regarding the environmental investigation as well as vapor intrusion risks and indoor air sampling procedures were prepared in coordination with the State Water Resources Control Board, Office of Public Participation. Because of a limited response from residents during previous canvassing events in June 2021, Water Board staff Jan Zimmerman and Shelby Barker reached out to San Bernardino County Fire Department, Hazardous Materials Division, and the City of Victorville for outreach assistance.

On Wednesday evening, December 1, 2021, Jan Zimmerman and Shelby Barker were joined by Mr. Peter Saavedra with San Bernardino County Fire Department and

Mr. Frank Estrada with the City of Victorville Water Department to knock on doors at seven homes on Tokay Street. With their assistance, Water Board staff were able to make personal contact with five of the seven homeowners and/or tenants and provide them with the fact sheets and inform them that a representative of The Woodmont Company would be contacting them to obtain access to their property/residence for indoor air sampling. One of the seven homes was vacant. Over the following two days, Shelby Barker was able to speak with all remaining homeowners and/or tenants with exception of the homeowner for the vacant residence. The fact sheets were mailed to that homeowner's mailing address on December 2, 2021.

Later in December 2021, Water Board staff received and responded to the draft access agreement provided by The Woodmont Company. The Woodmont Company sent out the access agreements to all homeowners and tenants via certified mail on

December 22, 2021. The vapor intrusion field work is tentatively scheduled to commence during the third week of January 2022.


Bear Valley Cleaners
Residential Homes for Vapor Intrusion Sampling

Image Source: Google Earth Pro

Figure 3.1: Site Vicinity Map

# ATTACHMENT A

UNAUTHORIZED DISCHARGE REPORT
DECEMBER 1, 2021 TO DECEMBER 31, 2021

| Responsible Party | Location of Occurrence | Regulated Facility | Basin N/S | Date of Occurrence | Volume of Occurrence | Violation Description | Comments | Status |
|---|---|---|---|---|---|---|---|---|
| **County of San Bernardino** | | | | | | | | |
| CH2M Hill | Fort Irwin | Yes | S | 12/15/2021 | 20,000 | Clogged sewer improper disposal of material in sewer --Ammo, grease, sand, rags, clothing, tools etc. | Spill report requested | Vacuum truck used to collect as much sewage as possible and a 16 foot section of sewer line replaced |

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

# ATTACHMENT B

# EXECUTIVE OFFICER ACTION ITEMS

December 1, 2021, to December 31, 2021
Lahontan Regional Water Quality Control Board

| DOCUMENT | DATE |
|---|---|
| NO FURTHER ACTION REQUIRED[1] | |
| NONE | N/A |
| EXEMPTIONS | |
| Pending Action for Board Order No. R6T-2021-XXXX, Clean Water Act Section 401 Water Quality Certification and Exemption to Waste Discharge Prohibitions for the Thompson El Al Multi Parcel Pier Construction Project, Placer County | 12/02/2021 |
| Pending Action for Notice of Applicability and Exemption to Waste Discharge Prohibition 4.1-16 1 & 2 for the Latimer Pier Rebuild Project, Nevada County | 12/29/2021 |
| EXTENSIONS | |
| NONE | N/A |
| ADOPTED BOARD ORDERS | |
| NONE | N/A |
| 401 WATER QUALITY CERTIFICATIONS | |
| Board Order No. R6V-2021-0037, Granting Clean Water Act Section 401 Water Quality Certification, Rimforest Storm Drain Project, San Bernardino County | 12/13/2021 |

[1] 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.

| DOCUMENT | DATE |
|---|---|

WASTE DISCHARGE REQUIREMENTS

| | |
|---|---|
| Notice of Applicability for State Water Resources Control Board Order WQ 2020-0004-DWQ, General Waste Discharge Requirements for Disaster-Related Wastes, Antelope Valley Public Landfill and Recycling Center, Los Angeles County | 12/13/2021 |
| Notice of Applicability for General Waste Discharge Requirements for Small Construction, Including Utility, Public Works, and Minor Streambed/Lakebed Alteration Projects | 12/23/2021 |
| 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, Davis Pier Rebuild, Nevada County | 12/29/2021 |

