

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION  
ORDER R5-2021-0010  
AMENDING WASTE DISCHARGE REQUIREMENTS ORDER R5-2006-0019  
FOR  
EL DORADO COUNTY  
UNION MINE SEPTAGE/LEACHATE TREATMENT FACILITY  
EL DORADO COUNTY

The California Regional Water Quality Control Board, Central Valley Region (hereafter Central Valley Water Board), finds:

**Waste Discharge Requirements Order R5-2006-0019**

1. On 26 January 2006, the Central Valley Water Board adopted Waste Discharge Requirements (WDRs) Order R5-2006-0019, prescribing requirements for Union Mine Septage/Leachate Treatment Facility (Facility) in El Dorado County. El Dorado County (hereafter Discharger) owns and operates the facility.
2. The facility consists of aerobic digesters, a sludge centrifuge, a disinfection system, an effluent storage tank, and land application areas (LAAs). Secondary disinfected treated wastewater from the facility is discharged to either the on-site LAAs via sprinklers or sent for further treatment to the El Dorado Irrigation District (EID) Deer Creek Wastewater Treatment Plant (WWTP), which is regulated under Municipal General NPDES Order R5-2017-0085-006, which allows discharge up to 3.6 million gallons per day (MGD, as an average dry weather flow) of treated wastewater to surface water.
3. Discharge Specification B.1 of WDRs Order R5-2006-0019 allows a monthly average inflow of 10,500 gallon per day (gpd) to the facility. In addition, if the Discharger obtains a permit with EID to discharge wastewater to the EID Deer Creek WWTP, then the Discharger may submit a report to the Executive Officer, and upon approval, the Executive Officer may increase the flow limit up to a monthly average of 16,000 gpd. On 1 October 2009, the Discharger obtained EID Permit DC 09-155, which allows the facility to discharge treated wastewater to the EID Deer Creek WWTP with a maximum flow rate of 144,000 gpd. On 3 May 2010, the Discharger requested to increase the monthly average inflow limit from 10,500 to 16,000 gpd. On 17 June 2010, the Central Valley Water Board approved this request. Therefore, WDRs Order R5-2006-0019 contains the monthly average inflow limit of 16,000 gpd.
4. Finding 22 of WDRs Order R5-2006-0019 states: During a 19 September 2005 inspection of the WWTF, staff noted excessive vegetation growth on the water surface within the effluent storage tank. Excessive vegetation can reduce the amount of storage capacity within the effluent storage tank, and can cause nuisance conditions. This Order requires the Discharger to remove the vegetation growth within the storage tank.

5. Provision D.1. a. through h. of WDRs Order R5-2006-0019:

- a. At **least 45 days** before the Discharger wishes to increase the monthly average influent flows, the Discharger shall submit a report showing that it has obtained a permit with EID to discharge surplus effluent to the EID Deer Creek WWTP. The report shall (1) provide a copy of the permit, (2) describe how much wastewater EID will accept on a monthly average and annual basis, and (3) provide a revised water balance (for the 100 year annual precipitation conditions) showing how much wastewater the WWTF can treat, store, dispose of based on the discharge to EID system.
- b. At least **90 days** before the Discharger wishes to use the landfill gas flare unit as a means of disposing of wastewater, the Discharger shall submit a report showing what improvements have been made to the gas flare unit, and how discharge of wastewater into the unit will not impact the underlying groundwater or surface waters.
- c. By **15 February 2006**, the Discharger shall submit a report certifying that the second two-million-gallon aboveground storage tank has been installed.
- d. By **1 March 2006**, the Discharger shall submit a report certifying that it has either installed an influent flow meter to monitor leachate flows entering the WWTF, or has repaired the pump station such that leachate flows can be metered through the pump station. The report shall show that the meter(s) is operating and accurately recording all influent flows.
- e. By **15 March 2006**, the Discharger shall submit a *Groundwater Monitoring Well Installation Workplan*. The workplan shall describe the installation of sufficient wells to allow evaluation of the groundwater quality upgradient of the sprayfield disposal areas. The workplan shall conform to items listed in Section 1 of Attachment C (Items to be Included a Monitoring Well Installation Workplan) to this Order, including a *Groundwater Sampling and Analysis Plan*.
- f. By **15 May 2006**, the Discharger shall submit a *Groundwater Monitoring Well Installation Report*. The report shall be consistent with, and include the items listed in, the second section of Attachment C of this Order. The report shall describe the installation and development of the monitoring wells, explain any deviation from the approved workplan, and clearly show that Discharger has the expertise and equipment necessary to collect groundwater samples. Alternatively, the report may describe the qualified consultant that the Discharger will use to collect groundwater samples.
- g. By **1 August 2006**, the Discharger shall submit a report certifying that all of the vegetation within the effluent storage tank has been cleaned out and removed.
- h. By **30 June 2008**, the Discharger shall submit a *Background Groundwater Quality Study Report*. For each groundwater monitoring parameter/constituent identified in

