

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

CLEANUP AND ABATEMENT ORDER R5-2017-0708
FOR

AMADOR REGIONAL SANITATION AUTHORITY

AMADOR REGIONAL SANITATION AUTHORITY SYSTEM WINTER PREPERATION
AMADOR COUNTY

This Order is issued to Amador Regional Sanitation Authority (ARSA) (hereafter known as “Discharger”) based on provisions of California Water Code¹ section 13304 which authorizes the Regional Water Quality Control Board, Central Valley Region (hereafter known as Central Valley Water Board) to issue a Cleanup and Abatement Order (CAO).

The Assistant Executive Officer of the Central Valley Water Board finds, with respect to the Discharger’s acts, or failure to act, the following:

1. Water Reclamation Requirements (WRRs) Order No. 93-240 was adopted by the Central Valley Water Board on 3 December 1993 for ARSA, Castle Oaks Golf Course and Development, City of Lone, and Portlock International, Ltd. Each party named in the WRRs is responsible for compliance with the WRRs. The WRRs address the transportation, storage, treatment, and disposal of domestic wastewater.
2. The Discharger is composed of the City of Sutter Creek, Amador City, and Amador County; these entities manage the ARSA system under a joint powers agreement.
3. Wastewater produced from the City of Sutter Creek, Martell, and Amador City is piped to the City of Sutter Creek’s wastewater treatment plant. The wastewater from these entities is treated to secondary standards, disinfected, and then conveyed to a series of storage reservoirs. The reservoirs (listed in downstream order) are Henderson Reservoir, Preston Forebay, and Preston Reservoir. Additional wastewater may be added to the system by Mule Creek State Prison, which discharges a portion of its treated effluent into the City of Lone’s treatment facility via Preston Reservoir.
4. This Order has been prepared to solely address the lack of storage and disposal capacity within the Discharger’s system. This Order is necessary because the Discharger threatens to cause or permit waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and create, or threaten to create, a condition of pollution or nuisance.

ARSA SYSTEM DESCRIPTION

5. The Discharger’s pipeline begins at the outfall of the Sutter Creek wastewater treatment plant (WWTP). A short portion of the pipeline travels adjacent to Sutter Creek above ground

¹ All references are to the California Water Code unless otherwise noted.

before descending below ground. The buried pipeline travels approximately 3 miles west to Henderson Reservoir. This pipeline is entirely gravity fed. Henderson Reservoir has a maximum freeboard of 27 feet and a total maximum capacity of approximately 452 acre feet. Along this section of pipeline are several valves that are used to direct the wastewater to flood irrigate Bowers Ranch. An underground pipeline conveys wastewater from Henderson Reservoir to Preston Forebay, approximately 2.5 miles further west. Preston Forebay has a total maximum freeboard of 30 feet and a maximum capacity of approximately 30 acre feet. Hoskins Ranch is located between Henderson Reservoir and Preston Forebay, where the Discharger uses sprinklers to spray irrigate wastewater. Wastewater is delivered to Hoskins Ranch via gravity siphon. From Preston Forebay an underground pipeline feeds wastewater west approximately 1 mile further to Preston Reservoir, which has a total maximum freeboard of 30 feet and a maximum capacity of 270 acre feet. Another underground pipeline travels from Preston Reservoir to a valve box approximately one third of a mile to the west, located in one of the sprayfields owned and operated by Mule Creek State Prison. This valve box is the termination point of the ARSA system. From that valve box wastewater can be conveyed to either the Lone Wastewater Treatment Plant or the Lone Tertiary plant.

