EXECUTIVE OFFICER'S REPORT
November 1, 2021 – November 30, 2021

Contents

State and Regional

1. Personnel Report – *Sandra Lopez*

New Hires

- Andrew Jensen, Environmental Program Manager I (Supervisor), Compliance and Planning Division, South Lake Tahoe. This position will manage the Division consisting of the following technical programs: Basin Planning & Assessment, Surface Water Ambient Monitoring Program, Non-Point Source, Forestry/Dredge & Fill, Lake Tahoe Total Maximum Daily Load (TMDL), and Regional Monitoring/Climate Change coordination.

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.

- Sr. 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 and 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.

- 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.

Departures

- Jehiel Cass, Senior Water Resource Control Engineer, Victorville. Jehiel retired after 33 years of state service.

2. **Standing Item** – **Regional Grazing Status, 2021 Update** – *Mo Loden*

This is an annual standing item to present an update regarding on-going and planned efforts, including some led by the State Board that aim to address water quality impacts associated with grazing operations 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.

Extent of grazed lands in the in the Lahontan Region: Grazing lands comprise 76% of the 407,802 agricultural acres in the Lahontan Region. Because of precipitation differences, grazing lands in the north have high forage value and readily available water. Forage is sparse and water is scarce in low-rainfall grazed lands in the south, requiring much more acreage to support livestock. Water quality, streambank erosion, and the ecology of riparian areas can be heavily impacted by grazing, and the Water Board identified grazing issues as an area of priority work. Irrigated pastures are the largest proportion of irrigated lands in the Lahontan Region and can be subject to tailwater runoff carrying elevated concentrations of bacteria to local surface waters. Bridgeport Valley operations, subject to the grazing waiver and Los Angeles Department of Water and Power grazing leases, are the largest irrigated pasture operations in the Lahontan Region.

