EXECUTIVE OFFICER'S REPORT • November 2019
Covers September 16, 2019 – October 15, 2019

Contents

State and Regional

1. Personnel Report – *Eric Shay*

New Hires

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

Vacancies – We are currently recruiting for the following positions:

- Scientific Aid, Planning & Assessment Unit, South Lake Tahoe. This position assists with the collection, preparation, and chemical analysis of water samples; creates maps to display and analyze data; updates TMDL reporting products; and assists staff with data management and analysis tasks.
- Scientific Aid, Cleanup/Site Investigation & Enforcement Unit, South Lake Tahoe. This position assists staff with administering the site cleanup, underground storage tank, land disposal, and enforcement programs; reviewing reports, and maintaining databases; reviews self-monitoring reports for cases, permits and enforcement actions; reviews project files and water quality data to prepare for

field inspections and permit updates; assists with field inspections; and reviews California Environmental Quality Act documents.

- Water Resource Control Engineer, Wastewater and Agricultural Operations 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.
- Water Resource Control Engineer, Non-Point Source Unit, South Lake Tahoe. This position will be part of the Non-Point Source Unit's forest activities program and will be focused on implementing the Water Board's elements of a new law (Senate Bill 901, Chapter 626 Statutes of 2018) that increases the pace and scale of forest fuels treatments.
- Engineering Geologist, Non-Point Source Unit, South Lake Tahoe. This position will be part of the Non-Point Source Unit's forest activities program and will be focused on implementing the Water Board's elements of a new law (Senate Bill 901, Chapter 626 Statutes of 2018) related to forest fuels treatments.
- Environmental Scientist, Non-Point Source Unit, South Lake Tahoe. This position will be part of the Non-Point Source Unit's forest activities program and will be focused on implementing the Water Board's elements of a new law (Senate Bill 901, Chapter 626 Statutes of 2018) related to forest fuels treatments.
- Engineering Geologist, Land Disposal Unit, Victorville. This position will be part of a team that provides regulatory oversight for the land disposal, site cleanup, storm water, and dredge/fill programs in the South Lahontan Basin.

Departures – None

North Lahontan Region

2. Ski Run Marina Laminar Flow Aeration Project – *Russell Norman*

State Water Board members, Water Board and State Water Board staff, and members of the public attended an informational tour of the Ski Run Marina Laminar Flow Aeration Treatment (LFA) system in South Lake Tahoe on September 20, 2019. No Board business items were discussed.

The LFA treatment system is a patented water aeration system installed at Ski Run Marina in Summer 2018 as a pilot project to help determine the effect of laminar flow aeration on aquatic invasive plants and nutrient rich organic layers in bed sediments at the bottom of the marina. The project consultant, Harold Singer, provided a progress report on effects of LFA on aquatic invasive weeds, water quality, and bed sediments in the marina after one year of treatment system operation. (See attachment 2.1)

Preliminary first year monitoring results indicate a significant reduction in all areas treated: aquatic plant cover in the treatment area (71% to 100% reduction compared to 47% increase in the control site); organic bed sediment ammonia concentrations (27% to 93% reduction compared to 44% reduction in the control site); organic bed sediment organic nitrogen concentrations (24% to 85% reduction compared to 91% increase in the control site); and thickness of organic bed sediment (38% to 79% reduction compared to 6% increase in the control site). A full monitoring report for first year results is due in March 2020.

The project proponent is proposing to add several additional air diffusers to the system in 2020 to provide additional treatment at the entrance to the marina.