6. Henderson Reservoir, Preston Forebay, and Preston Reservoir are all jurisdictional dams regulated by the California Department of Water Resources' Division of Safety of Dams (DSOD). All three reservoirs are leased to the Discharger by the State of California through the Department of General Services.
7. Henderson and Preston Reservoirs have stormwater diversion structures that reduce run on when operated and maintained correctly.
8. According to WRRs Order No. 93-240, wastewater from the Discharger's system may be discharged at three different areas: 1) the ranchers along the pipeline; 2) the Preston Youth Correctional Facility (YCF); and 3) the Castle Oaks Golf Course. However, Order No. R5-2002-0013, adopted by the Central Valley Water Board on 25 January 2002, rescinded the use of reclaimed wastewater at the Preston YCF. Consequently, wastewater is now used by ranchers along the pipeline, or is piped from Preston Reservoir to the City of Lone's tertiary treatment plant. After tertiary treatment, the wastewater is used for irrigation on the Castle Oaks Golf Course.
9. On Bowers Ranch, the Discharger has a 40-acre flood-irrigation disposal easement. As part of the response to a Notice of Violation (NOV) issued on 14 April 2017, the Discharger stated only approximately 60% of the 40 acres (24 acres) is equipped for flood irrigation. The Discharger is not utilizing the entire area described in the disposal agreement. Failure to utilize all acreage for land disposal has contributed to the capacity issues at the Discharger's reservoirs. Once the Bowers disposal is initiated, the field disposes of all flows from the City of Sutter Creek. Tailwater from Bowers Ranch collects in a natural drainage and flows into Henderson Reservoir. There are also several cattle watering troughs along the pipeline that are kept filled with wastewater using float switches.
10. The Discharger also has a 60-acre spray field irrigation disposal easement on Hoskins Ranch. As part of the response to a Notice of Violation (NOV) issued on 14 April 2017, the

Discharger stated only approximately 40% (24 acres) of the 60 acres available is equipped for spray field disposal. The Discharger is not utilizing the entire area described in the disposal agreement. Failure to utilize all acreage for land disposal has contributed to the capacity issues at the ARSA reservoirs. This ranch is for spray land application only. There is no tailwater control over the approximately half of the spray fields. The other half has a tailwater collection ditch on the downhill side. Collected tailwater is allowed to percolate into the soil.

11. The Discharger has an existing land application disposal easement for 1,300 acre feet per year on Noble Ranch, located approximately 1.5 miles southwest of Sutter Creek. Disposal facilities and infrastructure do not currently exist on the site.

2016/2017 WATER YEAR CAPACITY ISSUES

12. Heavy rains during the 2016/2017 wet season reduced the freeboard in the Discharger's storage reservoirs to less than the two feet required by Discharge Specification D.6 of the WRRs. In response, a NOV was issued on 14 April 2017. The freeboard level of Henderson Reservoir was below 2.0 feet from 26 March 2017 to 7 May 2017, with the lowest recording being 1 foot 2 inches from 19 April 2017 to 22 April 2017. The freeboard level of Preston Reservoir was below 2.0 feet from 26 March 2017 to 10 April 2017, and also from 30 April 2017 to 19 June 2017, with the lowest recording being 0 feet 11 inches from 21 May 2017 to 26 April 2017. This resulted in 85 consecutive days of freeboard violations.
13. On 1 October 2016 the Discharger's system had a total of 45,896,113 gallons of wastewater in the three storage reservoirs. Between 1 October 2016 and 1 July 2017 the Discharger's system received 146,242,800 gallons of secondary disinfected effluent from the Sutter Creek WWTP. A total of 99,510,600 gallons was disposed of between the land application areas and the lone tertiary plants during this time period. On 1 July 2017 the Discharger's system had a total of 204,764,768 gallons of water in the three storage reservoirs and California Department of Corrections and Rehabilitation's (CDCR) reservoir. At that time Henderson Reservoir had 6 feet 9 inches of freeboard, Preston Forebay had 9 feet 0 inches of freeboard, and Preston Reservoir had 3 feet 3 inches of freeboard.
14. Based on reported freeboard measurements, flows into the system, direct precipitation, and flows out of the system to disposal, 112,136,455 gallons of unaccounted for water entered the system between 1 October 2016 and 1 July 2017. This value takes into account all percolation, evaporation, direct precipitation, run on, inflow and infiltration, or overestimation of percolation rates in the flood irrigation area.
15. On 27 February 2017 the Discharger's General Manager contacted Central Valley Water Board staff via phone to inform them that the Henderson and Preston Freeboard levels were 4 feet 4 inches and 3 feet 7 inches respectively. He estimated they had approximately 1 month of storage remaining. He stated that if needed they would open the "dump gate" on Preston Reservoir, releasing the wastewater across CDCR sprayfields and into Mule Creek, Jackass Creek, and eventually the Castle Oaks residential area. Central Valley Water Board staff advised the Manager that using the "dump gate" and discharging to surface water would violate Discharge Prohibition C.1 of the WRRs, which states: "*Discharge of*

wastes to surface waters or surface water drainage courses is prohibited,” and Discharge Prohibition C.2 of the WRRs, which states: “*The by-pass or overflow of untreated or partially treated waste is prohibited.*” Central Valley Water Board staff urged him to investigate alternative disposal options that would not violate the WRRs.