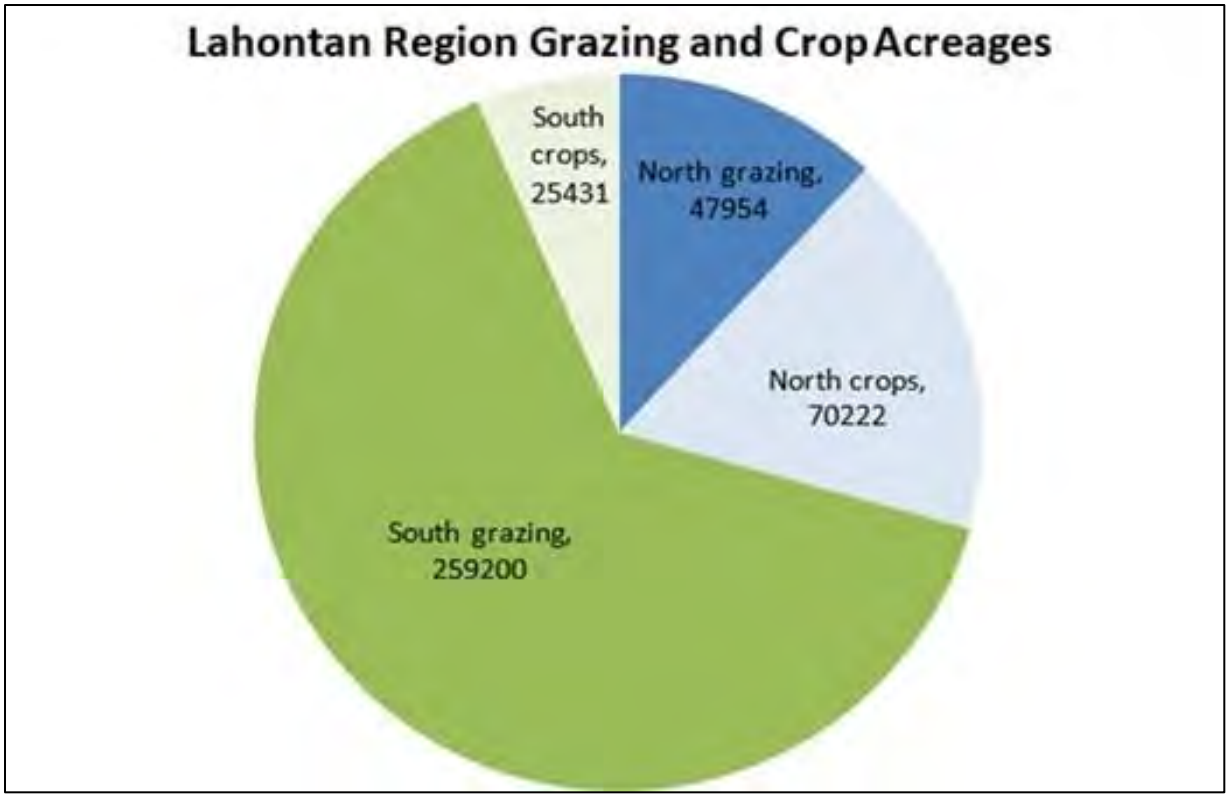

Figure 2.1 - Source: USDA National Agricultural Statistics Service Cropland Data Layer. {2016}. Grazing acreage includes grass & pasture. South Lahontan includes most of Mono, Inyo, San Bernardino, Kern, and Los Angeles Counties; North Lahontan includes parts of Mono and Alpine, El Dorado, Lassen, Modoc, Nevada, and Sierra Counties.

Most grazed acreage in the north is located on US Forest Service (USFS) allotments in the Sierra Nevada and Cascade Mountain ranges, with fewer Bureau of Land Management (BLM) and privately-owned grazing allotments in valley plains. While the predominantly BLM-managed grazing lands in the south may cover large acreages, livestock tend to gather in the limited acreage of riparian zones of desert springs, seeps, and streams, reducing beneficial uses and ecological function of these sensitive water sources. There are also privately owned grazing lands in both the north and south. Crop acreages identified in the above chart are on private lands.

Bridgeport Valley: On October 11, 2021, staff met with the Bridgeport Rancher's Organization (BRO) members President Steven Fulstone, Kris Leinassar, Jeff Hunewill, and Marcus Bunn, to familiarize newly assigned staff with the area and ranchers. BRO members led site visits at the following ranches: F.I.M. Corp. - Summers Meadow Ranch, F.I.M. Corp. - Bridgeport Ranch, R.N. Fulstone Co. - Bridgeport Meadow Ranch, and Centennial Ranch. Each stop entailed a brief history of the ranch followed by details of implemented water quality improvements such as strategic rotation, salt placement, off-stream watering, improved riparian fencing, and designated grass filter strips. The inspections also allowed verification of elements of the Grazing Management Practice Implementation Annual Reports. All Annual Reports for Grazing Season Year 2020 have been submitted by the Bridgeport Waiver enrollees.

The second renewal of the Bridgeport Grazing Waiver was adopted by the Water Board on July 13, 2017. The waiver expires in July 2022 and a proposed renewed waiver is tentatively planned for consideration at the Water Board's September 2022 Board Meeting. To prepare for the waiver renewal, Lahontan Water Board staff met with the BRO, and Ken Tate and Tina Saitone of the University of California Cooperative Extension. Ken Tate shared microbial trend analysis of the 2006-2017 bacteria data set collected at various Bridgeport Valley ranches, which indicated an improving trend in fecal coliform levels. Additional information was presented regarding the work underway to inventory and showcase the investment and implementation of ranch management practices. Staff plan to present the information shared during the recent BRO meeting in an informational item planned for the March 2022 Water Board meeting.

Eagle Lake: All large 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. Federal land managers submit Annual Operation Instructions (AOI) for each allotment while private property owners submit Rangeland Water Quality Management Plans (RWQMP) 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 2021, 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, due to drought conditions, grazing was reduced this season compared to previous years.

