



Executive Summary

NPDES Permit Renewal:

District Submits Report of Waste Discharge for New 5-Year Permit

Sewer Surveillance for SARS-CoV-2:

BVWD Tests Treated and Untreated Wastewater for the Presence of SARS-CoV-2

BVWD Partners with Tesla for Backup Battery Power Packs:

Self-Generation Incentive Program Provides Equity Resiliency Incentives for Critical Infrastructure

Fats, Oil and Grease "FOG":

Disposal Alternatives

The Problem-High Levels of Salt

Salinity Issues in Central Valley Highlight Why Wastewater Agencies Need to Educate Customers across California

Board Appoints Environmental Engineer to Fill Vacancy:

Diane Lundquist Lends her Technical and Regulatory Experience to Support Bear Valley

DISTRICT SEEKS 2021 NPDES PERMIT RENEWAL WITH RECENT APPLICATION

The Bear Valley Water District maintains two discharge permits for the disposal of wastewater effluent collected and treated at the District's treatment facility. While waste discharge order #5-01-208 prescribes effluent disposal to land and last required renewed in 2001, the District's Order R5-2016-0045 prescribes effluent disposal to surface waters and must be renewed every 5 years.

As requested by the Central Valley Regional Water Quality Control Board in its April 28, 2020 letter, the District submitted its Report of Waste Discharge (ROWD) and supporting information for renewal of Waste Discharge Requirements Order No. R5-2016-0045 (NPDES No. CA0085146), permitting the District's Wastewater Treatment Facility (WWTF) discharge of treated wastewater (termed "effluent") to Bloods Creek.

The District applied for its first to Bloods Creek in 2018 and 2019. Dedicated surface discharge permit in April 2004 following a cease and desist order issued by the Regional Water Quality Control Board that limited new construction in Bear Valley with its current permit. Most critically, the District's 2016 permit removed certain discharges in the late 1990's. Order R5-2005-0139 was ultimately awarded to the District in October 2005 and the District secured funding and initiated construction of the necessary discharge infrastructure in 2007.

Over the ensuing 10 years the District continued to complete the outfall project as well as address discharge requirements imposed by the Water Board. In 2016, the District was finally awarded its best permit to date, Order R5-2016-0045.

In April 2017, the District performed its first surface water discharge without issue and again discharged

and those elements of previous permits that remain of value to Bear Valley's long term sustainability.

BVWD PURSUES TESTING WASTEWATER FOR SARS-CoV-2

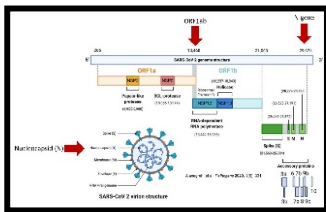
Following concerns raised by community members about the potential presence of the novel coronavirus in Bear Valley, the Bear Valley Water District Board authorized District Staff to pursue testing the waste stream for SARS-CoV-2 in August.

Wastewater-based epidemiology (WBE), or sewer surveillance, is a rapidly growing field first employed to study the prevalence of illicit drug use in communities and eventually expanding to detect viruses such as polio and hepatitis A in wastewater. More efficient than testing for infection individually, testing wastewater for SARS-CoV-2 has been identified as a cost-effective way to detect and track regional COVID-19 outbreaks.

Since March, both large and small cities and agencies across the

country, including East Bay MUD and New York City as well as agencies in Colorado and Ohio, have partnered with a variety of universities including the University of Arizona, Stanford, UC Berkeley and the University of South Carolina to protect public health through early detection of the virus in wastewater.

As early as late May, Mariposa County, which manages treatment facilities that service Yosemite Valley, first started studying its sewage to track the virus, contracting with the Boston based private-sector lab Biobot. After weeks of sampling, the agency received its first positive results Monday after July 4 weekend. Mariposa plans to continue testing through January at a total cost of \$88,000. In August, after contacting several laboratories, BVWD elected to contract with COSMOS-ID, another leading private epidemiology lab based out of Rockville, Maryland, to evaluate samples from the Bear Valley wastewater collection system. In addition to sampling and testing raw untreated wastewater for evidence of virus shed in the waste stream, the District also believed there was value in testing treated wastewater to confirm that its disinfection process was effectively neutralizing the virus. Samples were collected by District staff on August 18 and shipped overnight via FedEx to COSMOS-ID. On August 30, COSMOS-ID, utilizing the RNA Reverse Transcriptase quantitative PCR method (RT-pPCR), reported that there was no evidence of the virus in either sample. On August 17, the CDC together with the US Health and Human Services Department also initiated the National Wastewater Surveillance System (NWSS).



