

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

CLEANUP AND ABATEMENT ORDER R5-2020-0702
FOR

FOREST MEADOWS WASTEWATER TREATMENT AND RECLAMATION PLANT
CALAVERAS COUNTY WATER DISTRICT AND SIERRA GOLF MANAGEMENT

CALAVERAS COUNTY

This Order is issued to the Calaveras County Water District and Sierra Golf Management (hereafter together known as “Discharger”) based on provisions of California Water Code 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 Executive Officer of the Central Valley Water Board finds, with respect to the Discharger’s acts, or failure to act, the following:

1. On 17 March 2000, the Central Valley Water Board adopted Waste Discharge Requirements (WDRs) Order No. 5-00-066 which regulates treated discharges from the Calaveras County Water District (CCWD) and Sierra Golf Management’s Forest Meadows Wastewater Treatment and Reclamation Plan (Plant). The WDRs prescribe requirements for the treatment, storage, and discharge of domestic wastewater to the Forest Meadows Golf Course, which is owned by the Discharger.
2. This Order has been issued to the two Dischargers named in the WDRs to address violations of the WDRs that have resulted from the discharge of waste not consistent with, or authorized by the WDRs. This Order is necessary for the following reasons: 1) the Discharger has proposed to implement operational and physical waste handling changes to resolve on-going violations of the WDRs, and 2) 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.

FACILITY AND WASTEWATER TREATMENT SYSTEM DESCRIPTION

3. The Plant is located on Forest Meadows Road off Highway 4. It is situated on the north side of Angels Creek in Section 34, T4N, R14E, MDB&1 with surface water drainage into Angels Creek.
4. The treatment system consists of a headworks, two aerated ponds, a sludge-settling storage basin, a dissolved air flotation unit, deep-bed sand filters, and an ultraviolet (UV) light contact-chamber. Reclaimed wastewater is pumped to the golf course and stored for irrigation in the 108 acre-foot unlined effluent storage reservoir. The storage reservoir is located approximately 1800-feet from the Plant.

5. The Plant previously used two leachfields designed for 30,000 gallons per day each for disposal of effluent. However, in 2000 seepage was observed below each of the leach fields while they were being operated at design capacity. Discharge to the leachfields ceased, but the leachfields remain in place. The current WDRs only allow the leachfields to be used under certain conditions, as specified in Discharge Specification B.4. Under normal conditions all treated effluent is sent to the storage reservoir, at later disposed of via irrigation on the golf course.

PREVIOUS ENFORCEMENT AND HISTORY

6. On 29 August 2002, CAO R5-2002-0722 was issued to the Discharger for continuing violations related to inadequate storage and disposal capacity, and subsequent freeboard violations. The Plant did not meet the Title 22 requirements for effluent storage, and the failing leachfields significantly reduced the disposal capacity causing freeboard violations.
7. On 27 March 2005, CAO R5-2002-0722 was updated by Cleanup and Abatement Order R5-2005-0707 which was issued due to failure to comply with submittal deadlines in the original CAO, as well as additional violations including discharge of waste to surface water, failure to mark reclaimed water lines, sprinklers and valves with appropriate signage.
8. On 15 February 2007, CAO R5-2005-0707 was rescinded after the Discharger completed the actions required by that Order.
9. A floating mixing type aerator had been previously used at the effluent storage reservoir by the Dischargers to maintain dissolved oxygen levels and prevent algal blooms and odors. In 2014 the residents around the pond approached the Dischargers with a proposal to remove the aerator for aesthetic reasons, and replace it with a subsurface aeration system to be installed and operated at their own expense. The subsurface system was installed and the floating aerator was removed. Residents report that since the installation of the subsurface aeration system its effectiveness has steadily decreased and algae blooms have been increasingly worse each summer, with the summer of 2019 being by far the worst bloom. At this time the subsurface aeration system is not being operated or maintained to effectively prevent algae blooms, odor problems, or dissolved oxygen deficits, and the floating aerator has not been replaced at the effluent storage reservoir.
10. Prior to 25 June 2019, no violations or enforcement actions had been issued to the Plant in relation to odors, and no complaints had been received by Central Valley Water Board staff.