MISCELLANEOUS DOCUMENTS

| | |
|---|---|
| Creekside Development Project NOA_6B362104001 | 12/22/2021 |

Additional links:
General Policy information
Copy of Policy
Implementation Plan

# ENCLOSURE 2


**EXECUTIVE OFFICER'S REPORT**
January 1, 2022 – January 31, 2022

## Contents



## 1. Personnel Report – *Sandra Lopez*

### New Hires

- Melissa Thaw, Environmental Scientist, Non-Point Source Unit, South Lake Tahoe. This position will coordinate closely with interagency partners and the Tahoe Science Advisory Council to assess Lake Tahoe nearshore conditions and other factors influencing Lake Tahoe water quality and clarity, and aquatic invasive species.

### Vacancies

- Engineering Geologist, Non-Point Source Unit, South Lake Tahoe. This position will assist with technical, regulatory, and administrative procedures related to review of project environmental disclosure and permitting documents.

- Senior Engineering Geologist (Specialist), Leviathan Mine, South Lake Tahoe. This position will evaluate and provide advice to Water Board management regarding the Water Board's cleanup and abatement actions needed at the Leviathan Mine to comply with the USEPA's Administrative Abatement Action Order.

- Water Resource Control Engineer, Forestry / Dredge & Fill Unit, South Lake Tahoe. This position reviews and inspects U.S. Forest Service timber harvest and vegetation management, and/or ecological restoration projects.

- Engineering Geologist, Forestry / Dredge & Fill Unit, South Lake Tahoe. This position will review timber harvest plans and conducting pre-harvest and post-harvest field inspections in order to evaluate the impact of logging operations and other forest practices (e.g., vegetation management for utility corridors) on the quality and beneficial uses of water.

- Engineering Geologist, Cleanup/Site Investigation & Enforcement Unit, South Lake Tahoe. This position will oversee/direct site investigation and cleanup activities at various sites, such as underground storage tank sites, dry cleaner sites, mines, landfills, and Department of Defense sites.

- Scientific Aid, Regulatory & Enforcement Unit, South Lake Tahoe. This position supports staff primarily though review of submitted self-monitoring reports, along with other special projects.

- Scientific Aid, Forestry/Dredge & Fill and Non-Point Source Units, South Lake Tahoe. This position will evaluate water quality data and assess compliance with water quality orders and permits associated with grazing, restoration, timber, and forestry activities.

- Senior Water Resource Control Engineer, Wastewater and Agriculture Unit, Victorville. This position will supervise staff performing tasks related to existing, new, expanded, and improved wastewater treatment and disposal facilities, onsite wastewater treatment systems and septic systems, dairies, heifer ranches, stormwater, and site cleanup program sites.

- Scientific Aid, Wastewater and Agriculture Unit, Victorville. This position supports staff primarily though review of submitted self-monitoring reports, along with other special projects.

**Departures**

- Michael Suglian, Scientific Aid, Regulatory & Enforcement Unit, South Lake Tahoe

**2. Lake Tahoe Water Quality Update** – *Mary Fiore-Wagner and Melissa Thaw*

The Water Board continues to invest in research and monitoring to evaluate factors affecting Lake Tahoe's famed clarity and nearshore environment. Findings from nearshore and clarity related investigations will directly influence resource management decisions.

**Nearshore Studies**

The Water Board is currently providing more than $1 million in Senate Bill 630 (SB 630) funding that created the Lake Tahoe Science and Lake Improvement Account to support research and monitoring to investigate the complex factors that influence Lake

Tahoe's nearshore. Currently three contracts are underway to: 1) track groundwater nutrient inputs to nearshore periphyton, 2) understand the role of crayfish on the food web (algae), and 3) understand the effects of climate warming on periphyton. A fourth study, funded in part with SB 630 funds and mostly by the Water Board's discretionary contract funds, will use emerging techniques in DNA analysis to study algae species composition and ecological responses to disturbance. This project will provide a detailed nearshore algal species analysis using emerging Environmental DNA (eDNA) methods combined with traditional microscopy. Findings from this work, expected in December 2022, will identify dominant groups of algae and their role in nutrient and pollutant cycling, more specifically nitrogen fixation.