the MRP, the report shall present a summary of monitoring data, calculate the concentration in background monitoring wells, and compare background groundwater quality to that in wells used to monitor the facility. Determination of background quality shall be made using the methods described in Title 27, Section 20415(e)(10), and shall be based on data from at least four consecutive quarterly (or more frequent) groundwater monitoring events. For each monitoring parameter/constituent, the report shall compare measured concentrations for compliance monitoring wells with: 1) the calculated background concentration, and 2) the interim numeric limitations set forth in Groundwater Limitation F.1.a. Where background concentrations are statistically greater than the interim limitations specified in Groundwater Limitation F.1.a, the report shall recommend final groundwater limitations for waste constituents listed therein. Subsequent use of a concentration as a final groundwater limitation will be subject to the discretion of the Executive Officer.

### **Proposed Amendment**

6. On 28 August 2020, the Discharger submitted a request to increase the influent flow limit from 16,000 to 20,000 gpd as a monthly average. This Order authorizes this increase. In addition, the Discharger may submit a request to the Executive Officer, and upon approval, the Executive Officer may authorize increasing the influent flow limit up to the disposal capacity of 22,000 gpd.
7. Finding No.4 should be updated with the new WDRs order number for Union Mine Landfill.
8. Findings No.6 and No.9 should be updated to allow accepting portable toilet waste.
9. Finding No.7 should be updated with two effluent storage tanks instead of one storage tank and two centrifuges instead of one centrifuge.
10. The sentence in Finding No.14 "Liquid from the digesters is transferred to the effluent storage tank" should be deleted.
11. Finding No.15 should be updated allowing transport of digested sludge off- site to a permitted facility.
12. Finding No.16 should be updated with two effluent storage tanks instead of one storage tank.
13. Finding No.17 should be updated with the current disinfection practice.
14. Findings No.20 and 21 should be updated with the revised water balances.
15. Finding No.22 should be deleted because the Discharger has completed the tasks. Findings No.23 through 68 should be renumbered as Findings No.22 through 67, respectively.

16. Finding No. 29 should be renumbered as No.28 and be updated regarding high density polyethylene piping.
17. Finding No. 38 should be renumbered as No.37 and be updated with existing monitoring well conditions.
18. Policy of Salt and Nitrate Control Programs shall be added to the WDRs.
19. Discharge Prohibition A.3. of WDRs Order R5-2006-0019 shall be amended allowing discharge of treated water to the Deer Creek WWTP.
20. Discharge Specification B.1. of WDRs Order R5-2006-0019 shall be amended allowing flow limit increase as requested.
21. Discharge Specification B.3. of WDRs Order R5-2006-0019 shall be amended allowing discharge of treated water to the Deer Creek WWTP.
22. General Solids Disposal Specification E.4. of WDRs Order R5-2006-0019 shall be amended allowing discharge of solids to Union Mine Landfill or off-site disposal to a permitted facility.
23. Provisions G1.a. through h. of WDRs Order R5-2006-0019 shall be deleted.  
The Discharger has completed all listed tasks and it is appropriate to remove these requirements.

### **Public Notice**

The Central Valley Water Board has notified the Discharger and interested agencies and persons of its intent to amend waste discharge requirements for this discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

The Central Valley Water Board, in a public meeting, heard, and considered all comments pertaining to the discharge.

