EXECUTIVE OFFICER'S REPORT
November 1, 2022 – November 30, 2022

Contents

1. Personnel Report – *Sandra Lopez*

New Hires

- Ashley Taylor, Engineering Geologist, Land Disposal Unit, Victorville. This position will oversee waste discharges and site investigation/cleanup at various types of regulated and unregulated facilities including landfills, mines, and site cleanup sites.

Vacancies

- Water Resource Control Engineer, Wastewater & Agricultural Unit, Victorville. This position provides regulatory oversight of projects involving discharges to groundwater or surface waters and projects intended to restore and/or enhance water quality in the Waste Discharge Requirements (WDRs), National Pollutant Discharge Elimination System (NPDES), and Site Cleanup Programs.

- Engineering Geologist, Wastewater & Agricultural Unit, Victorville. This is a new position authorized under SB 1215 (Hertzberg) legislation passed in 2018. The incumbent will work with economically disadvantaged communities that have onsite wastewater treatment systems (OWTS, or septic systems) that could be connected to a sewer system if they are within three miles of a system. The incumbent will also work with other small rural communities in need of upgrading their wastewater treatment systems.

- Environmental Scientist, Land Disposal Unit, Victorville. This position will provide regulatory oversight of dredge and fill permitting and compliance of Caltrans projects regionwide.

- Engineering Geologist, Land Disposal Unit, Victorville. This position will oversee waste discharges to land and site investigation/cleanup at various types of regulated and unregulated facilities including landfills, mines, composting facilities, cement plants, and site clean up sites.

- Office Technician (Typing), Victorville. This position will assist in proofreading and editing staff documents, engage with staff and the public at the front office desk, provide support to technical and administrative staff, ensure documents comply with accessibility standards, and provide administrative support at regional board meetings held throughout the region.

- Office Technician (Typing), South Lake Tahoe. This position will assist in proofreading and editing staff documents, engage with staff and the public at the front office desk, provide support to technical and administrative staff, ensure documents comply with accessibility standards, and provide administrative support at regional board meetings held throughout the region.

- Water Resource Control Engineer, Cannabis Unit, South Lake Tahoe. This position provides regulatory oversight of cannabis cultivation projects under the statewide Cannabis General order.

- Water Resource Control Engineer, Regulatory and Enforcement Unit, South Lake Tahoe. This position will backfill a vacancy within the North Basin Regulatory Unit.

- Senior Water Resource Control Engineer, Leviathan Mine Unit, South Lake Tahoe. This position will supervise the unit containing Leviathan Mine and Cannabis programmatic technical staff by establishing priorities, work plans, hiring technical staff, and collaborating with state and local agencies.

- Senior Water Resource Control Engineer, Forestry/Dredge & Fill Unit, South Lake Tahoe. This position will perform Senior level activities and provide engineering expertise associated with managing the activities of the Forestry/Dredge & Fill Unit. The incumbent will supervise and direct the work of five professional technical staff, oversee staff development, perform recruitment of new staff, conduct performance evaluations, and track program budgets, as well as a variety of other duties.

- Engineering Geologist, Forestry/Dredge & Fill Unit, South Lake Tahoe. This position will provide geologic and hydrogeologic expertise for the Forestry Dredge and Fill Unit. The incumbent will evaluate and regulate the impacts of logging operations and other forest practices on the quality and beneficial uses of water. They will also review and regulate proposed projects that may affect water quality of waters of the state to ensure compliance with the requirements of the Water Quality Control Plan for the Lahontan Region (Basin Plan), Porter-Cologne Water Quality Control Act, the Federal Clean Water Act (CWA), and the California Environmental Quality Act (CEQA).

- 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

- Environmental Scientist, Planning & Assessment Unit, South Lake Tahoe. This position will work on Basin Plan amendments, help assess waters as part of the Integrated Report, and work to develop TMDLs or alternative restoration plans.

- 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.