3. Timber Waiver Monitoring Report Update – *Jim Carolan*

The Water Board's regionwide Timber Waivers require enrollees to conduct effectiveness, winter implementation and forensic monitoring for projects enrolled under the higher threat to water quality categories of the Timber Waiver. Effectiveness monitoring is a visual evaluation of management measures (e.g. erosion control measures) and infrastructure (e.g. watercourse crossings) within the activity area following the winter period, typically between March 15 and June 15, to determine the effectiveness of implemented management measures in preventing sediment discharge to surface water and protecting water quality. Winter implementation monitoring is only required if work was conducted during the winter period (November 15 to April 1) and consists of visual monitoring of management measures in areas where winter operations have occurred. Forensic monitoring must be completed soon after significant rain (> 2-inches) or snow-melt events and consists of visual monitoring of roads, surface waters, watercourse crossings, skid trails, waterbody buffer zones, landings, burned areas, and unstable areas to ensure that management measures and infrastructure are functioning properly, and water quality is protected.

Enrollees, representing 69 projects submitted the required Winter Implementation Monitoring Reports on time. The submitted monitoring reports did not note any water quality issues, resulting in 100 percent compliance.

The Timber Waiver requires project implementers to submit a statement of non-operation and suspension of monitoring if their project has not been operated on during the prior year. For the July 15, 2019 reporting period, 48 of the 69 (70 %) Timber Waiver projects did not conduct operations during the 2019 season. As reported in previous Executive Officer Reports, the high number of projects not in operation are a result of harvesting and processing of salvage logs from burned areas in California outside of the Lahontan Region. Salvage logs from burn areas must be harvested within the first two years of the fire for the logs to have merchantable value. If not harvested within the first two years, the logs lose value because of deterioration and insect infestation. Lumber mills in California are currently processing the significant supply of salvage logs from large wildfires as well as drought and insect infestation related tree mortality.

4. Former PPG Industries Bartlett Plant Remediation Moving Ahead – *John Steude*

The former PPG Industries Bartlett Plant at 800 North Highway 395 in Cartago has been dormant since 1968. The 100-acre property is located on the west shore of the Owens Dry Lake, approximately 10 miles south of Lone Pine. The property was used by PPG Industries as a salt extraction facility, for soda ash manufacturing, and as a chemical recovery and reprocessing facility until it ceased operation in 1968. The facility reportedly shut down due to an emergency water release from the Los Angeles aqueduct, which diluted the brine in Owens Lake to the point of making salt extraction operations unprofitable.

The property was sold to the late Dr. Selwyn R. McCabe, a pioneer in the development of artificial heart valves. Dr. McCabe reportedly conducted some manufacturing of prototype heart valves at the facility. No other industrial processes are reported to have occurred at the facility. Dr. McCabe left the property to the late Marilyn Berger who left the property to the current landowner, Tani Tatum.

The Rural Desert Southwest Brownfields Coalition (RDSBC) obtained permission from Tani Tatum to conduct a Phase I Environmental Assessment which was completed in July 2012. A Phase II Environmental Assessment was completed in January 2014. During the Phase II Assessment, the presence of Total Petroleum Hydrocarbons (TPH),

volatile organic compounds, asbestos and lead-containing material were confirmed. A fuel underground storage tank (UST), which may have leaked was also located. A cleanup and reuse plan were scheduled for 2014 but had to be postponed due to a lack of funding.

The UST issue was referred to the Water Board in March 2014 and has been handled as a cold case in need of additional resources for cleanup and reuse efforts to proceed. Existing Water Board resources and progress at other cleanup sites have allowed staff to begin working on this case again. Water Board staff issued a Notice of Responsibility letter to PPG Industries and Tani Tatum on June 6, 2019. The letter included a request for a work plan to conduct remedial tasks to clean up the site. Upon learning of the site's condition from the Phase II Environmental Assessment and that no other industrial practices had occurred onsite since 1968, PPG staff expressed an immediate interest in doing their part to clean up the site, if PPG could access the site. When contacted, Tani Tatum expressed interest in providing PPG access to the site.