Three of the nearshore studies are nearing completion this year including the groundwater investigation through a partnership with the US Geological Survey (USGS) to track nutrient sources from groundwater to the nearshore and a study led by the University of Nevada, Reno (UNR) to assess the impacts of crayfish on algal conditions which is integral to understanding disturbances to the nearshore ecosystem. The nearshore ecosystem is also being affected by warming, which is the focus of a study in partnership with the University of California, Davis (UC Davis). This study will be complete in June 2022. Staff plan to present a broad update of the completed nearshore studies at the September 2022 meeting.

Moving forward, additional nearshore monitoring, supported in part by SB 630 funds, involves an ongoing Nearshore Human Health Assessment conducted by the Nevada Tahoe Conservation District (NTCD) which will continue through the summer of 2023. The work includes monitoring water quality parameters relevant to human health (fecal indicator bacteria) at select shoreline locations that support high public recreational use. Findings from shoreline samples collected during the summer of 2021 indicate that fecal indicating bacteria (FIB) increased since 2009. FIB concentrations were low at most sites. However, three California sampling sites, El Dorado, Regan, and Tahoe City Commons, deviated from this trend and on occasion bacteria levels exceeded standards established for recreation waters for the protection of human health. When exceedances of bacteria were reported, staff-initiated follow-up sampling at impacted areas to determine if elevated levels remained consistent and presented a public health threat. Water Board sampling that supplemented bacteria monitoring performed by NTCD indicated that high bacteria levels were not sustained. Agency staff will be considering refinements to the 2022 sampling season that focus monitoring on priority sites and capture shoreline areas where there are data gaps.

**Caldor Fire and Wildfire Smoke**

Nearly a quarter million dollars of Water Board discretionary contract funding is supporting research to (1) monitor the post-Caldor fire impacts and (2) evaluate the smoke generated from the 2021 wildfires to understand how major wildfires both in and outside of the basin influence short and long-term water quality dynamics in Lake Tahoe. Within this contract, USGS will augment on-going tributary stream monitoring to investigate any increases in tributary inputs from the Lake Tahoe sub-watersheds (Upper Truckee River and Trout Creek) impacted by the Caldor Fire.

Figure 2.1 – Wildfire smoke over Lake Tahoe. August 15, 2021

Constituents that often increase after a wildfire (dissolved organic carbon and ammonia) will also be added to the list of parameters analyzed at these monitoring stations. Additionally, samples at these locations, and a control site, will be analyzed for flame retardants which were applied during fire suppression activities within both the Upper Truckee and Trout Creek watersheds.

UC Davis is completing the wildfire smoke investigations included in the contract by analyzing particle and nutrient characteristics in both smoke deposition and water samples that were collected during the Dixie and Caldor fires. UC Davis will provide additional analyses of water quality parameters to establish changes in offshore water quality conditions due to wildfire smoke. UC Davis is on track to present the preliminary findings associated with this task in February 2022 and host a workshop on this topic in July 2022.

**Tahoe Science Advisory Council**

The Water Board has been working with the Tahoe Science Advisory Council (the Science Council) to improve monitoring and research methods and further understand processes that affect Lake Tahoe's clarity. Highlighted below is some of the Science Council's work.

Completed Report. The Science Council provided a "Summary Report on Lake Tahoe Clarity and Associated Conditions, 2021," which outlines observations of annual and

seasonal clarity, physical lake mixing, Secchi disk correlation to Cyclotella (a small diatom whose presence in the water column affects clarity). The Science Council found that annual average Secchi depth has not changed in 20 years, winter average clarity shows no trend, but summer average clarity continues to decline. The report also found that 61% of the clarity variation from 2011-2022 was associated with fine sediment particles (1-4 micrometers) and Cyclotella diatom species. However, the proportional dominance of fine sediment particles versus Cyclotella vary over time. The Science Council also found that there may be a "carry-over" effect on sediment loads in stream discharge and lake clarity following extreme precipitation events during water years 2017 and 2019.