Departures

- Catherine Pool, Senior Water Resource Control Engineer, South Lake Tahoe

- Emily Cushman, Engineering Geologist, Victorville

2. **Standing Item - Regional Harmful Algal Bloom Program Update** – *Sabrina Rice*

Legislative Mandated Report and Gap Assessment

The Freshwater and Estuarine Harmful Algal Bloom (HAB) Bill, Assembly Bill 834 (AB 834) requires a report be posted on the State Board's website prior to July 1, 2021, regarding the State's efforts towards implementing AB 834 and Staff recommendations to protect water quality and public health from HABs. State Board completed the report in two phases and has now published the final Legislative Mandated Report: 2022 Water Code Section 13182 (a) Comprehensive Report (Report). The two parts include (1) 2021 Legislative Report and (2) comprehensive report to highlight progress made after one full fiscal year of work supported by the program funds and permanent staff hired to assist with program implementation.

The 2021 Legislative Report details how the Water Boards addressed HABs since the onset of the FHAB Program in 2016. The report thoroughly outlines the different requirements of AB 834 and identifies the Water Boards' actions, infrastructure, and partnerships to meet those requirements. The 2022 Legislative Report highlights the incidence of freshwater and estuarine HABs in the state during the previous three years, and actions taken since June 2021 in meeting the requirements of California Water Code (CWC) Section 13182 (a) 1 & 2, and recommendations for additional actions that should be taken to protect water quality and public health (CWC Section 13182(a)3). The State and Regional Water Boards recognized early on that adequate staffing and

funding for equipment, laboratory, and research services would be a key priority for successful implementation. To assess the needs for full implementation throughout the state, the State Board FHAB Program staff conducted and posted results of a resource gap assessment (Gap Assessment). Each of the Regional Boards and staff from key statewide programs were interviewed to determine the needs to implement a holistic FHAB Program across the State. A few examples of program needs include funding and staff for sample analysis, data interpretation, and TMDL development. Region 6 participated in the assessment and identified specific resources the region would need to address HABs.

Pre-Holiday Assessment

This year we continued our efforts across the State to monitor popular waterbodies for HABs prior to Memorial Day, Independence Day, and Labor Day. This year's laboratory contract budget allowed for additional monitoring to evaluate HAB conditions beyond those during typical high-recreational use holiday weekends. As such, a fourth "post-holiday" assessment sample event was added that captured HAB conditions in late October, early November of 2022. During each assessment about 25 waterbodies are sampled in Region 6.

To more efficiently implement and widely distribute our regional FHAB program, we rely heavily on developing partnerships with organizations throughout the Lahontan region that help us conduct holiday assessments and respond to new bloom reports. This year Region 6 formed two new sampling partnerships with Truckee River Watershed Council and Lake Arrowhead Association. To date, our sampling partners include Lassen National Forest, Truckee River Watershed Council, Tahoe Keys Property Owners Association, Tahoe Paradise Park, Alpine Watershed Group, South Tahoe Public Utility District, California Department of Fish and Wildlife, Walker River Irrigation District, Friends of Inyo, Inyo County of Environmental Health, Los Angeles Department of Water and Power, California Department of Water Resources, San Bernardino County Parks, and Lake Arrowhead Association totaling 14 monitoring partners. The pre-holiday assessments would not be possible without these great partnerships.

Region 6 Monitoring Summary

This year our monitoring season spanned from February – November. Over $100,000 in regional and state contract laboratory funds supported analyses of 302 samples collected throughout the Lahontan region from as far north as Eagle Lake and as far south as Lake Arrowhead. Additionally, five human and dog illness reports were investigated with 1 dog illness considered HAB related by the Interagency HAB Related Illness Workgroup (Illness Workgroup) comprised of staff from the Office of Environmental Health Hazard Assessment, the State Board, the California Department of Public Health, and the California Department of Fish and Wildlife. The report involved two dogs becoming ill after playing in the water at Lake Tahoe's Kiva Beach in late August. The Illness Workgroup determined that the incident was HAB related due to water sample results containing cyanotoxins, illness symptoms, and veterinary records.