The Water Board received a total of three complaints/inquiries from two concerned citizens seeking information about livestock operations adjacent to Eagle Lake that were potentially not following guidance contained in the submitted grazing management plans. Two of the concerns were investigated and found to be activities that fit within the parameters of the grazing management plans. The third complaint expressed an opinion that all grazing around Eagle Lake should be banned. A response was sent explaining actions the Water Board is taking to reduce grazing related impacts to the lake.

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

Water Board staff did not inspect any Eagle Lake grazing land this past season due to a reduction in staff field presence as a result of the pandemic, smoke, and fires. Next season staff plan to meet with land managers in the field.

Bishop Creek: Bishop Creek, Inyo County, near the City of Bishop is 303(d) listed because the creek is polluted by fecal indicator bacteria (FIB). To address the 303(d) listing, the Water Board is working with stakeholders in the watershed, including the Bishop Paiute Tribe, the Los Angeles Dept. of Water and Power (LADWP), and cattle ranchers, to develop the Bishop Creek Vision Project (Vision Project). The Vision Project focuses on voluntary actions with stakeholders to address water quality pollution. FIB monitoring from the Water Board's Surface Water Ambient Monitoring Program (SWAMP), Bishop Paiute Tribe, and LADWP shows that FIB pollution is

seasonal between April and October each year and is more acute in the downstream portions of the Vision Project. Microbial Source Tracking (MST) sampling performed by the Water Board and LADWP identifies ruminants such as cattle, humans, and pets as predominant anthropogenic sources of FIB in the creek. Water Board staff and stakeholders are in process of developing the implementation strategy for the Vision Project to address the varied sources of FIB pollution.

West Fork Carson River: From the town of Woodfords to the Nevada state line, the West Fork Carson (WFC) River in Alpine County is listed as an impaired waterbody due to nitrogen, indicator bacteria, and other pollutants. This segment of the WFC is unique in that it is mostly private lands with some private grazing operations in comparison to the rest of the watershed that is publicly owned and relatively undeveloped. Similar to Bishop Creek, a West Fork Carson River Vison Project is in process. Water Board staff are working closely with non-governmental organizations, Alpine Watershed Group and Carson Water Subconservancy District, to provide essential stakeholder and land manager Vision Plan outreach. A 'Rivers and Ranches' stakeholder meeting was planned for summer 2021 but ultimately was postponed due to COVID-19 limitations and staff transitions. Staff will be working with stakeholders to complete the Vision Project by September 2022.

Regional Grazing Strategy: In 2014, the Grazing Regulatory Action Project (GRAP) was developed to create state-wide grazing regulations, but it was soon disbanded in 2015 due to extremely diverse landscapes and stakeholder groups within California. Therefore, in 2015, State Board directed Regional 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 staff turn-over, lack of dedicated resources, higher priority work, and most recently impacts and inefficiencies associated with the Covid pandemic. The Water Board is pleased to have new hire, Mo Loden on board, who joined the Non-Point Source team on October 4, 2021. Mo will be leading the region's efforts on grazing oversight and collaborating with a team to develop the Regional Grazing Strategy (Strategy), which was formally identified as one of the Planning and Compliance Division's regional objectives. Efforts toward satisfying this objective are underway through coordination with the Forestry/Dredge & Fill, Planning and Assessment, and Non-Point Source Units.

Internal coordination is on-going to build and maintain a high-level understanding of different grazing related projects and approaches to address bacteria and other pollutants such as nutrients and sediment, while also assessing connection to, timeline for, and development of the Strategy. These efforts will result in the development of the Strategy, which will include oversight of federal grazing allotments and private lands. The Strategy will include priority actions involving renewing and updating the Bridgeport Grazing Waiver; and developing the Bishop Creek and West Fork Carson Vision Project. Other actions being considered include regionwide or watershed-specific general orders for irrigated pasture lands and a voluntary approach where grazing operations present a low-threat to water quality.

From 2017 to 2020, Lahontan staff worked to include grazing as a covered activity under the Federal NPS Permit. Ultimately, grazing was removed due to complex timelines and the State Board's efforts to update the 1995 California Rangeland Water Quality Management Plan (1995 RWQMP) which has similar purposes. The Water Board will continue to use its independent regulatory and enforcement authority to address water quality issues related to grazing activities on federal lands.