16. On 27 March 2017 the Discharger’s General Manager again contacted Central Valley Water Board staff via phone to inform them that the Henderson, Preston Forebay, and Preston Freeboard levels were 1 feet 11 inches, 6 feet 10 inches, and 2 feet, respectively. Consequently, the DSOD allowed ARSA to raise the level of Preston Reservoir by 3 feet by placing sandbags across the spillway (the lowest point on the dam). The Manager stated that when Preston Reservoir reached 1 foot of freeboard they intended to open the “dump gate”. Central Valley Water Board staff again advised the Manager to investigate alternative disposal options that would not violate the WRRs. On the same day ARSA requested that CDCR temporarily store 75 acre feet of wastewater in CDCR’s reservoir to prevent the overtopping of the Preston reservoir spillway. CDCR agreed, and 92 acre feet (29,980,000 gallons) was pumped from Preston Reservoir to CDCR’s reservoir, with the understanding that an equal amount of wastewater would be pumped back to Preston in the summer of 2017.
17. On 1 May 2017 the Discharger’s General Manager contacted Central Valley Water Board staff via phone to inform them that the Preston Freeboard level was again reduced to 2 feet. Continued effluent flow from the Sutter Creek WWTP had caused the water level to rise despite the transfer to CDCR. He stated that they had explored all possible options for additional disposal, and that the only option left was to use the “dump gate” and release the secondary treated wastewater stored in Preston Reservoir directly into Mule Creek. Central Valley Water Board staff again stated that this would be a violation of the WRRs.
18. CDCR stated on numerous occasions in formal and informal communications with the Discharger that it did not agree with the Discharger in regards to the “dump gate” being an acceptable disposal method to empty Preston Reservoir in an emergency. If the dump gate were to be opened it would discharge secondary treated wastewater directly into surface water, which would be a violation of the WRRs.
19. The City of Lone Water Reclamation Plant reported on 1 August 2017 that the water they were receiving from Preston Reservoir at the plant’s headworks was “black, septic and contains hydrogen sulfide due to the anaerobic conditions.” No sampling, analysis, or pre-treatment of the water currently stored in Preston Reservoir has occurred.

VIOLATIONS OF THE WRRS

20. Discharge Prohibition C.1 of the WRRs prohibits discharge of wastes to surface waters or surface water drainage courses.
21. Discharge Prohibition C.2 of the WRRs prohibits the by-pass of overflow of untreated or partially treated waste.

22. Discharge Specification D.1 prohibits the treatment and discharge from causing a nuisance or condition of pollution as defined by the Water Code section 13050.

23. Discharge Specification D.6 of the WRRs requires that a 2.0-foot freeboard be maintained in all treatment and storage ponds at all times, or an operational plan shall be submitted which shows why a 2.0-foot freeboard is not needed to prevent overtopping the berms. The Discharger has not submitted any operational plan demonstrating why a 2.0-foot freeboard is not needed to prevent overtopping of the berms. Therefore the 2.0-foot freeboard requirement applies.

24. Provision E.4 of the WRRs requires the Discharger to submit a report by **1 September each year** describing how the Preston Reservoir is being maintained for the up-coming winter season. This report is required to contain current levels in reservoir and methods planned to dispose of wastewater so that winter storage levels are reached. ARSA did not file the required report on 1 September 2016, prior to the wet season. As of the date of this Order, ARSA again failed to submit the required report which was due on 1 September 2017.

25. The following freeboard measurements were reported as of 27 July 2017:

	2016			2017						
	1-Oct	1-Nov	1-Dec	1-Jan	1-Feb	1-Mar	1-Apr	1-May	1-Jun	1-Jul
Henderson Reservoir (ft)	25' 7"	23' 2"	20' 7"	16' 9"	9' 2"	4' 0"	1' 7"	1' 7"	3' 8"	6' 7"
Preston Forebay (ft)	13' 7"	13' 0"	13' 3"	14' 0"	13' 8"	9' 6"	9' 5"	9' 7"	6' 6"	8' 0"
Preston Reservoir (ft)	13' 9"	15' 4"	14' 1"	11' 7"	6' 9"	3' 5"	1' 6"	1' 7"	1' 2"	3' 2"
Henderson Reservoir (AF)	3.85	19.47	41.2	87.57	214	336.7	407.33	407.33	350.41	272
Preston Forebay (AF)	16	17	17	16	16	20	20	20	25	22
Preston Reservoir (AF)	121	107	119	144	198	238	265	265	269	242.4
ARSA Water Stored at CDCR (AF)	0	0	0	0	0	0	0	92	92	92
Total Storage (AF)	140.85	143.47	177.2	247.57	428	594.7	692.33	784.33	736.41	628.4

Bold text: Violations of freeboard requirements.