Table 2.1: Number of waterbodies reaching each corresponding HAB advisory level.

Advisory Level	Caution	Warning	Danger
Number of Waterbodies	15	1	6

Figure 2.1: A map showing waterbodies in the North Lahontan Region that were sampled during 2022 and the corresponding advisory levels recommended for the protection of human and animal health.

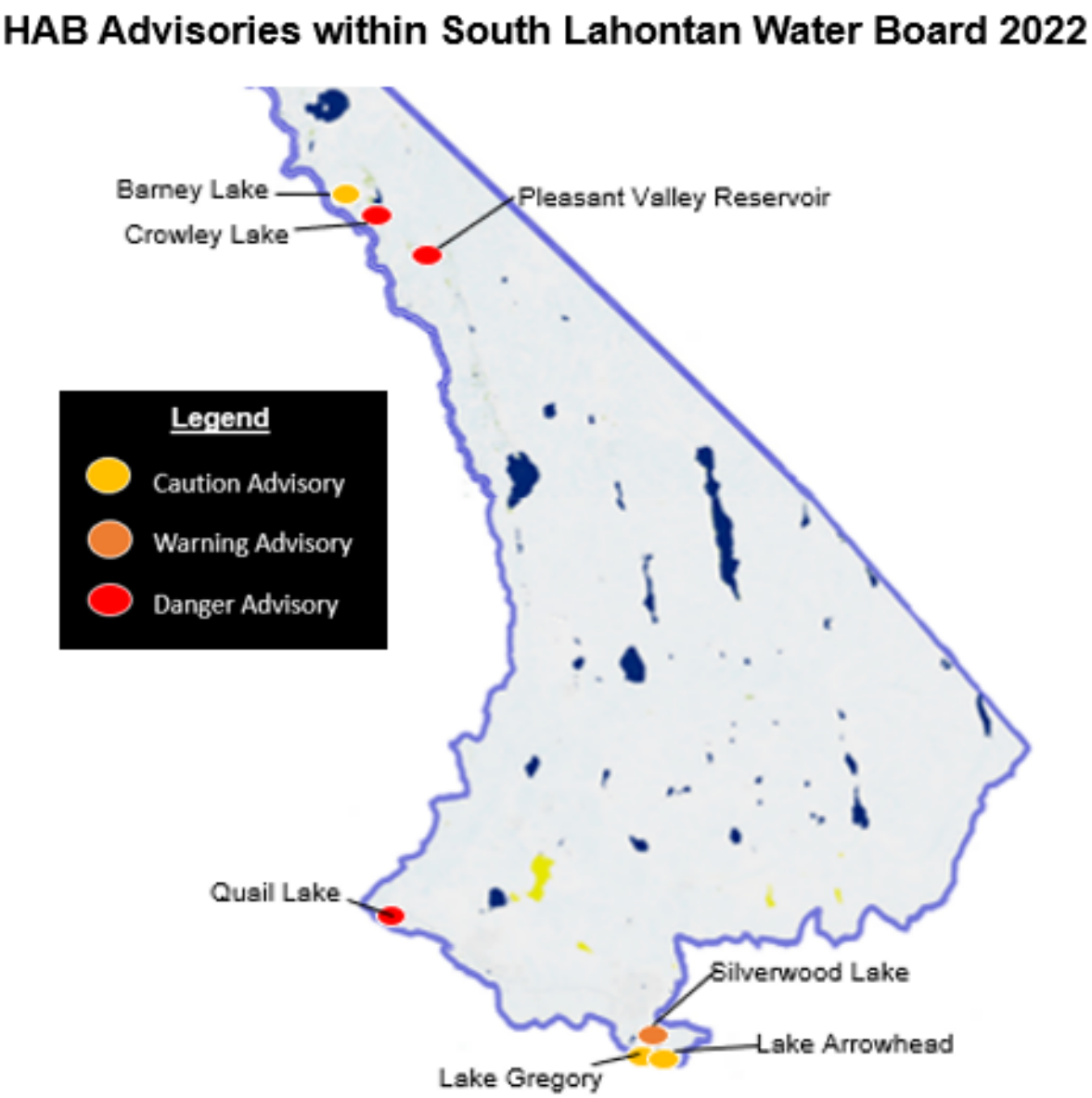

Figure 2.2: A map showing waterbodies in the South Lahontan Region that were sampled during 2022 and the corresponding advisory levels recommended for the protection of human and animal health

League to Save Lake Tahoe Partnership

In response to multiple public inquiries and an increase in community awareness regarding HABs, the Water Board partnered with the League to Save Lake Tahoe (LTSLT) to increase HAB media outputs within the Tahoe Basin. The goal of this partnership is to increase public knowledge of HABs within the Tahoe Basin and release consistent messaging to the public. Compared to previous years, the LTSLT received an increase of public inquiries regarding HABs and algae along the shoreline of Lake Tahoe. To ensure they were sharing consistent and accurate messages with the public,

the LTSLT re-shared general HAB awareness posts that went out through our State Board Communications Office. Additionally, Water Board staff worked closely with the LTSLT to release a social media post prior to Labor Day about HAB advisories within Tahoe and the Tahoe Keys. To more specifically target the public's questions, staff from the Water Board and LTSLT collaborated on an article describing HABs; the different level of precautions associated with HAB advisory levels (Caution, Warning, Danger); and information about the sample sites within Lake Tahoe and the Tahoe Keys that were monitored during the 2022 season. Next summer, the Water Board and the LTSLT plan to continue releasing HAB updates (news releases, social media posts) to keep the public aware and informed.

Tahoe Basin Story Map