The Summary Report also included a recommendation to advance the release of clarity data. The Science Council, in collaboration with resource agency partners, is working toward a more efficient approach to share annual clarity results in the spring of each calendar year going forward.

Improved Algal Monitoring. The Water Board has funded the University of California Davis, Tahoe Environmental Research Center (TERC) to perform attached algae (periphyton) monitoring for close to 30 years. TERC analysis of historical periphyton data has not shown increases in periphyton in the nearshore, contrary to public perception. Acknowledging that scientific findings do not align with the perception that algal growth is increasing suggests that a new monitoring design is necessary to assess nearshore health and provide for the protection of beneficial uses. In 2018 TERC provided "Suggested changes to Lahontan and Tahoe Regional Planning Agency (TRPA) Monitoring Contracts" which included suggested improvements to periphyton and algal monitoring. As a result, the Nearshore Agency Working Group (NAWG) comprised of staff from the Water Board, TRPA, Nevada Division of Environmental Protection (NDEP), and U.S. Environmental Protection Agency (EPA) engaged with the Science Council to determine the effectiveness of historic algal monitoring approaches. Consequently, the Science Council guided the Lake Tahoe Periphyton Monitoring Program Engaged Peer Review (Peer Review). The Peer Review was completed in January 2020, and reviewers concluded that sampling methods were sufficient. However, in order to address the inconsistency between public perception and sampling results, NAWG seeks to broaden and improve the algal monitoring program. Therefore, NAWG is creating a request for proposal (RFP) to develop and implement an integrated algal monitoring program to measure algal changes in taxonomic composition, abundance over time and space, and identify changes that are visually noticeable to the casual observer. The expected release date of the RFP is during the Spring of 2022.

On-going projects. The Science Council is also making progress on enhancing the Lake Clarity Model. Work has progressed on schedule and involves integrating additional physical and ecological complexities that should be understood more thoroughly since they may affect lake clarity. Improved model components and structure will be developed through multiple-stage and incremental processes to accurately include feedbacks and interactions among processes. Adding an extended food web to include several phytoplankton functional groups and zooplankton will allow the model to represent dynamic trophic feedbacks including seasonal nutrient cycling. Physical

processes such as turbulent transport, sediment resuspension and deep mixing will be incorporated and tested. The updated model will more accurately address clarity questions, simulate management scenarios, identify gaps in knowledge and analyze individual processes, which will help guide management strategies.

The Water Board values its collaboration with the Science Council which continues to help resource agencies identify and prioritize meaningful research needed to inform science-based management decisions.

**3. Victor Valley Wastewater Reclamation Authority Renewable Natural Gas Project Commissioning Ceremony** – *John Yu*

Victor Valley Wastewater Reclamation Authority (VVWRA) began construction of a Renewable Natural Gas (RNG) facility in 2016 and recently completed that construction project. A post-construction ribbon-cutting event was held on January 21, 2022, and Water Resource Control Engineer, John Yu, attended this event for the Lahontan Water Board. The event celebrated a partnership between VVWRA, Anaergia, and Southwest Gas. Figure 3.1 shows the red ribbon cutting ceremony and some of the attendees.

The RNG facility is designed to help address the requirements of SB 1383. This law requires the diversion of 75% of organic waste from the state's landfills to reduce the emission of methane into the environment and was signed into law in 2016 by Governor Jerry Brown.

Figure 3.1 – VVWRA Red Ribbon Cutting Ceremony

Anaergia designed, supplied, and installed the necessary biogas treatment upgrades for VVWRA's RNG project. VVWRA's existing infrastructure includes five anaerobic digesters that use sludge produced from their wastewater treatment process. Anaergia upgrades consisted of retrofitting VVWRA's current equipment with its high-solids Omnivore digester that uses intelligent mixing and robust thickening to triple digester capacity as well as improving biogas production to pipeline-quality RNG for injection. The added capacity provided VVWRA with the flexibility to accept food waste from the region's waste haulers, in additional to municipal wastewater.