State Board Efforts

State Board staff are actively working on a Statewide Grazing Guidance document (Grazing Guidance) which will update the 1995 RWQMP. The non-regulatory Grazing Guidance 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 Grazing Guidance was in draft stage as of October 2021 and expected to start managerial and regional review in January 2022, followed by more outreach and an anticipated spring 2022 release.

In 2021, State Board coordinated robust stakeholder meetings with three diverse groups (academic and government, livestock industry, and environmental sectors) to better inform the updated RWQMP. State Board staff have been researching topics that arose during the 2021 stakeholder meetings and that information will be compiled into the draft guidance. Lahontan Board staff have been included in the State Board's effort on this update and plan to review and comment on the draft document.

Additionally, the State Board was recently awarded a USEPA 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. A potential deliverable would be a map quantifying grazing lots, types of grazing, how each is regulated, and locations throughout the state. This type of resource is highly desired by staff as we move forward to develop our Regional Grazing Strategy.

North Lahontan Region

3. Environmental Cleanup at Truckee Airport Jet Crash Site – *Jeff Brooks*

A private jet (Bombardier CL-600-2B-16) crashed adjacent to the Ponderosa Golf Course near the Truckee-Tahoe Airport (TRK) while attempting to land on July 26, 2021. Several agencies responded to the crash incident for multiple reasons requiring coordination between the agencies. Below is a brief description of how Lahontan Water Board staff coordinated with Nevada County in responding to the crash incident who oversaw site assessment, cleanup, and confirmation sampling analysis that was concluded in early November.

The crash resulted in the release of an unknown quantity of jet fuel to the soils underlying the crash site. The jet's fuel tank reportedly held up to 3,000 gallons of fuel, though the quantity onboard at the time of the crash was likely much less since the jet was at the end of a trip while attempting to land at TRK. It is also likely that much of the

fuel was consumed by the fire that occurred as a result of the crash. Lahontan Water Board staff consulted with Nevada County Environmental Health Department and environmental consultant Apex Envirotech, Inc. (Apex) for site assessment and cleanup activities.

After the crash, the area affected was secured for a Federal Aviation Administration and National Transportation Safety Board investigation. After that investigation was completed, the County took lead in investigating the crash area for crash-related environmental contamination. The County took the lead for this investigation as crash site conditions did not indicate that there was a significant threat to surface or ground water quality. However, Lahontan Water Board staff remained engaged in site assessment and cleanup, consulting with County staff and Apex staff for preparation of a work plan for assessing the extent of jet fuel and potential metals contamination from the incident, and also receiving updates from the County regarding cleanup actions.

The site assessment did result in determining that there was jet fuel contamination in the soil at concentrations requiring cleanup. Apex completed several rounds of remedial excavation to remove jet fuel-contaminated soil. Confirmation sampling completed after the excavation activities indicated that contaminated soil was generally removed to concentrations below San Francisco Bay Environmental Screening Levels that are considered to be protective of human health and the environment, including water quality. The site assessment and confirmation sampling also confirmed that the crash site did not present a threat to surface or ground waters.

The consultation and cooperation between Lahontan Water Board and Nevada County staff is a good example of the cooperative and productive working relationships that Lahontan Water Board staff has developed with our partner government agencies throughout the Lahontan Region. It is also a good example of how the agencies share the responsibility and workload that is involved with responding to such incidents.

South Lahontan Region

4. **Water Board Staff Judges at Annual Problem Solver's Competition** – *Patrice Copeland*

At the invitation of Mojave Water Agency (MWA) staff, Patrice Copeland, Supervising Engineering Geologist for the South Lahontan Basin Division's Victorville office, lent her years of experience and expertise to serve as a judge at MWA's Annual Problem Solver's competition, held in the Town of Apple Valley on November 15, 2021. This competition is part of MWA's Annual Innovators High Desert Water Summit that brings together the region's brightest young minds for a day of water education, conversation, and awards for the winners. Awards will be announced at the Innovators Water Summit that is scheduled for February 25, 2022. The winning Problem Solver's team's school will be awarded a scholarship up to $3,000. The judges panel also included Socorro Pantaleon, Government and Public Affairs representative for the Cucamonga Valley Water District, and Doug Matthews, Director of Public Works and Water for the City of Victorville.