To further assist in public awareness on HABs in the Tahoe Basin, Staff are creating an ArcGIS Story Map (story map). A story map is an application that allows you to share your maps in the context of narrative text and other multimedia content. The idea is to add information and photos about Lake Tahoe HABs to give the public a general awareness of what is happening along the shoreline of the lake. This will also be a tool that we can quickly direct the public to when they have questions or concerns about the conditions around the shoreline. The public will be able to access the story map on our regional HAB website.

3. **Standing Item - Regional Grazing Status, 2022 Update** – *Mo Loden*

This is an annual standing item report to present an update regarding on-going and planned efforts, including some led by the State Board, which aim to address water quality impacts associated with grazing operations in the Lahontan Region. Grazing lands comprise 76% of the 407,802 agricultural acres in the Lahontan Region. Updates are provided for targeted efforts that are underway in Bridgeport Valley, Eagle Lake, Bishop Creek, and the West Fork Carson River. These efforts, each in a different stage of development or implementation, utilize different strategies to address grazing-related water quality impacts.

Bridgeport Valley: Water Board staff, as well as the University of California Cooperative Extension (UCCE) and Bridgeport Rancher's Organization (BRO) guest presenters, provided updates pertaining to the Bridgeport Grazing Waiver at a March 2022 Informational Item. Elements of the presentation included a summary of the following topics.

- Bacteria Trend Analysis: UCCE Professor Dr. Ken Tate provided a statistical analysis summary of the BRO's 2006-2017 bacteria data that showed a 73% improvement in fecal coliform levels since 2006; however, levels were still above the 200 cfu/100ml interim target.

- Best Management Practices (BMPs): BRO member Emily Fulstone provided updates and photos regarding progress on a variety of rancher implemented BMPs since the Waiver's inception such as riparian fencing, off-stream drinking

water systems, salt licks, strategic pasture rotations, improved irrigation control structures, and hardened water crossings.