VVWRA has become the first wastewater treatment plant in California to also export RNG to the utility gas grid. VVWRA can benefit from new revenue streams from tip fees and sales of RNG through their partnership with Southwest Gas and provide the region's gas utility additional fuel. According to Southwest Gas' President and CEO John Hester, the facility adds more than 320,000 MMBTU (one million British Thermal Units) of RNG to the pipeline each year which is enough to offset the emissions of more than 2,000 homes.

**4. Standing Item - 3rd Quarter 2021 Violations Report** - *Rob Tucker*

The Third Quarter 2021 Violations Report, at first look, appears to be an increase in violations from the previous quarter. There were approximately 63 violations identified for the third quarter 2021. However, nearly half of the violations are associated with one facility (Naval Air Weapons Station China Lake's Salt Wells Propulsion Labs Facility) and are all associated with daily flow limitation exceedances. There have been no effluent quality-related violations associated with the flow exceedances, and the U.S. Navy is requesting to work with Water Board staff to revise the facility's waste discharge requirements to increase the daily flow limitation.

The next two most frequent violation types were late reports and incomplete reports. Additional details regarding the violations that have been recorded for the third quarter 2021 can be viewed in the 3rd Quarter 2021 Violations Table.

# ATTACHMENT A

Attachment A
3rd Quarter Violations Table 2021

| Program | Priority | County | Reponsible Party | Facility | Violation Description | Corrective Action | Enforcement Action |
|---|---|---|---|---|---|---|---|
| Cannabis | B | San Bernardino | Diana Beverly Estrada | Diana Beverly Estrada Property | Unauthorized discharge from cultivation of cannabis | None | Notice of Violation |
| | | | Rafael Magana Garcia | Rafael Magana Garcia Property | Unauthorized discharge from cultivation of cannabis | None | Notice of Violation |
| | | | Herminia Vargas Padron | Herminia Vargas Padron Property | Unauthorized discharge from cultivation of cannabis | None | Notice of Violation |
| | | | Chuong Loy May Living Trust | Chuong Loy May Living Trust Property | Unauthorized discharge from cultivation of cannabis | None | Notice of Violation |
| | | | Flora Valdovinos Mendoza | Flora Valdovinos Mendoza Property | Cultivation occuring in a drainage feature of the Mojave River | None | Notice of Violation |
| Stormwater - Industrial | B | Placer County | Placer County | Placer County Eastern Regional Landfill/ Transfer Station | Deficient Best Management Practices Implemented | None | Staff Enforcement Letter |
| Stormwater - Construction | B | Placer County | Palisades Development LLC | Palisades at Squaw | No Training and failure to have SWPPP and Spill plans on time | None | Staff Enforcement Letter |
| | | Nevada County | Town of Truckee | Coldstream Road Roundabout | Deficient Best Management Practices | None | Staff Enforcement Letter |
| | | San Bernardino | DR Horton Los Angeles Holding Company | Mojave 276 | Deficient Best Management Practices | None | None |

Attachment A
3rd Quarter Violations Table 2021

| Program | Priority | County | Reponsible Party | Facility | Violation Description | Corrective Action | Enforcement Action |
|---|---|---|---|---|---|---|---|
| Sanitary Sewer Overflow | B | San Bernardino | Lake Arrowhead Community Service District | Lake Arrowhead CSD CS | Estimated 2,875 gallons of sewage spilled to Lake Arrowhead | Pipe repaired and site cleaned up | None |
| Confined Animal Feed Operation | B | San Bernardino | Dutch Dairy-Mike Devries | Dutch Dairy | Incomplete report | None | None |
| Land Disposal | B | Inyo | DV Natural Resource | Briggs Mine Project | Exceeded water quality protection standards for different metals in groundwater | None | None |
| | | Inyo | DV Natural Resource | Briggs Mine Project | Incomplete report | None | None |
| | | San Bernardino | American Organics | Victor Valley Regional Compost | Exceeded groundwater receiving water limitations for multiple constituents. | Evaluating data regarding background conditions and potential upgradient pollutant sources. | None |
| | | San Bernardino | San Bernardino County Waste | Hesperia Class III Landfill | Exceeded groundwater receiving water limitations | None | None |
| | | San Bernardino | Searles Valley Minerals | Trona Plant | Exceeded effluent limitations for kerosene and oil and grease. | None | None |