Three teams of middle-school to high-school aged students participated in the competition to answer this question: “Domestic well owners are not regulated for water quality under state or federal regulations, your goal is to develop a system, management solution, or series of standards that domestic well owners can use to ensure they are drinking safe and economically affordable water.” The students were charged with creating a program, or standards of water quality for domestic wells, in order to answer the problem question. Each team made a presentation to the judges, and the judges asked questions after each team presented.

Competitors in the challenge included teams from Melva Davis Academy of Excellence (Adelanto), Oak Hills High School (Oak Hills), and Options for Youth (Victorville). The teams met with water industry experts in October to learn about how state and federal water quality regulations may not apply to individual domestic well owners. The teams then developed their own creative solutions to the presented problem. Collectively, the solutions included providing well owners with information and affordable water test kits, creative brochures, new apps for smart phones, new statewide well information websites, and other tools that may prove useful. In addition, the event was filmed by Joel Greene and his team from the Public Broadcasting Service’s show *Curiosity Quest*, and the judges were also interviewed on camera for the show. The competition will be featured on the show that is schedule to air in Spring 2022.

5. **Notice of Preparation of a Draft Program Environmental Impact Report for the Adoption of a Regulation for the Hexavalent Chromium Maximum Contaminant Level** – *Amanda Lopez*

The State Water Resources Control Board (State Water Board) and Division of Drinking Water held a virtual public scoping meeting on November 29, 2021, to solicit public consultation on a Notice of Preparation of a Draft Program Environmental Impact Report (EIR) for the Adoption of a Regulation for the Hexavalent Chromium Maximum Contaminant Level (MCL). A brief presentation was given by Office of Chief Council before public comments were heard. The State Water Board is the lead agency under the California Environmental Quality Act (CEQA) and is preparing a Programmatic EIR for the adoption of the regulation. The State Water Board is considering 17 possible MCLs (1 to 15, 20, and 25 micrograms per liter).

The updated timeline for the adoption of the new regulation began with the Draft EIR scoping comments that were due by 5PM on December 6, 2021. The Draft EIR and regulation package will be open for public comment in Spring 2022. The State Water Board anticipates certification of the EIR and approval of regulation in Summer 2022 and the final regulation package approval by the Office of Administrative Law in Winter 2022. The regulation is anticipated to become effective in Spring 2023.

For more information the Project Webpage is here:
https://waterboards.ca.gov/drinking_water/certlic/drinkingwater/Chromium6.html

To sign up for the Drinking Water Program Announcements LYRIS e-mail list go here:
www.waterboards.ca.gov/resources/email_subscriptions/swrcb_subscribe.html

6. Hinkley Dairy Sampling – *Molina Hauv*

In July 2021, Water Board staff sampled residential and agricultural well water to obtain groundwater data near Hinkley Dairy in response to concerns over increasing nitrate as nitrogen (nitrate as N) and total dissolved solids (TDS) concentrations observed in some residential household wells. The increase was observed during routine sampling conducted by the dairy as required by their permit. The sampling performed by Water Board staff was intended to confirm dairy sampling results, assess potential sources causing the increasing nitrate and TDS concentrations, and provide a better understanding of constituent concentrations in groundwater in the area.

Water Board staff Amanda Lopez, Molina Hauv, and John Yu collected groundwater samples from nine residences on July 27th, 2021. Field parameters measured at each well were dissolved oxygen, pH, oxidation-reduction potential (ORP), conductivity, and temperature. Laboratory analyses were conducted for nitrate as N, TDS, general minerals (also sampled periodically by the dairy), Total Kjeldahl Nitrogen (TKN), coliforms, general metals, uranium, and select pharmaceuticals and personal care products (PPCPs).