2019 INSPECTIONS, VIOLATIONS, AND PROGRESSIVE ENFORCEMENT

11. On 17 May 2019, Board staff inspected the Plant, including the effluent storage reservoir, as part of a routine compliance inspection. No odors were detected during that inspection, and the water in the reservoir appeared clear. At the time of the inspection Central Valley Water Board staff did not observe any violations of the WDRs but observed heavy vegetation around the reservoir and on the earthen berm between the stream and reservoir.

12. On 25 June 2019, Board staff received a complaint via a phone call from a resident of Forest Meadows regarding the apparent objectionable odors migrating throughout the neighborhood and surrounding the effluent storage reservoir. The Central Valley Water Board's Compliance and Enforcement staff contacted CCWD regarding the complaint, who stated that they were aware of the situation and had begun dosing the effluent at the Plant with algaecide to combat algae growth and reduce odors.
13. On 16 July 2019, Forest Meadows residents again contacted Central Valley Water Board staff stating that odors had gotten significantly worse during the first two weeks of July. The caller stated that the reservoir had been experiencing a severe algae bloom.
14. On 18 July 2019, Central Valley Water Board staff met with homeowners and CCWD staff to discuss the odors and potential solutions. Board staff again inspected the effluent storage reservoir and determined that odors had migrated beyond the boundary of the Plant, which is a violation of the WDRs. The water in the reservoir was bright green and opaque, indicating a large bloom of algae and/or bacteria were likely the source of the odors. CCWD stated that they were working with Sierra Golf Management (SGM) to increase the dose of algaecide to the effluent and explore additional remedial actions. At this time, CCWD stated that SGM was responsible for the operation and maintenance of the effluent reservoir, per a Resolution (Attachment B) signed 10 June 1998 between the two parties outside the WDRs. SGM did not attend the meeting.
15. Complaints and updates from the residents of Forest Meadows were received via phone and email nearly daily between 18 July 2019 and early September 2019. The complaints reinforced that the conditions of the storage reservoir and the odors were not improving.
16. On 2 August 2019, Central Valley Water Board staff issued a Notice of Violation (NOV) for odors originating at the storage reservoir, which created nuisance conditions throughout the neighborhood. The NOV required the submittal of a *Short Term Odors Mitigation Plan* to address the odors caused by the algae and bacteria bloom in the storage reservoir, and a *Long Term Odors Mitigation Plan* to prevent similar blooms from causing odors in the future.
17. On 27 August 2019, the SGM submitted a *Corrective Action/Short Term Odors Mitigation Plan*. Central Valley Water Board staff responded via email on 30 August 2019 that the plan had been reviewed and was found to be materially deficient as it did not describe steps that would effectively address the algal bloom.
18. On 4 September 2019, Board staff had a phone conference with CCWD, requesting an update on actions taken. The Discharger had not yet precluded public access to the storage reservoir or posted signs warning that the reservoir contained reclaimed wastewater. At this time samples had been collected to determine if the algal bloom had produced toxins in the water, but results had not yet been received. CCWD informed Board staff that at this time SGM had requested that CCWD take the lead on the compliance issued related to the algal bloom and the nuisance conditions in the effluent storage reservoir.