Attachment A
3rd Quarter Violations Table 2021

| Program | Priority | County | Reponsible Party | Facility | Violation Description | Corrective Action | Enforcement Action |
|---|---|---|---|---|---|---|---|
| | | San Bernardino | Searles Valley Minerals | Argus Plant | Incomplete report | None | None |
| | | San Bernardino | Searles Valley Minerals | West End Plant | Incomplete report | None | None |
| | | Kern | US Air Force Edwards Air Force Base | Main Base Class III Landfill | Late Report | Submitted correct report upon being notified about violation | Staff Enforcement Letter |
| | | Kern | Golden Queen Mining Co LLC | Soledad Mountain Project | Monitoring Well Installation Work Plan not submitted | None | None |
| Wastewater | B | Inyo | US Navy Naval Air Weapons Station China Lake | Salt Wells Propul. Labs | Exceeded daily effluent flow limitation (32 violations) | Discharger has requested WDR revision to increase flow limitation | None |
| | | Kern | Rosamond CSD | Rosamond WTF | Incomplete report and exceeding groundwater receiving water limitations | Treatment system and disposal facility upgrades under construction | None |
| | | Kern | Big Pine Indian Reservation | Big Pine Indian RES WTF | Late Report | None | None |
| | | Kern | Kern Community College District | Eastern Sierra College Center | Late Report | None | None |
| | | Kern | Los Angeles City DWP | Independence WWTF | Late Report | None | None |

Attachment A
3rd Quarter Violations Table 2021

| Program | Priority | County | Reponsible Party | Facility | Violation Description | Corrective Action | Enforcement Action |
|---|---|---|---|---|---|---|---|
| | | San Bernardino | Westland Industries Inc | Bear Valley MHP WTF | Sewage spill from community septic system | Septic sewer spill cleaned up and septic tank repaired | None |
| | | San Bernardino | Fort Irwin National Training Center | Fort Irwin Waterworks | Inadequate pond freeboard | None | None |

# ATTACHMENT B

UNAUTHORIZED DISCHARGE REPORT
JANUARY 1, 2022 TO JANUARY 31, 2022

| Responsible Party | Location of Occurrence | Regulated Facility | Basin N/S | Date of Occurrence | Volume of Occurrence | Violation Description | Comments | Status |
|---|---|---|---|---|---|---|---|---|
| **San Bernardino** | | | | | | | | |
| Freight Trailer | Southbound Interstate 15 at D street off ramp, Victorville | No | S | 1/23/2022 | 150 gallons | Truck accident caused diesel fuel to spill on road shoulder and off roadway dirt | Freight company hired Clean Sweep and removed soil contaminated with fuel | Cleanup complete |
| **Eldorado** | | | | | | | | |
| Heavenly Mountain Ski | 3860 Saddle Road, South Lake Tahoe | Yes | N | 1/1/2022 | 1000 gallons | Clog in sewer line from caused sewage to backup and be released from a cleanout, flow out of clean out to a storm drain 100 plus yards away | Surface sewage was removed. Sewage made it to a Storm Drain is part of Heavenly's storm water management system liquids filtration system. | Sewer line was unclogged and service was restored disinfectant used on roadway. Spill report by Heavenly submitted |