Water Board staff anticipates being able to address site cleanup in a cooperative manner, based upon both responsible parties' willingness to proceed with cleanup on a voluntary basis. Additionally, a stakeholder group has been formed to: 1) help plan cleanup work tasks for multiple pollutants and media, 2) provide continuity between the site characterization phase and the remediation phase of the project, and 3) provide criteria for a successful remediation project. Members of the stakeholder's group include PPG, Tani Tatum, Inyo County, RDSBC, BEC Environmental, McGinley and Associates, the Water Board, and the Great Basin Unified Air Pollution District. This group represents the responsible parties, environmental consultants, and agencies that have jurisdiction over cleanup activities involving multiple pollutants and media. The stakeholder's group's first meeting is scheduled for November 2019.

Figure 4.1 PPG Industries Bartlett Plant

5. Leviathan Mine Tour - *Scott Ferguson*

State Water Board members, Lahontan Water Board members, Water Board staff and management, and members of the public attended an informational tour of the Leviathan Mine Superfund site in eastern Alpine County on September 20, 2019. No Board business items were discussed.

Figure 5.1 - Leviathan Mine tour attendees

The Leviathan Mine is a historical open pit sulfur mine that closed in the early 1960s. Exposing the underlying geology to the atmosphere and water created conditions generating acid mine drainage from multiple sources that flows into Leviathan Creek. The acid mine drainage has a low pH and high dissolved metals concentrations that adversely affect the water quality and beneficial uses of Leviathan Creek and downstream waters. Leviathan Creek is tributary to Bryant Creek, which flows into the East Carson River. In 1984, the State of California purchased the mine site and surrounding property and completed a pollution abatement project in 1985 to help begin addressing the mine site's pollutant discharges and adverse impacts to beneficial uses.

Figure 5.2 - Leviathan Mine warning sign

During the tour, Water Board staff explained how the Water Board and Atlantic Richfield are under United States Environmental Protection Agency (USEPA) Orders to capture and treat acid mine drainage from five sources at the mine site. Staff described the Water Board's year-round capture system (lined ponds constructed in 1984-1985) and seasonal treatment system that has been in operation since 1999, treating acid mine drainage from the mine site's two most polluted sources (Adit and Pit Underdrain). Staff also discussed how Atlantic Richfield seasonally (typically May – October) captures and treats acid mine drainage from two other nearby sources (Channel Underdrain and Delta Seep) using high density sludge technology. Both treatment systems rely upon lime addition and produce a sludge that is transported to disposal facility in Beatty, Nevada. Staff also briefly discussed Atlantic Richfield's Aspen Seep Bioreactor system that provides year-round capture and treatment of the Aspen Seep, the fifth primary acid mine drainage source. The bioreactor treatment system incorporates a biochemical technology.

Staff updated tour participants regarding where the USEPA, Water Board, and Atlantic Richfield are in the CERCLA process for the Superfund site. The discussion focused on the Early Final Remedial Action the parties are developing to provide year-round capture and treatment for reducing concentrations of specific metals from the five, and possibly a few additional acid mine sources using a single treatment system.

Staff explained that pursuant to a Settlement Agreement between the State of California and Atlantic Richfield, the Water Board would be responsible for designing, constructing, and operating the new treatment facility, and eventually other final remedial actions at the site. While constructing the new treatment system, the Water Board will also become responsible for operating all three existing treatment systems. Staff further explained that the State Water Board system does not currently have the responsive and flexible funding and contracting tools necessary for such capital outlay projects, but that staff is working with State Water Board staff and staff from other agencies to explore and develop such tools.

South Lahontan Region

6. **Antelope Valley Integrated Regional Water Management Group Meeting –** *Tiffany Steinert*

The Antelope Valley Integrated Regional Water Management (IRWM) group held a stakeholder meeting in Palmdale on October 2, 2019 to discuss the IRWM Plan updates. The meeting was organized and attended by members of the Antelope Valley IRWM group, as well as Water Board staff, Tiffany Steinert, Engineering Geologist.