26. Including the 92 acre feet of Sutter Creek wastewater currently being temporarily stored in CDCR's reservoir, the Discharger currently has 454 acre feet (147,900,000 gallons) of wastewater in storage as of 27 July 2017. The total capacity of the system, with the required 2 feet of freeboard in each reservoir, is approximately 655 acre feet (213,400,000 gallons). Because 70% of the total storage is already in use there will not be enough storage capacity available for the 2017/2018 wet season. The Discharger has stated that it will not be able to prevent uncontrolled releases under the current conditions. An uncontrolled release would expose the public to secondary un-disinfected wastewater,

which has not been characterized. An uncontrolled release would also likely cause heavy erosion, sediment transport and deposit in the impacted streambeds, and the flooding of portions of the Fire Academy located next to Preston Reservoir, the Castle Oaks Golf Course, and the Castle Oaks residential community.

27. The daily average flow of effluent for July 2017 from the Sutter Creek WWTP was 279,652 gallons per day.
28. On 10 July 2017 the City of Lone communicated to the Discharger that they would meet the 300 acre foot (97,760,000 gallons) disposal volume required by the 2007 agreement, and would not be accepting any additional flows from the Discharger starting on 21 July 2017.
29. On 21 July 2017 the City of Lone ceased accepting the Discharger's wastewater, leaving the Discharger's system with no disposal sources other than Hoskins and Bowers Ranches. Both ranches are upgradient of Preston Reservoir.
30. The Discharger participated in a meeting with Central Valley Water Board staff on 24 July 2017 to discuss strategies to reduce the volume of water stored in the Discharger's system in preparation for the 2017/2018 wet season. The Discharger stated that it has been speaking with additional ranchers to possibly use their pasture land for the disposal of wastewater. Central Valley Water Board staff requested that any agreements with landowners be reported immediately in order to expedite any emergency land application areas. At the time of the meeting no agreements have been made. The Discharger stated that trucking and hauling the water is infeasible due to the volume. The Discharger also stated that enhanced evaporation is infeasible due to cost, equipment availability, and the quantity of wastewater that would need to be disposed of.
31. Following the meeting with the Discharger on 24 July 2017, Central Valley Water Board staff conducted an inspection of the Discharger's system on 26 July 2017. At that time both Bowers and Hoskins Ranches were being irrigated. Bowers Ranch was accepting all wastewater flows out of the Sutter Creek WWTP. Hoskins was accepting a portion of the flow between Henderson Reservoir and Preston Forebay. Preston Forebay was discharging to Preston Reservoir. Preston Reservoir was not discharging any wastewater.
32. During the 26 July 2017 inspection the additional 24 acres on each ranch (48 acres total) for which the Discharger holds the disposal easement for were not in use and were not being developed. No additional sprayfields had been added. No additional disposal infrastructure (i.e. sprinklers, cannons, enhanced evaporation) had been added.

REGULATORY CONSIDERATIONS

33. As a result of the events and activities described in this Order, the Central Valley Water Board finds that the Discharger threatens to cause or permit waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and creates, or threatens to create, a condition of pollution or nuisance.