- Ranch Survey Summary: UCCE Associate Professor Dr. Tina Saitone presented on BMP investments, and pesticide and nitrogen use data she gathered from individual rancher surveys. The 2006-2021 BMP investment costs were estimated at $4,172,928 in total using standardized Natural Resources Conservation Service (NRCS) service rates for materials and standardized Bureau of Labor rates for California workers in animal agriculture. The pesticide and nitrogen survey questions posed to the BRO members were originally developed by the Central Valley Water Board staff for a similar project in the Goose Lake watershed. Survey results summarized that no synthetic or organic nitrogen is applied to irrigated pastures, and it was further emphasized that based on historic data and published literature that the Bridgeport Valley irrigated pastures are a sink for nitrogen and phosphorus. Some targeted pesticide use is applied as needed to treat noxious weeds, but no broadcast pesticide application is done.

- End-of-Valley Project: BRO President Steven Fulstone explained that in 2017 watershed-based approaches to address bacteria issues were discussed and led to the NRCS and Walker River Irrigation District (WRID) working with the BRO to develop plans for a bottom-of-valley water treatment. Since then, Waiver enrollees have pivoted away from the End-of-Valley project due to the excessive project cost, lack of organizational capacity to plan for/implement/provide maintenance on the project in future years, and issues with site access.

- Water Board staff graphically presented conclusions from bacteria data collected between 2017-2021. Though the dataset was limited where geomean calculations were possible, the data showed promising results towards compliance. Buckeye and Robinson Creeks were very close to or achieving the State Board *E. coli* objective of 100 colony forming units per 100 milliliters (cfu/ml). The East Walker River's geomeans were elevated slightly in comparison at approximately 200cfu/100ml and therefore that sub-watershed may benefit the most from a focused BMP effort.

- Other updates: Approximately 75% of the 20,000 acres in Bridgeport Valley have been dedicated to conservation easements by the landowners. These conservation easements will help protect these parcels from development indefinitely and the preserved open spaces are ideal habitat for various wildlife.

Since the March 2022 Board meeting, the BRO members and Water Board staff collaborated in a series of productive stakeholder meetings toward developing an improved and renewed waiver. Once adopted, and if properly implemented, the waiver requirements should lend progress towards compliance with interim targets and ultimately bacteria water quality objectives established for the protection of surface waters throughout the Bridgeport Valley.

The 2017 waiver expired in July 2022. Due to limited staff resources and last-minute unforeseen information regarding the State Board Irrigated Land fees, a gap of coverage existed for approximately seven months. The renewed waiver is planned for consideration at the Water Board's March 2023 Board hearing.

The 2022 annual ranch inspections were scheduled for mid-November but were postponed to 2023 due to snow accumulation which would present access and observation challenges during site visits.

Eagle Lake: Lakefront property managers and owners, who maintain livestock on their land, are required to submit annual grazing plans to the Water Board by May 15 before the start of grazing operations each year. For the third year, the Water Board has received adequate plans. Federal land managers submit Annual Operation Instructions (AOI) for each allotment while private property owners submit Rangeland Water Quality Management Plans each season. The grazing management plans should demonstrate an overall reduction of animal waste to the shore of Eagle Lake through application of management techniques. For 2022, the U.S. Forest Service, Lassen National Forest, the Bureau of Land Management, Five-Dot Ranch, Mapes Ranch and McClelland Ranch all submitted compliant plans. In general, grazing was reduced again this season compared to 2021.

The Water Board received one complaint/inquiry from a concerned citizen seeking information about livestock operations adjacent to Eagle Lake that were potentially not following guidance contained in the submitted grazing management plans. The complainant had concerns regarding ~80 cattle that were in contact with Eagle Lake in the Lassen National Forest, South Eagle Lake Allotment. The Lassen National Forest continues to seek alternative water sources for the South Allotment.

Overall, complaints and reports of cattle in unauthorized areas and in contact with Eagle Lake were fewer this season than last season and past seasons.

Water Board staff did not inspect any Eagle Lake grazing land this past season due to the on-set of inclement weather that precluded travel to scheduled field visits. Next season staff plan to meet with land managers in the field.