The meeting began with a presentation by the consultant, Woodard and Curran, providing an overview of the changes to the upcoming IRWM Plan update. The group was informed that the IRWM Plan updates were nearly complete and ready for review by the group. The plan updates include changes to the following sections: Antelope Valley Adjudication – native safe yield and total safe yield; Water Supply & Demand Analysis – urban demand; Objectives – dates extended through 2040; and Projects – reflects current projects. Woodard and Curran requested to have only a few individuals review the updates to the plan to shorten the comment turnaround time. The group agreed to have five people consider the updates and provide comments on the groups' behalf.

The most important point made by Woodard and Curran during the meeting was that the water model used for the IRWM plan predicts that by the year 2030 demand will exceed supply due to population growth. Woodard and Curran did state that their water model did not include any water projects that are currently under construction and suggested that new housing developers be required to provide funding for additional State Water Project water to meet the new demands. Many in the group were optimistic that recycled water reuse projects would cover the predicted water shortage.

The meeting concluded with the Antelope Valley IRWM group learning of the passing of one of its members, Rich Campbell. Rich Campbell was a member of the A-Team and held the Conservation, Environmental, and Water Quality seat. Each A-Team representative holds a position for three years and typically has a designated stand-in if the elected representative is not available. However, Mr. Campbell had no designated stand-in, and the group has yet to vote on his replacement. The next Antelope Valley IRWM meeting will be held on January 15, 2020.

7. **Inyo-Mono Regional Water Management Group Stakeholder Meeting –** *Jeff Fitzsimmons*

The Inyo-Mono Regional Water Management Group (RWMG) held its quarterly scheduled stakeholder meeting on September 25, 2019. The meeting was held at the June Lake Community Center. These stakeholder meetings allow representatives and citizens of the Inyo-Mono RWMG area to voice their concerns and provide an opportunity for discussion and collaboration of efforts to manage regional water issues, taking into consideration social and economic concerns. Jeff Fitzsimmons, Engineering Geologist from the Victorville office, attended this meeting.

Updating the Integrated Regional Water Management (IRWM) Plan of October 2014 to address water quality, climate change, and storm water management has been an ongoing effort by the Inyo-Mono RWMG for the past 12 months. On September 11, 2019, the Draft Updated Integrated Regional Water Management (IRWM) Plan became available for review and comment. The Inyo-Mono RWMG has identified portions of the draft plan for further revisions and anticipates adopting the updated IRWM Plan at a future stakeholder meeting.

At the meeting, stakeholders also discussed the current Inyo-Mono IRWM membership and participation of members, the statuses of current projects and proposed Proposition 1 and Proposition 84 Implementation Grant funding opportunities, prioritizing projects for future grant proposals, and the Governor's water resilience portfolio. The next RWMG meeting will occur December 2019 or early January 2020.

8. **Inyo-Mono County Integrated Regional Water Management Planning Group Meets to Discuss Governor Newsom's Goal of Water Supply Resiliency –** *Tom Browne*

On September 4, 2019, the Inyo-Mono Integrated Regional Water Management (IRWM) Group held a public meeting at the Bishop Paiute-Shoshone cultural center to share ideas on how to achieve water supply resiliency as described in Governor Gavin Newsom's Executive Order N-10-19. Lahontan Water Board staff Tom Browne, Water Resource Control Engineer in the Victorville office, attended the second session and Cindy Wise of the South Lake Tahoe office attended both sessions. The discussion was moderated by Dr. Holly Alpert, head of the Inyo-Mono Integrated Regional Water Management Group. Attendees of the second session included Fred Stump, Mono County Board of Supervisors for over 20 years; Jason Canger, Deputy Mono County Counsel; Aaron Steinwand, Director of Inyo County's water department; and other residents of Bishop. Absent from both meetings were representatives from the Los Angeles Department of Water and Power (LADWP), the largest landowner and water rights owner in Inyo and Mono counties. All attendees agreed that LADWP should be participating in the meeting.