Table 6.1 shows the sample results for nitrate, TDS, total coliform, and sucralose at each well. These constituents were found at elevated concentrations greater than the regulatory standard (for those with established maximum contaminant levels (MCLs) or the detectable threshold limits.

Site Well	Nitrate as N Milligrams/Liter (mg/L)	TDS mg/L	Coliform, Total Most probably number/100 milliliters (MPN/100 mL)	Sucralose Nanograms/Liter (ng/L)
MCLs	**10 mg/L**	**500 mg/L**	**MPN/100 mL**	**MCL not established**
A	4.5	450	<1.8	ND
B	8.9	590	<1.8	34
1	35	1100	2	99
2A	36	920	<1.8	110
2	23	620	<1.8	21
3	19	540	11	ND
6	2.8	260	<1.8	67
8	8.6	660	<1.8	37
11	6.9	410	2	ND

Table 6.1. Results for Sampled Constituents

The purpose of sampling for PPCPs was to provide information for potential sources of increasing constituent concentrations in the residential wells. Sucralose, an artificial sweetener, was detected at sampling sites east and southwest of the dairy site; Figure 7.1 provides a map of the locations. Samples collected east of the dairy also contained elevated concentrations of nitrate, TDS, and total coliform. Samples collected to the

southwest of the dairy contained sucralose, but did not contain elevated levels of nitrate, TDS, or total coliform.

The nitrate and TDS concentrations of samples collected by Water Board staff were similar to those reported by the dairy in previous sampling events and exceeded the maximum contaminant level for drinking water. Nitrate has been increasing in residential wells A, B, 2A, 2, 3, and 11 during the preceding reporting periods. Results from the July 2021 sampling event illustrate nitrate and TDS ranges similar to those of the dairy's most recent sampling event, confirming the dairy's sampling results. Table 6.2 contains a comparison between the results of the October 2020 and July 2021 sampling events.

	July 2021 Sampling Results		**October 2020 Domestic Supply Well Sampling**	
Site Well	**Nitrate as N (mg/L)**	**TDS (mg/L)**	**Nitrate as N (mg/L)**	**TDS (mg/L)**
MCLs	**10 mg/L**	**500 mg/L**	**10 mg/L**	**500 mg/L**
A	4.5	450	5.2	435
B	8.9	590	7.3	503
1	35	1100	40.1	736
2A	36	920	37.3	764
2	23	620	36	592
3	19	540	23.3	407
6	2.8	260	3.2	269
8	8.6	660	7.3	729
11	6.9	410	7.5	376

Table 6.2. July 2021 and October 2020 Well Sampling Results for Nitrate as N and TDS in milligrams per liter (mg/L)

Prior to sampling, Water Board staff did not expect coliform concentrations to be greater than non-detect. For wells containing coliform, Water Boards staff alerted the affected homeowners as part of disclosing each residence's sampling results to the corresponding homeowner contact. Letters were mailed out to the residents providing information about their well(s) and including a copy of the analytical report.

While the source of nitrate and TDS has been attributed to the dairy, the sources of sucralose and coliforms in the wells are unknown. More extensive sampling, data collection, determination of septic tank locations, and local, historical sucralose usage would be required to better identify the source.

The results of this sampling event highlight the complexity of using existing infrastructure (e.g., residential and agricultural wells) to develop definitive groundwater quality and impact sourcing conclusions. Challenges presented during this sampling event were limited data sets from single sampling events, residential and agricultural wells lacking constructions details, long-screened or potentially multiple-screened intervals in the well casings, difficulty purging residential well storage and pressure tanks, sample points located after the holding and pressure tanks, low detection limits for constituents with high potential of contamination during sampling, and constituents

which may be attributed to more than one source. To further assess the groundwater in the area, Water Board staff may test for additional constituents related to cattle production and perform more water quality sampling in the area.