Bishop Creek: The Bishop Creek Vision Plan (BCVP) aims to address 303(d) listings for *E. coli* fecal indicator bacteria (FIB) affecting Bishop Creek in Inyo County. The draft BCVP was circulated for stakeholder review during summer 2022. In September 2022, Board Members approved the BCVP. The BCVP, an alternative restoration plan and 9-Element Watershed Plan, provides a source assessment of FIB impacting creek waters and outlines multiple voluntary approaches to reduce anthropogenic sources of FIB. The BCVP includes an implementation timeline and outline for adaptive management that will be carried out by the Bishop Creek ranchers with guidance from Nonpoint Source Unit staff, Senior Environmental Scientist - Supervisor Mary Fiore-Wagner and Environmental Scientist Mo Loden. Previously, the project fell under the Planning & Assessment Unit with lead staff, Senior Environmental Scientist - Supervisor Dan Sussman and Environmental Scientist Ed Hancock.

In March 2022, first drafts of the Rangeland Water Quality Plans (RWQPs), developed by Water Board and UCCE staff, were shared with the Bishop Creek Tier 1 ranchers. Tier 1 properties are those which are directly adjacent and hydrologically connected to Bishop Creek. The Tier 1 RWQPs are expected to be finalized early in 2023, during which time staff will begin outreach to Tier 2 ranches. Tier 2 properties are those which are not directly adjacent to Bishop Creek but share some form of hydrological connection because of irrigation practices. Tier 2 ranch outreach will follow a similar approach to outreach conducted to the Tier 1 ranchers including introductions of the project, relationship building, and planning efforts towards on-ranch site visits to collaboratively identify management practices for improving water quality.

West Fork Carson River: Water Board staff continues to work with stakeholders and agencies on the development of the West Fork Carson River Vision Plan (WFCVP). The WFCVP is an alternative restoration approach to address Clean Water Act 303(d) listings on the river by addressing multiple potential sources of pollution, including recreational impacts, roads and highways, and grazing.

In March 2022, Alpine Watershed Group (AWG) held a Vision Project Stakeholder Forum on Ranching for Improved Water Quality. Recordings from the March forum, as well as all the previous Vision Project Stakeholder forums are available on the AWG website. On October 31, staff in cooperation with the Alpine Watershed Group followed up on the stakeholder forum with a tour and discussion at Ace Hereford Ranch. The tour and discussion were focused on ranching practices that reduce potential impacts to water quality and improve hydrologic function and soil health. During the site tour, the Ace Hereford ranchers explained the BMP improvements they have implemented thus far which include installing a significant hardened crossing bridge, riparian exclusion fencing, water gap, check dams, irrigation ditches, improved desirable and diversified forage, planting trees and vegetation to decrease wind erosion, and wetland enhancements. Through ongoing BMP installation and maintenance, the Ace Hereford Ranch demonstrated they are an environmentally focused business dedicated to ongoing improvements and education aimed at achieving high water quality standards.

Water Board staff will continue to work with ranchers and other stakeholders in the watershed to encourage the development and implementation of plans to assess potential grazing water quality impacts and implement practices to reduce those impacts. The WFCVP will include a description and timeline for that process. Water Board staff plan to release a draft WFCVP for public review in spring 2023 and then bring a revised draft before the Water Board for its consideration at a Board Meeting in summer 2023.

Regional Grazing Strategy: In 2015, State Board directed Water Board staff to work with stakeholders on a regional level for best approaches of addressing water quality impacts from grazing. Since then, staff have worked periodically to develop a more holistic approach for our region. However, efforts have been hampered by staffing changes and higher priority work. Additionally, State Board resources such as the "Managing Water Quality on Grazed Lands" guidance document and an "Analysis of Grazing Regulatory Actions of the California Water Boards" document, both of which will

inform the Regional Grazing Strategy, were not made available until fall 2022. More details on both State Board resources are provided below.