Jason Canger interpreted the Governor's resolution as a call for state agencies, counties, and water purveyors to work together on this. Aaron Steinwand of Inyo County Water wants to know if funding assistance will come from the State, as Inyo County anticipates they will need to drill additional, deeper wells to have on stand-by in case of a drought. Attendees agreed that most water utilities in the east Sierra are strapped for money just to maintain the water quality and water infrastructure they already have. The fear to water utilities is that every new contaminant discovered will result in costly analyses to prove these contaminants are not in their water supplies. Both attendees from Mono County are worried that the resiliency portfolio could turn into an unfunded mandate by the State.

One attendee asserted that water resiliency should be achieved locally; he believes that coastal cities – which is where most of California's population lives – should not "steal" water from inland sources such as the Bay Delta or the Sierra Nevada. He asserted that large water purveyors like LADWP should invest in desalination plants and have them on stand-by in case of a drought. The Department of Water Resources granted $34 million last year to fund eight existing or new desalination plants, all along the coast.

After two hours of discussion, Dr. Alpert asked each attendee what they believed is the best way to achieve water supply resilience in the next drought. The suggestions included the following:

1. Need to *incentivize* LADWP to be an active stakeholder at these discussions.
2. Give LADWP a big pot of money to improve infrastructure so in times of drought, they have deeper wells and canals they can open to augment water supply, and in heavy snow years, they can protect their dust mitigation measures on Owens Lake from flooding.
3. Need legislation to protect small east Sierra watersheds from exploitation in times of drought.
4. Create a state-funded and state-maintained database that includes water levels, water supply, and water quality so small purveyors (like Inyo County) can quickly assess groundwater depletion or evaluate/site new well locations.

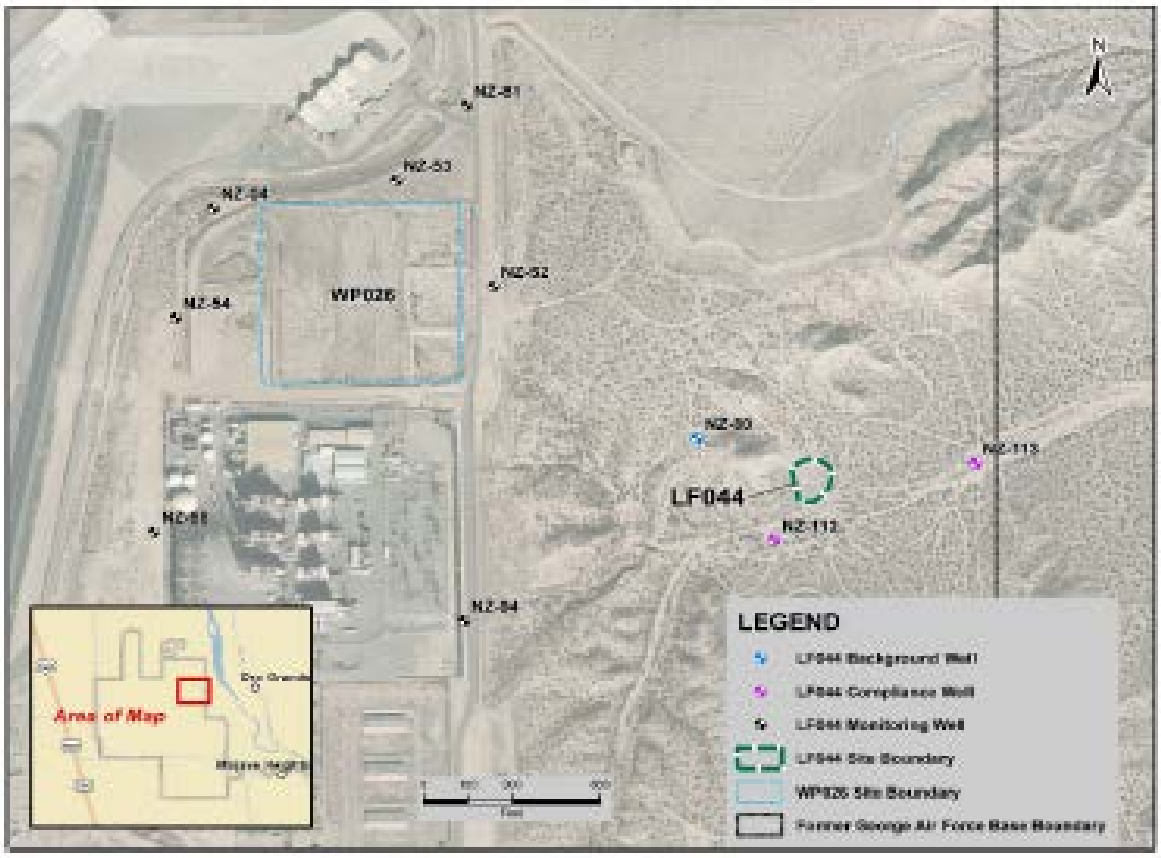
9. Former George Air Force Base, Victorville, San Bernardino County Record of Decision Amendment – *Linda Stone*