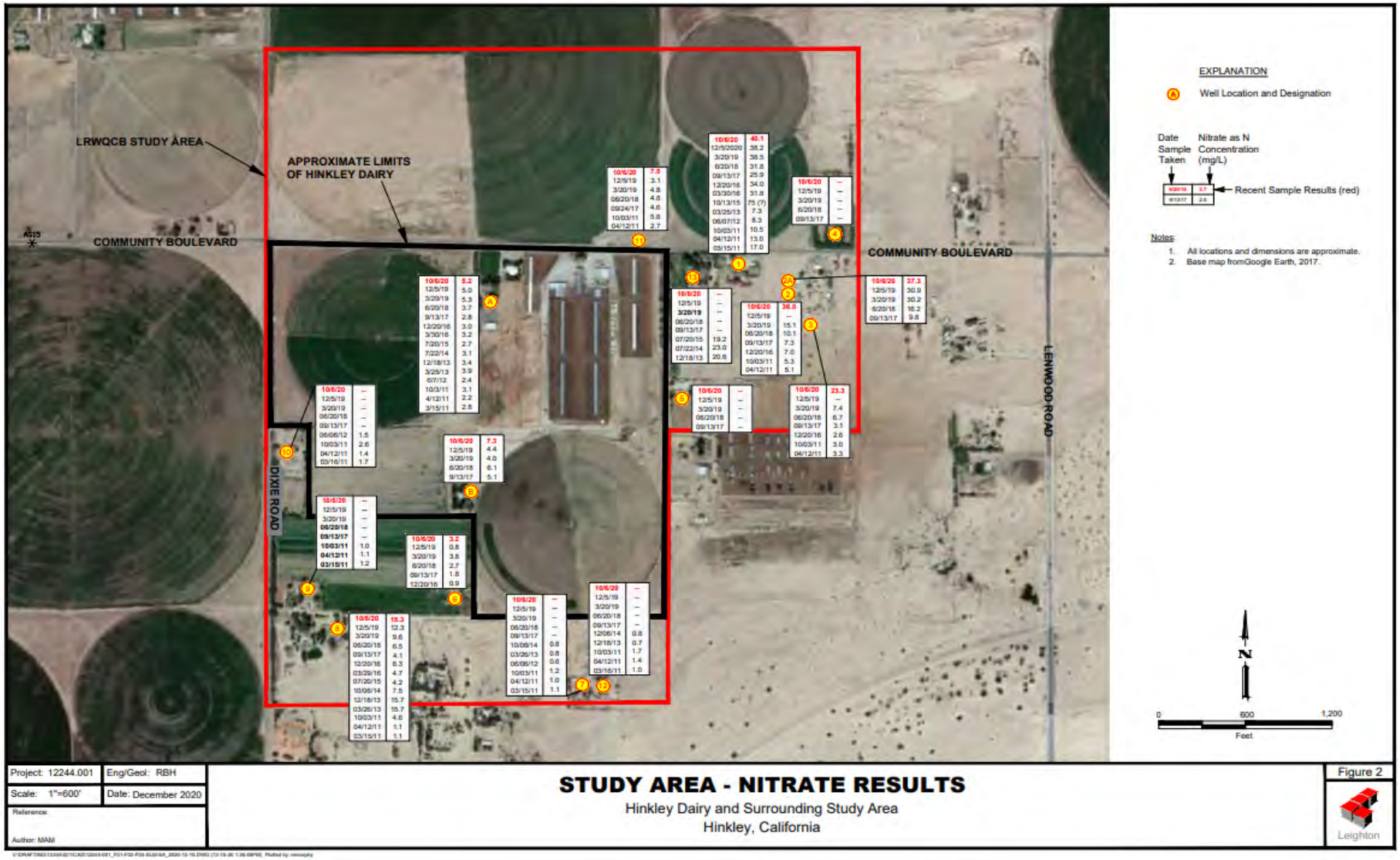

Figure 7.1. Study Area – Nitrate Results for Hinkley Dairy and Surrounding Study Area. This map comes from the October 2020 monitoring report.