**IT IS HEREBY ORDERED** that Order R5-2006-0019 is amended. Pursuant to Water Code sections 13263 and 13267, the Discharger, its agents, successors and assigns, in order to meet the provisions contained in Division 7 of the Water Code and regulations adopted thereunder, shall comply with amended Order R5-2006-0019-001 as follows:

1. Finding No.4 is updated as: Updated requirements for the Union Mine Landfill, landfill gas collection and flare system, and Class II surface impoundment are found in WDRs Order R5-2018-0048, adopted by the Regional Board on 31 may 2018. Requirements for the Class II leachate and septage treatment and disposal system are contained in this Order.

2. Finding No.6 is updated as: The Union Mine WWTF receives Class II leachate generated from the Union Mine Landfill, condensate generated during extraction of landfill gas, septage and portable toilet waste generated throughout El Dorado County.
3. Finding No.7 is updated as: The WWTF consists of aerobic digesters, two sludge centrifuges, a disinfection system, two effluent storage tanks, and sprayfields. Attachment B, which is attached hereto and made part of this Order by reference, depicts the treatment plant, storage tank, and disposal areas.
4. Finding No.9 is updated as: The Discharger accepts portable toilet waste. The Discharger estimates that approximately 180,000 to 200,000 gallons of portable toilet waste are delivered annually to the WWTF for treatment and disposal.
5. Finding No.14 is updated as: Each digester is a complete mix system that is kept in a homogenous state by an aeration diffuser system utilizing blowers. The aerobic process is continuous until a predetermined volatile solids reduction, other in-house testing parameter(s) are met, or liquids need to be decanted due to digester capacity constraints. At this point, the digester aeration blower is shut down to allow the solids and liquid to separate. Supernatant from the digesters is decanted to the effluent storage tank using gravity or pumps depending on the wastewater level in the effluent storage tank.
6. Finding No.15 is updated as: Digested sludge from each aerobic digester is pumped to one of two centrifuges for solids processing. The processed solids from each centrifuge are deposited into temporary storage bins that are transported to the on-site Class II landfill for disposal or transported off-site to a permitted facility.
7. Finding No.16 is updated as: Effluent is stored in two two-million-gallon above ground storage tanks.
8. Finding No.17 is updated as: Disinfection is achieved by dosing the effluent stored in the effluent storage tanks or as effluent is applied to the spray-fields through chlorine contact chambers with sodium hypochlorite or other approved disinfectant.
9. Finding No.20 is updated as: The water balance submitted for 100-year annual precipitation conditions indicates that the WWTF has sufficient treatment and storage capacity. The water balance for the 100-year scenario assumes that approximately 12,440 gpd (monthly average) of septage and portable toilet waste, and 7,560 gpd (monthly average) of Class II leachate and landfill gas condensate are treated and disposed of. Class II leachate generation is greater during 100- year conditions because of the uncapped areas in the landfill. The Discharger obtained a permit to discharge to the El Dorado Irrigation District (EID) Deer Creek Wastewater Treatment Plant (WWTP).
10. Finding No.21 is updated as: The RWD also included a third water balance which provided the flows at which the WWTF would have sufficient disposal capacity based on 100-year annual precipitation condition. The water balance shows that the wastewater disposal system has sufficient capacity to dispose of approximately 2,600 gpd (monthly

average) of septage and portable toilet waste, and 8,000 gpd (monthly average) of Class II leachate and landfill condensate, or approximately 10,600 gpd in total.

11. Finding No.22 is deleted. Findings No.23 through 68 shall be renumbered as Findings No.22 through 67, respectively.
12. Finding No.29 shall be renumbered as No.28 and is updated as: The spray disposal system consists of two irrigation pumps, high density polyethylene (HDPE) piping from the filter building to the sprayfields, HDPE distribution piping at each sprayfield, and full impact sprinkler heads. Sprinkler heads are spaced approximately 30 feet apart. There are about 60 sprinkler heads in the upper sprayfield and about 40 in the lower sprayfield. Manually operated valves control flow to each sprayfield.
13. Original Finding No.38 shall be renumbered as No.37 and is updated as: The RWD provides a groundwater quality evaluation based on five quarters of groundwater sampling data. Because the groundwater wells were installed downgradient of the disposal areas, groundwater monitoring data were compared to background concentration limits established for the Landfill Waste Management Units (WMUs) 1 and 2. The RWD states that certain mineral parameters exceeded background concentration established for WMUs 1 and 2 and were most likely related to natural processes, with the possible exception of chloride. Comparison of groundwater data, applied irrigation rates, and lysimeter sampling data (lysimeters within the sprayfields), suggests sprayfield operations in 2003 and 2004 may have caused or contributed to elevated chloride concentrations in the unsaturated zone and shallow groundwater.
14. New Findings No.68 and 69 shall be added and original Findings No.69 through 71 shall be renumbered as Findings No. 70 through 72, respectively.