The Air Force has submitted an amendment to the 1998 Record of Decision (ROD) for Operable Unit 3, former George Air Force Base. The ROD amendment will change the remedy for LF044, a landfill site, from land use controls, as specified in the 1998 ROD, to clean closure through removal and offsite disposal of the landfill waste. Prior investigations of the 0.4-acre landfill revealed that the site consists mainly of inert rubble and construction debris. The investigations did not find evidence that the landfill had caused contamination of soil or groundwater. The ROD amendment is expected to be signed in late 2019.

The goal of the removal and offsite disposal is to excavate and remove all landfill debris and any soil that exceeds risk-based-screening levels, threat to groundwater criteria, or background levels so that the site can be closed without restrictions on future uses. The site closure will be conducted in accordance with California Code of Regulations, title 27, requirements for clean closure of landfills.

After the ROD amendment's approval by the U.S. Environmental Protection Agency and concurrence by the Water Board, the Air Force will implement the removal and disposal actions necessary to achieve clean closure of the landfill. Water Board staff will work with the Air Force to support the clean closure effort and ensure that all actions are protective of human health and the environment.

Aerial Photograph (2010) with the LF044 Site Boundary



Note: LF044 monitoring wells are screened in the Lower Aquifer.

Figure 8.1 - Former George AFB 1

10. San Bernardino County Environmental Task Crimes Strike Force Meeting – *Jeff Fitzsimmons*

On October 10, 2019, Jeff Fitzsimmons, Engineering Geologist with the Water Board's Victorville office, attended the San Bernardino County Environmental Crimes Strike Force Meeting (Strike Force) at the offices of Community Safety and Hazardous Materials Division of the San Bernardino County Fire Department. Those in attendance at the meeting included representatives from the San Bernardino County Deputy District Attorney's Office, San Bernardino County Fire Department, California Department of Toxic Substances Control, and California Department of Fish and Wildlife.

Cases discussed during the meeting have been ongoing for several months or longer, pertain to individual or collective business locations within San Bernardino County (County), and in some instances, are part of a larger statewide investigation. Threats to the environment discussed during the meeting included willful and prolonged neglect cases related to discharges to air, water, and soil associated with commercial, industrial, retail, and illegal disposal of hazardous wastes at various locations within the County.

The Strike Force meetings had previously been held monthly to provide a forum where representatives of city, county, state, and federal governments could be briefed regarding any new and pending cases within the County. Beginning February 2018, the scheduled Strike Force meetings changed to occur every other month to avoid conflicts with similar such meetings held in Riverside County that occur during odd numbered months. The bi-monthly meetings continue to promote networking, sharing of thoughts

and ideas, strategizing, and partnering in efforts to successfully protect the environment. Awareness training with respect to pertinent topics at future meetings will be discussed during the next Strike Force meeting, which is scheduled for December 12, 2019.