19. On 5 September 2019, Board staff again inspected the reservoir and met with CCWD staff to observe corrective actions. Board staff again inspected the effluent storage reservoir and determined there were odors continuing to migrate beyond the boundary of the facility. CCWD was installing a fence around the reservoir and had posted warning signs to comply with the WDRs. CCWD staff were physically manning a boat to mechanically brake up algal mats, causing them to sink. These mats, especially ones that appeared to be rotting on top, seemed to be the primary source of odors.
20. On 6 September 2019, Board staff received the laboratory results from the storage reservoir which determined that the algal bloom contained a high amount of *Microcystis* cyanobacteria, and that the bloom was producing the toxin microcystin at a high rate.
21. On 16 September 2019, the reservoir treatment consultant treated the reservoir for the first time. An additional treatment occurred in mid-October 2019.
22. On 18 September 2019, Board staff met with both CCWD and SGM at the Central Valley Water Board office to discuss the actions taken to date, the materially deficient *Corrective Action/Short Term Odors Mitigation Plan*, and the outstanding *Long Term Plan* required by the 2 August 2019 NOV. The Dischargers agreed to take more aggressive action to address the odors and stated that they would meet the deadline for submittal of an *Effluent Storage Pond Long Term Odor and Algae Control Plan*.
23. On 30 September 2019, the CCWD submitted an *Effluent Storage Pond Long-Term Odor and Algae Control Plan* in compliance with the 2 August 2019 NOV. Board staff has reviewed the submittal and found it to be complete. The Discharger intends to contract with a pond and reservoir management contractor who will perform regular treatments to the effluent storage reservoir to prevent algae blooms and odors. The Discharger has also recommended the following actions to be implemented either alone or in combination in the event that algae blooms, odors, or dissolved oxygen violations occur despite the regular treatments by the contractor:
 - i. Installation of a Sonic Solutions Algae Control System
 - ii. Additional algaecide dosing
 - iii. Installation of an aeration system
24. After the most recent inspection on 5 September 2019 complaints decreased significantly and residents reported a significant improvement in the odors and algae at the reservoir. This was likely due to a combination of the Discharger's actions and the cooler temperatures slowing the growth of algae.
25. On 31 October 2019, SGM announced that the golf course would be closing on 1 December 2019. Plans for maintenance of the golf course and continued use of reclaimed wastewater for irrigation were not described.

VIOLATIONS OF THE WDRS

26. Discharge Prohibition A.3 of the WDRs states: *“Neither the treatment nor the discharge shall cause a nuisance or condition of pollution as defined by the California Water Code, Section 13050.”* Additionally, Discharge Specification B.9 of the WDRs states: *“Objectionable odors originating at the Plant or Storage Facility shall not be perceivable beyond the boundaries of the Plant or Storage Facility.”* The odors at the effluent storage reservoir and in the surrounding neighborhood are a violation of this requirement. Therefore, this Order requires the Discharger improve the operation and maintenance practices associated with the reservoir to prevent reoccurrence.
27. Discharge Specification B.11 of the WDRs states: *“Public contact with reclaimed wastewater shall be precluded through such means as fences, signs, and other acceptable alternatives.”* Additionally, Reclamation Requirement D.9 of the WDRs states: *“Signs with proper wording of sufficient size shall be placed at areas of access and around the perimeter of all areas used for effluent disposal to alert the public of the use of reclaimed water.”* No measure to preclude public access to the reservoir were in place prior to 5 September 2019 when the Discharger installed a temporary fence and signs around the reservoir. This Order requires the Discharger to install permanent features to preclude public access.

REGULATORY CONSIDERATIONS

28. 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.
29. Surface water drainage from the Discharger’s wastewater treatment and disposal facility is to Angels Creek, a tributary to New Melones reservoir, which eventually drains to the Stanislaus River.
30. 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 downstream receiving water are municipal and domestic supply; irrigation and stock watering; process, service supply, and power; contact and noncontact recreation; warm and cold freshwater habitat; cold water migration; warm and cold spawning; wildlife habitat.
31. 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.

32. 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."

33. Water Code section 13050, subdivision (m) defines "Nuisance" to mean anything which meets 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.

34. Water Code Section 13260, subdivision (A.1) requires that any person discharging waste or proposing to discharge waste within a region that could affect waters of the state, other than into a community sewer system must first file a Report of Waste Discharge (RWD) and obtain either Waste Discharge Requirements (WDRs) or a waiver of WDRs from the Regional Board before beginning such a discharge.

35. Water Code Section 13260, subdivision (c), states, *each person subject to subdivision (a) shall file with the appropriate regional board a report of waste discharge relative to any material change or proposed change in character, location, or volume of the discharge.*

36. 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."