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

# ATTACHMENT C

# EXECUTIVE OFFICER ACTION ITEMS

January 1, 2022, to January 31, 2022
Lahontan Regional Water Quality Control Board

| DOCUMENT | DATE |
|---|---|
| NO FURTHER ACTION REQUIRED[1] | |
| No Further Action Required for Inyo Crude Shell Y Mart, 1290 Main Street, Bishop, Inyo County | 01/10/2022 |
| EXEMPTIONS | |
| Pending Action for Board Order No. R6T-20XX-XXXX, Clean Water Act Section 401 Water Quality Certification and Exemption to Waste Discharge Prohibitions for the Pier Reconstruction – Morrison Property, Placer County | 01/04/2022 |
| Pending Action for 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 and Exemption to Waste Discharge Prohibitions for the Carey Pier Rebuild Project, Nevada County | 01/10/2022 |
| Pending Action for Board Order No. R6T-2018-0023-A1, Amended Clean Water Act Section 401 Water Quality Certification and Exemption to Waste Discharge Prohibition for the Coldstream Specific Plan Project, Nevada County | 01/20/2022 |
| Transmittal of Amended Board Order No. R6T-2018-0023-A1, Amendment to Clean Water Act Section 401 Water Quality Certification and Basin Plan Prohibition Exemption for the Coldstream Specific Plan Project, Nevada County | 01/20/2022 |
| Pending Action for Board Order No. R6T-2022-XXXX, Clean Water Act Section 401 Water Quality Certification and Exemption to Waste Discharge Prohibition for the Fleur du Lac Estates Association Boathouse & South Pier Rehabilitation Project, Placer County | 01/28/2022 |

[1] 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.

| DOCUMENT | DATE |
|---|---|
| Pending Action for Board Order No. R6T-2022-XXXX, Clean Water Act Section 401 Water Quality Certification and Exemption to Waste Discharge Prohibitions for Blakemore – Pier Reconstruction, Placer County | 01/31/2022 |

EXTENSIONS

| | |
|---|---|
| NONE | N/A |

ADOPTED BOARD ORDERS

| | |
|---|---|
| NONE | N/A |

401 WATER QUALITY CERTIFICATIONS

| | |
|---|---|
| Notice of Applicability: Water Quality Order No. 2018-0025-EXEC Clean Water Act Section 401 Water Quality Certification and Basin Plan Prohibition Exemption for the Truckee Sanitary District Donner Creek Emergency Repair Project, Nevada County | 01/27/2022 |

WASTE DISCHARGE REQUIREMENTS

| | |
|---|---|
| Notice of Termination – Conditional Waste Discharge Requirements, Hepro Cooperative Inc, San Bernardino County | 01/24/2022 |
| Notice of Termination – Conditional Waste Discharge Requirements, Herbud Lite, Inc., Kern County | 01/31/2022 |

MISCELLANEOUS DOCUMENTS

| | |
|---|---|
| Comments on Atlantic Richfield Company's Prepublication Draft Technical Impracticability Evaluation for the Early Final Remedial Action for Operable Unit 1, Leviathan Mine Site | 01/14/2022 |
| Comments on Atlantic Richfield Company's Focused Feasibility Study for OU-1 Mine-Influenced Groundwater and Metals in Surface Water, Leviathan Mine Site, Alpine County | 01/14/2022 |

Additional links:
General Policy information
Copy of Policy
Implementation Plan

# ENCLOSURE 3

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

**EXECUTIVE OFFICER'S REPORT**
**DECEMBER 2021 AND JANUARY 2022 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 | November |
| Onsite Septic Systems | Annual | April |
| Salt & Nutrient Management Plans | Annual | September |
| Status of Triennial Review Projects | Annual | August |
| Status of Dairies | Annual | February |
| Status of Grants | Annual | June |
| City of Barstow Nitrate | Annual | June |
| City of Barstow Orphan Perchlorate | Annual | June |
| Lake Tahoe Water Quality | Annual | December – **January** |
| Leviathan Mine | Annual | March |
| Harmful Algal Blooms | Annual | November |
| Pacific Gas & Electric Company | Semi-Annual | May<br>December |
| Quarterly Violations Report | Quarterly | January (3rd quarter) – **Article #2**<br>April (4th quarter)<br>July (1st quarter)<br>October (2nd quarter) |

*Water Board staff presentation