### **Salt and Nitrate Control Programs Reopener**

68. The Central Valley Water Board adopted Basin Plan amendments incorporating new programs for addressing ongoing salt and nitrate accumulation in the Central Valley at its 31 May 2018 Board Meeting. The Basin Plan Amendments were conditionally approved by the State Water Board on 16 October 2019 and the Office of Administrative Law on 15 January 2020.

- a. For nitrate, dischargers that are unable to comply with stringent nitrate requirements will be required to take on alternate compliance approaches that involve providing replacement drinking water to persons whose drinking water is affected by nitrates. Dischargers could comply with the new nitrate program either individually or collectively with other dischargers. For the Nitrate Control Program, the Facility falls within Non-Prioritized Groundwater Basins. Notices to Comply for Non-Prioritized Basins will be issued within two to four years after the effective date of the Nitrate Control Program.
- b. For salinity, dischargers that are unable to comply with stringent salinity requirements would instead need to meet performance-based requirements and

participate in a basin-wide effort to develop a long-term salinity strategy for the Central Valley. Dischargers will receive a Notice to Comply with instructions and obligations for the Salt Control Program within one year of the effective date of the amendments (17 January 2020). Upon receipt of the Notice to Comply, the Discharger will have no more than six months to inform the Central Valley Water Board of their choice between Option 1 (Conservative Option for Salt Permitting) or Option 2 (Alternative Option for Salt Permitting).

As these strategies are implemented, the Central Valley Water Board may find it necessary to modify the requirements of these WDRs to ensure the goals of the Salt and Nitrate Control Programs are met. This order may be amended or modified to incorporate newly applicable requirements.

69. This Order may be amended or modified to incorporate any newly applicable requirements.
15. Discharge Prohibition A.3. of WDRs Order R5-2006-0019 shall be amended as follows:
  - A. Discharge Prohibitions:
    3. Discharge of treated wastewater downstream of the WWTF, other than at the approved sprayfields or discharged to the Deer Creek WWTP, is prohibited.
16. Discharge Specifications B.1. and B.3. of WDRs Order R5-2006-0019 shall be amended as follows:
  - B. Discharge Specifications:
    1. The monthly average inflow to the WWTF shall not exceed 20,000 gpd. However, the Discharger may submit a request to the Executive Officer, and upon approval, the Executive Officer may authorize increasing the flow limit up to the disposal capacity of 22,000 gpd.
    3. Disposal of effluent shall be confined to the sprayfields or the Deer Creek WWTP, as defined in this Order. The Discharger may dispose of wastewater into the landfill gas flare unit.
17. General Solids Disposal Specification E.4. of WDRs Order R5-2006-0019 shall be amended as follows:
  - E. General Solids Disposal Specifications
    4. Residual sludge, biosolids, and solid waste shall be disposed of in a manner allowed by WDRs Order R5-2018-0048 for the Union Mine Landfill or transported off-site to a permitted facility.
18. Provisions G.1.a. through h. of WDRs Order R5-2006-0019 shall be deleted. Provisions G.1.i. shall be renumbered as G.1.a.

19. Requirements for Salt and Nitrate Control Programs shall be added in Provisions G1.b.:

G. Provisions

1. b. The Discharger shall comply with the Basin Plan amendments adopted in Resolution R5-2018-0034 incorporating new programs (Salt and Nitrate Control Programs) for addressing ongoing salt and nitrate accumulation in the Central Valley developed as part of the Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) initiative.

Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. [Copies of the law and regulations applicable to filing petitions](http://www.waterboards.ca.gov/public_notices/petitions/water_quality) may be found on the Internet at: ([http:// www.waterboards.ca.gov/public\\_notices/petitions/water\\_quality](http://www.waterboards.ca.gov/public_notices/petitions/water_quality)), or will be provided upon request.

I, PATRICK PULUPA, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on 18 February 2021.

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PATRICK PULUPA, Executive Officer