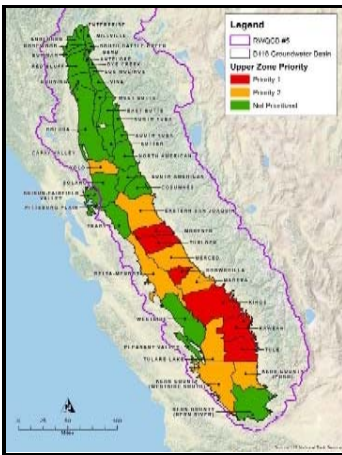
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BVWD QUALIFIES FOR EQUITY RESILIENCY INCENTIVES TO INSTALL TESLA POWER PACKS



DIANE LUNDQUIST



California’s rate-payer funded Self Meanwhile, the Power Safety Shutoff These “equity resiliency incentives” Generation Incentive Program (SGIP) is Program (PSPS) initiated by Pacific Gas & funded through the SGIP program one of the longest-running and most Electric (PGE) in 2019 to mitigate the risks became available to agencies located successful distributed generation of wildfires ignited by the power grid in a Tier 2 or Tier 3 high fire threat incentive programs in the country. The during high wind - low humidity events in districts (HFTD), who provide critical SGIP was initially conceived of as a California has had enormous adverse infrastructure and were subject to peak-load reduction program in impacts on both residents and businesses two or more PSPS events. response to the energy crisis of 2001. across the state. However, the impact of multiple days without electricity has Working with Tesla Commercial SGIP was significantly modified in 2016 perhaps been most acutely felt by critical Energy Storage, an analysis of to reflect changing conditions and infrastructure facilities including BVWD’s energy demand at its priorities with respect to the program. hospitals, police and fire stations as well treatment facility determined that, The changes included the allocation of as water and wastewater facilities. with annual consumption of 156,000 75% of the incentive budget to energy kWh and peak demand of 118 kW, storage projects. To this end, on May In an effort to support the needs of the District indeed qualifies for up to 26, 2020 the California Public Utilities vulnerable communities and critical three Tesla power packs. Commission (CPUC) made over \$600 infrastructure not entirely prepared to BVWD contracted with Tesla storage “to help Californian’s save during these extended events, cash Commercial in May 2020 and is now money and stay safe during wildfire- incentives to cover the full cost of awaiting release of another round of related power outages” in vulnerable installation were made available to the funding to proceed. Installation is communities. critical infrastructure sector. anticipated during summer 2021.

CALIFORNIA’S GROWING SALINITY CHALLENGES

High levels of salt in California’s levels threaten to turn this productive As a reminder, fats, cooking oils, and Central Valley have impacted basin into a land where the water is not fit grease (FOG) can coat and clog pipes and cause sewer lines to back-up into drinking water and reduced crop to drink should reminds all of us to and cause sewer lines to back-up into production. In addition to irrigation minimize contributing extraneous salt into homes. “FOG” can also cause and food processing, even in the the wastewater system. blockages further down sewer lines the best of circumstances, long-term BVWD would like to remind customers that creating system overflows as well as discharge of treated municipal each user be conscientious of what is disrupt waste water treatment wastewater will eventually degrade flushed down toilets and sinks. Human processes with detrimental results. groundwater with salt and the waste and chemicals such as soaps and Instead of pouring fats, oil, grease or individual components of salts (e.g. detergents from cleaning all belong in the placing greasy foods down the garbage sodium, chloride). The District is sewer. However, products including disposal or drain, dispose properly by currently in compliance with water unused cleaning products, food waste, disposing of cooking oils and grease with your trash. Practicing safe disposal quality objectives for salinity but and anti-freeze belong in the landfill and of FOG is better for your pipes and for lessons learned from communities in the Central Valley where rising salt not in the wastewater system. wastewater disposal operations.

BVWD BOARD OF DIRECTORS WELCOMES DIANE LUNDQUIST TO THE BOARD

Following the resignation of Director engineering and electrical and Diane is a retired civil engineer who holds Stefaniya Becking which became mechanical automation. No time in Professional Engineering licenses in California effective January 21, 2019, the recent memory has the Board had the and six other states. Her primary area of District Board, adhering to California luxury of considering more than one practice was in environmental issues, helping Government Code Section 1780, qualified applicant. Yet, in the end, the clients navigate technical and regulatory sought to fill this vacancy by Board voted to appoint long time Bear requirements with the Regional Water Valley homeowner Diane Lundquist to Quality Control Board and other government the term ending December 2021 at its agencies. Diane owned and operated an environmental consulting business for 14 years and subsequently became a Principal appointment within 60 days.

The District initiated a search for a March 15, 2020 public meeting. environmental consulting business for 14 years and subsequently became a Principal qualifying appointee, posting notice of the vacancy around Bear Valley, Diane and her wife Noël began visiting and Director for an international engineering e-blasting our database of nearly Bear Valley regularly in 1997 and have firm. Diane retired in 2019 after over 30 3000 recipients and including an been homeowners since 2000. While years in the industry. article in the Cub Reporter. These maintaining a residence in Oakland, While with the coronavirus Diane has yet to efforts yielded responses from (3) they consider Bear Valley to be attend her first in person Board meeting, she very qualified candidates with “home,” and cherish the beauty, range attend her first in person Board meeting, she expertise in a range of relevant fields of activities, and the true sense of has already contributed substantially on a including finance, environmental community it affords. host of important issues attending remotely.