34. The Discharger's Outfall System is in Sections 9-12, 16-18, T6N, R10E, MDB&M and Sections 22 and 23, T6N, R9E, MDB&M with surface water drainage to Mule and Sutter Creeks, tributary to Dry Creek, tributary to the Mokelumne River.
35. The Board's Water Quality Control Plan (Fourth Edition) for the Sacramento River and San Joaquin River Basins (Basin Plan) establishes the beneficial uses of the waters of the state and water quality objectives to protect those uses. The beneficial uses of the Mokelumne River are irrigation and stock watering; contact and noncontact recreation; warm and cold freshwater habitat; warm and cold water migration; warm and cold spawning; wildlife habitat.
36. Water Code section 13304, subdivision (a) states, in relevant part:
- Any person who has discharged or discharges waste into the waters of this state in violation of any waste discharge requirement or other order or prohibition issued by a regional board or the state board, or who has caused or permitted, causes or permits, or threatens to cause or permit any waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and creates, or threatens to create, a condition of pollution or nuisance, shall upon order of the regional board, clean up the waste or abate the effects of the waste, or, in the case of threatened pollution or nuisance, take other necessary remedial action, including, but not limited to, overseeing cleanup and abatement efforts.*
37. Water Code section 13050, subdivision (l):
- (1) *"Pollution" means an alteration of the quality of the waters of the state by waste to a degree which unreasonably affects either of the following:*
- (A) *The waters for beneficial uses.*
- (B) *Facilities which serve these beneficial uses.*
- (2) *"Pollution" may include "contamination."*
38. Water Code section 13050, subdivision (m) defines "Nuisance" to mean anything which meets all of the following requirements:
- (1) *Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property.*
- (2) *Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.*
- (3) *Occurs during, or as a result of, the treatment or disposal of wastes.*
39. Water Code section 13267, subdivision (b) states, in relevant part:

In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region ... shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.

40. The issuance of this Order is an enforcement action taken by a regulatory agency and is exempt from the provisions of the California Environmental Quality Act (Pub. Resources Code, § 21000 et seq.) pursuant to California Code of Regulations, title 14, section 15321, subdivision (a)(2).

IT IS HEREBY ORDERED that, pursuant to Sections 13304 and 13267 of the California Water Code, the Amador Regional Sanitation Authority (ARSA) shall take the necessary remedial actions to prevent the discharge of wastewater to surface water, in accordance with the following schedule.

Compliance with this Order shall include, but not be limited to, the following measures:

1. Beginning on **15 September 2017**, the Discharger shall provide weekly email reports every Friday by 5:00 pm that contain the following information:
 - a. Daily effluent flows from the Sutter Creek WWTP
 - b. Freeboard levels and total wastewater volume in Henderson Reservoir, Preston Forebay, and Preston Reservoir.
 - c. Volume of applied wastewater and acres irrigated for every land application area used during that week
 - d. All previously reported data for the above stated parameters
2. By **15 September 2017** the Discharger shall submit a plan to eliminate the threat of violation of the following prohibitions contained in WRRs Order No. 93-240:
 - a. Discharge Prohibition C.1 which states, "The discharge of wastes to surface water or any surface water drainage courses is prohibited."
 - b. Discharge Prohibition C.2 which states, "The by-pass or overflow of untreated or partially treated waste is prohibited."
3. By **1 November 2017**, the Discharger shall submit a report certifying that all wastewater that was pumped to CDCR's reservoir has been returned to Preston Reservoir and that the combined volume of wastewater stored in Henderson Reservoir, Preston Forebay, and Preston Reservoir is at or below 25 acre feet.

The Discharger shall obtain all local and state permits and access agreements necessary to fulfill the requirements of this Order. The Discharger shall continue any remediation or monitoring activities until such time as the Executive Officer determines that sufficient cleanup has been accomplished to fully comply with this Order and this Order has been rescinded. In accordance with California Business and Professions Code sections 6735, 7835, and 7835.1, engineering and geologic evaluations and judgments shall be performed by or under the direction of registered professionals competent and proficient in the fields pertinent to the required activities. All technical reports specified herein that contain workplans, that describe the conduct of investigations and studies, or that contain technical conclusions and recommendations concerning engineering and geology shall be prepared by or under the direction of appropriately qualified professional(s), even if not explicitly stated. Each technical report submitted by the Discharger shall contain the professional's signature and/or stamp of the seal.

Each report submitted to the Central Valley Water Board shall be included in the Discharger's Operating Record. Furthermore, any person signing a document submitted under this Order shall make the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my knowledge and on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

If the Discharger fails to comply with the provisions of this Order, the Central Valley Water Board may refer this matter to the Attorney General for judicial enforcement or the Assistant Executive Officer may issue a complaint for administrative civil liability. Failure to comply with this Order may result in the assessment of administrative civil liability up to \$10,000 per violation per day, pursuant to the Water Code sections 13268, 13350, and/or 13385. The Central Valley Water Board reserves its right to take any enforcement actions authorized by law.

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 may be found on the Internet at: http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request.

This Order is effective upon the date of signature.

Original Signed By

ANDREW ALTEVOGT, Assistant Executive Officer

8 September 2017
(Date)