The Regional Grazing Strategy efforts are anticipated to increase in 2023 with the development of a plan to map private and federal grazing operations within the region and make recommended approaches to address grazing-related impacts based on threat to water quality. Staff are exploring different options, including a tiered decision-making process, to determine the appropriate level of regulation to address grazing related impacts through one of the following: Waste Discharge Requirements (WDRs), Waivers of Waste Discharge Requirements (Waivers), water quality prohibitions, or a voluntary approach such as a Vision Plan.

State Board Efforts: State Board staff are actively working on a statewide grazing guidance document which will update the 1995 California Rangeland Water Quality Management Plan. The guidance document is intended to promote effective grazing management practices through a non-regulatory approach focused on education and outreach on potential impacts to water quality from grazing. The document previously referred to as the "Statewide Grazing Guidance" has been retitled "Managing Water Quality on Grazed Lands" to more clearly communicate that this is a voluntary guidance document. The draft document has undergone State Board managerial review and was released for Regional Water Board review in mid-November.

State Board was awarded a U.S. Environmental Protection Agency National Non-Point Source Agricultural Technical Support grant to support efforts to compile different grazing programs that individual regional boards have in place to address grazing through regulatory, TMDL, and/or voluntary approaches. The final report was completed by Tetra Tech in August and was released to the Regions in October 2022.

Staying Current: Staff attended the following events to enhance the Region's knowledge and experiences related to managing grazing impacts on water quality.

The "Sierra Meadows Wetland and Riparian Area Monitoring Plan (SM-WRAMP) Training" was hosted by the Sierra Fund back in late June 2022 in Clover Valley. The training was a hands-on event where staff learned how to apply the SM-WRAMP Protocols and Guidance Document in real-life experiences. The guidance document provides a standardized framework for assessing and monitoring meadows in the Sierra Nevada so projects can be more easily compared to one another. The training covered soil carbon, general vegetation, grazing impacts, wildlife monitoring, eDNA, surface water flow, and groundwater protocols. It was emphasized that the guidance document may need to be adapted to a project and is not considered a stringent set of protocols. Protocol revisions may be done annually with ongoing input from field practitioners. The grazing impacts protocol demonstrated how to identify bank alteration and lack of key forage species caused by livestock.

The Central Coast Rangelands Coalition's "Importance of Livestock Pond Restoration Workshop" took place in Sunol, CA in mid-October. The event provided an overview of wild-life friendly livestock ponds and the multiple benefits they provide not only as an

off-stream water source for livestock but also as essential habitat and breeding grounds for aquatic amphibians, turtles, and invertebrates. Often, the ponds support critical species such as the California Red-legged frog and Tiger Salamander. Ponds may be built or restored to retain water and therefore increase the potential to hold water in a field for livestock use. Improvements to livestock ponds may also improve inadequate stock water issues, which provide more opportunity for a land manager to properly utilize and manage forage while providing essential habitat for wildlife. This restoration technique may be applied to grazing communities throughout the Lahontan Region in the future as a means to support livestock and wildlife and treat tailwater for nutrients and bacteria before reentering surface waters.

As often as possible, Water Board staff routinely participate in meetings, usually scheduled monthly, which are hosted by the Range Management Advisory Committee (RMAC). The RMAC was statutorily created by Section 741 of the Public Resources Code of the State of California to advise the Board of Forestry and Fire Protection, the Resources Agency, the California Environmental Protection Agency, and the California Department of Food and Agriculture on rangeland resource issues. The RMAC is responsible for advising on matters affecting the conservation, management, and use of grassland, oak woodland/savannah, brushland, and other grazed ecosystems in the State. As mandated by Section 741, Water Board staff shall notify the advisory committee of, and is encouraged to consult with the advisory committee on, rangeland resource issues that are under consideration. Water Board staff shared the Bridgeport Grazing Waiver Tentatives with the RMAC Coordinator who then distributed the tentative order to the RMAC members and stakeholder listserv in November 2022.