11. Edwards Air Force Base Explanation of Significant Differences, Kern County,– *Alonzo Poach*

Site 29 on Edwards Air Force Base is a historical waste disposal area where the types and locations of buried wastes were poorly documented. The Site 29 landfill (Figure 10.1) accepted waste at Edwards AFB from the early 1930s until the early 1970s. In June 2009, the Operable Unit 2 Record of Decision (ROD) was signed by the Air Force and regulatory agencies. The 2009 ROD selected a “close in place” remedy for Site 29.

At the time of the ROD, much of the land surface of the site was buried beneath concrete and construction rubble. The volume of buried waste beneath the rubble was estimated to be 490,000 cubic yards. After removal of the concrete rubble from the land surface and the subsequent geophysical investigations and trench studies indicated that the quantity of buried wastes at Site 29 is only 21,711 cubic yards. Based on the significantly reduced volume of waste estimated during the post-2009 ROD design work, the Air Force prepared a ROD amendment to clean close the site. In July 2012, the OU2 Site 29 ROD amendment was finalized and signed documenting clean closure as the selected remedy for Site 29 due to the revised waste volume estimates. Many of the waste cells were burned (a common practice for landfills of the era) and did not show up in the geophysical methods used to delineate the landfill extent prior to the July 2012 ROD amendment.

Subsequent to the 2012 ROD amendment, additional pre-remedial design investigations commenced and found the waste volumes to now be estimated at approximately 106,000 cubic yards. The map below shows the current estimated aerial extent of waste at Site 29. This Site 29 Explanation of Significant Differences (ESD) proposes reverting back to a “close in place” remedy, as originally proposed in the 2009 ROD.

Staff have evaluated the Site 29 ESD and provided comments on the document to the Air Force. All outstanding comments with the document have been addressed and staff recommend that the Water Board concur on the document and approve it for Executive Officer signature. Finalization of the ESD and a request for signatures are expected first quarter of calendar year 2020.