37. General Provision A.10, of Standard Provisions and Reporting Requirements for Waste Discharge Requirements states, *“The fact that it would be necessary to halt or reduce the permitted activity in Order to maintain compliance with this Order shall not be a defense for the discharger’s violation of the Order.”*
38. 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, 13260 and 13267 of the California Water Code, Calaveras County Water District and Sierra Golf Management shall take the necessary remedial actions to prevent the discharge of wastewater that causes or threatens to cause a condition of pollution and nuisance, in accordance with the following schedule.

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

1. **Effective on the date this Order is signed**, the Discharger shall implement, and continue to implement, the actions described in the *Effluent Storage Pond Long-Term Odor and Algae Control Plan*, including the weekly visual inspections and maintenance algacide doses by the contractor beginning in **1 May 2020**. Should an algae bloom or odors be observed at any time, the contingency measures described in the plan and outlined in Finding 23 of this Order shall immediately be implemented.
2. **By 4 September 2020**, submit documentation, including contracts and photo evidence, that the following items have been completed:
 - a. A contract is in place for a pond and reservoir management contractor to treat the effluent storage reservoir at least through 1 October 2020.
 - b. Completely preclude public access to the reservoir through such means as fences, signs, and other acceptable alternatives.
 - c. Place signs with proper wording of sufficient size at areas of access and around the perimeter of all areas used for effluent disposal and storage to alert the public of the use of reclaimed water.
3. **By 1 October 2020**, submit documentation, including photo evidence, that the following items have been completed:
 - a. Remove all vegetation from the effluent storage reservoir and surrounding berms.
4. **By 4 September 2020**, submit statement of intent for the future use of reclaimed wastewater on the golf course. If the volumes estimated to be used are unknown or less than used historically, the statement must be accompanied by an *Updated Water Balance Report* must also be submitted. The *Updated Water Balance Report*, which shall include:

- a. An updated and calibrated water balance that follows the requirements of the enclosed Requirements for Water Balance Update and Calibration (Attachment A). The water balance should determine if the Plant has the required treatment, storage, and disposal capacity to accommodate allowable wastewater flow, design seasonal precipitation, and ancillary inflow and infiltration during the winter months. Design seasonal precipitation shall be based on total annual precipitation using a return period of 100 years, distributed monthly in accordance with historical rainfall patterns. If the resulting water balance shows that the Plant does not have the capacity to meet these requirements, a workplan to reduce influent flow or increase the Plant's capacity must be submitted along with the water balance.
- b. The water balance should be supported by any Inflow and Infiltration (I&I) studies, collection systems inspections and maintenance records, hydraulic capacity studies, and documentation of any upgrades or repairs to the collection system, the treatment plant or the disposal system. All supporting documents should be submitted with the new water balance for review.
- c. A discussion with an evaluation of the ability of the effluent storage reservoir and disposal area to store and dispose of wastewater in compliance with Title 22 Requirements and the WDRs Discharge Prohibitions, Discharge Specifications, and Provisions.
- d. A comparison of actual rainfall data from a reliable cited source to the 100 year annual return period precipitation total. The 100 year annual return period precipitation total should be either cited from the WDRs or from a reliable source.
- e. If the resulting water balance shows that the Plant does not have the capacity to meet these requirements, a workplan and timeline to reduce influent flow or increase the Plant's capacity must be submitted along with the water balance (see Attachment A). All improvements must be in place by **1 October 2020**.

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, in the opinion of the Executive Officer, the Discharger fails to comply with the provisions of this CDO, the Executive Officer may refer this matter to the Attorney General for judicial enforcement, may issue a complaint for administrative civil liability, or may take other enforcement actions. 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: [Copies of the law and regulations](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.

This Order is effective upon the date of signature.

PATRICK PULUPA, Executive Officer

(Date)

Enclosure: Attachment A: Requirements for Water Balance Update and Calibration
Attachment B: Resolution 98-40 between CCW, Alston Financial Inc. and EMC Inc.