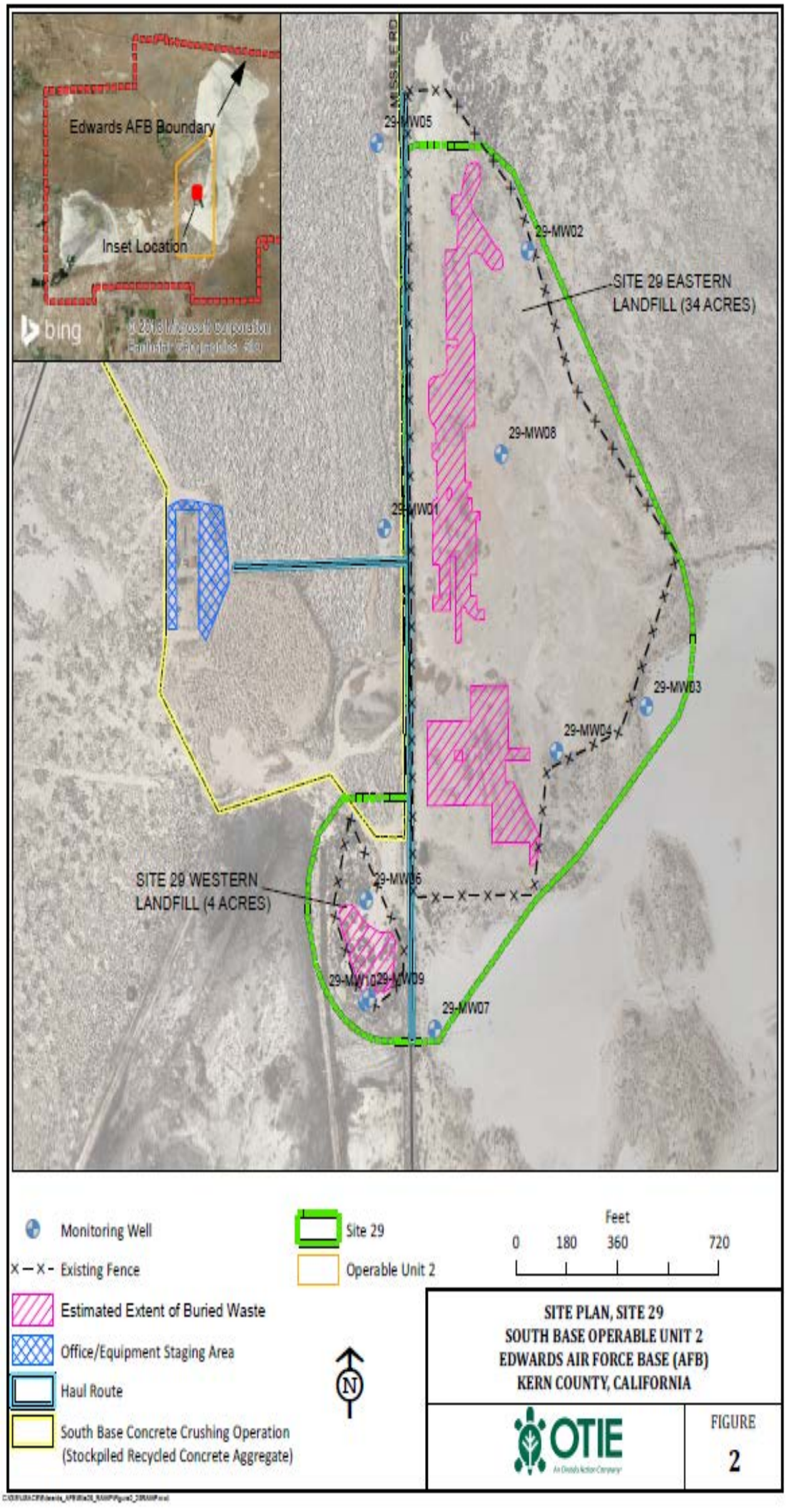


Figure 10.1 - Edwards AFB Site 29 1

12. 15th Annual CASQA Conference – *Sergio Alonso*

During October 7-9, 2019, Water Board staff, Sergio Alonzo, Tom Browne and Elizabeth van Diepen, attended the 15th Annual California Stormwater Quality Association (CASQA) Conference. This year's Conference was held at the Monterey Conference Center and had over 1,000 attendees associated with state and federal agencies, businesses, and municipalities. Over the span of three days, stormwater professionals conducted panel sessions, training workshops, and technical presentations on the latest developments in the stormwater world.

Some of the topics covered during the Conference dealt with the aftermath following wildfires. Discussions included addressing pollutants of concern from both natural and anthropogenic sources following a wildfire and the assessment of hydraulic changes due to flooding and debris flow. Presentations included the incorporation of drone technology for wildfire assessment and erosion response planning. Benefits of drone use for wildfire assessment include improved health and safety of wildfire responders and the ability to develop three-dimensional structural maps of the affected areas.

Other topics covered during the Conference were the integration of both stormwater and wastewater systems to address wet and dry weather flow management. The Sewer Authority Mid-Coastside in Half Moon Bay, California, has developed a wet weather flow management project that consists of a storage facility for sewage water if the inflow rate of the downstream pump station exceeds pumping capacity. The use of the wet weather storage facility will help reduce sewer overflows and provide flow equalization for the treatment plant receiving sewage from the pump station. This example may be relevant to San Bernardino County mountain communities and other communities throughout our region.

Stormwater outreach and education efforts were presented. The University of California at San Diego, and consultants, have developed a middle-school level curriculum on stormwater that informs students and teachers about green infrastructure, water quality, and planning. The curriculum consists of a one-hour exercise where students learn about stormwater runoff and then draw green infrastructure plans for their schools and neighborhoods with iPads. Each of the students' plans are evaluated to determine how much water would be captured by each plan. Exercises like this are intended to draw student interest in careers in water quality, public works, engineering, software, and planning.

The above-mentioned examples were part of a diverse abundance of topics that were available at the Conference. The 2020 CASQA Conference is scheduled to take place September 14-16 in San Diego.