

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER R5-2017-XXXX

WASTE DISCHARGE REQUIREMENTS
FOR
CALIFORNIA DEPARTMENT OF CORRECTIONS AND REHABILITATION
DEUEL VOCATIONAL INSTITUTION
CLASS II SURFACE IMPOUNDMENTS
CONSTRUCTION, OPERATION, CLOSURE, AND CORRECTIVE ACTION
SAN JOAQUIN COUNTY

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

1. California Department of Corrections and Rehabilitation (hereinafter Discharger) owns and operates the Deuel Vocational Institution (Facility) about 5 miles east of City of Tracy, in Section 20 Township 2S, Range 6E, MDB&M, as shown in Attachment A, which is incorporated herein and made part of this Order by reference. The facility currently operates a reverse osmosis (RO) water treatment plant that includes a brine concentrator system (BCS) and four evaporation ponds (Class II Surface Impoundments) that serves the CDCR vocational facility which includes inmate housing and supporting operations. The Class II surface impoundments are regulated under authority given in Water Code section 13000 et seq.; California Code of Regulations, title 27 ("Title 27"), section 20005 et seq. for the containment of designated waste as defined in California Water Code section 13173.
2. The following documents are attached to this Order and hereby incorporated into and made a part of this Order by reference:
 - a. Attachment A – Site Location Map
 - b. Attachment B – Existing Facility
 - c. Attachment C – Vicinity Supply Well Location Map
 - d. Attachment D – Detection Monitoring Program Sampling Point Locations
 - e. Attachment E – Future Wastewater Production Process Flow Diagram
 - f. Attachment F – Information Sheet
 - g. Attachment G – April 2016 Standard Provisions and Reporting Requirements
3. The facility is on a 760-acre property at 23500 Kasson Road, Tracy. The existing and future Class II surface impoundments area at the facility is approximately 8.8 acres of which 4.4 acres have been constructed. The facility currently consists of four 1.1-acre Class II surface impoundments as shown in Attachment B, which is incorporated herein and made part of this Order by reference. The facility is located on Assessor's Parcel Number (APN) 239-120-01.

4. The Class II surface impoundments are used for containment of the discharge of hypersaline wastewater generated during the brine concentration process used in the production of potable drinking water. The primary constituents of concern in the wastewater are total dissolved solids which include chloride, sodium, sulfate, manganese, aluminum, and iron.
5. On 30 September 2016, the Discharger submitted a Report of Waste Discharge (ROWD). The information in the ROWD has been used in revising these waste discharge requirements (WDRs). The ROWD contains the applicable information required in Title 27. The ROWD and supporting documents contain information related to this revision of the WDRs including:
 - a. Clean closure of the four existing 1.1-acre Class II surface impoundments;
 - b. Reconstruction of the clean closed area into two new 1.7 acre Class II surface impoundments;
 - c. Construction of two new 1.7 acre Class II surface impoundments;
 - d. Installation of unsaturated zone and groundwater detection monitoring systems for the new Class II surface impoundments; and
 - e. Updates to financial assurances for closure and post closure maintenance costs.
6. The existing and future waste management units authorized by this Order are described as follows:

<u>Unit(s)</u>	<u>Area</u>	<u>Liner/LCRS¹ Components</u>	<u>Unit Classification & Status</u>
P-1 through P-4	1.1 Acres each	Three geomembrane liners with a geosynthetic LCRS drainage layer between each liner pair.	Class II, inactive, ready for closure
P-01 and P-02	1.71 acres each	Two geomembrane liners with a geosynthetic LCRS drainage layer between the liners.	Class II, future as replacements for Units -1 through -4
P-03 and P-04	1.71 acres each	Two geomembrane liners with a geosynthetic LCRS drainage layer between the liners.	Class II, future

¹ LCRS – Leachate collection and removal system

7. On 25 January 2007, the Central Valley Water Board issued Order R5-2007-0005 in which the waste management units at the facility were classified as Class II units for the discharge of designated waste. This Order continues to classify the waste management units as Class II units in accordance with Title 27.
8. This Order implements the applicable regulations for discharges of solid waste to land through Prohibitions, Specifications, Provisions, and monitoring and reporting

requirements. Prohibitions, Specifications, and Provisions are listed in Sections A through H of these WDRs below, and in the Standard Provisions and Reporting Requirements, dated April 2016 (SPRRs) which are attached hereto and made part of this Order. Monitoring and reporting requirements are included in the Monitoring and Reporting Program (MRP) R5-2017-XXXX and in the SPRRs. In general, requirements that are either in regulation or otherwise apply to all facilities regulated under Title 27 are considered to be “standard” and are therefore in the SPRRs. Any site-specific changes to a requirement in the SPRRs are included in the applicable section (A through H) of these WDRs, and the requirement in the WDRs supersedes the requirement in the SPRRs.

WASTE CLASSIFICATION AND UNIT CLASSIFICATION

9. The Discharger proposes to continue to discharge designated waste to lined Class II surface impoundments at the facility. These classified wastes may be discharged only in accordance with Title 27.
10. Water Code section 13173 defines “Designated Waste” as either of the following:
 - a. Hazardous waste that has been granted a variance from hazardous waste management requirements pursuant to Health and Safety Code section 25143.
 - b. Nonhazardous waste that consists of, or contains, pollutants that, under ambient environmental conditions at a waste management unit, could be released in concentrations exceeding applicable water quality objectives or that could reasonably be expected to affect beneficial uses of the waters of the state as contained in the appropriate state water quality control plan.

Designated waste can be discharged only at Class I waste management units, or at Class II waste management units which comply with Title 27 and have been approved by the regional board for containment of the particular kind of waste to be discharged.

11. The Discharger treats on average 0.8 to 1.2 million gallons per day (MGD) of brackish water from four on-site groundwater supply wells. The raw water is treated using a reverse osmosis process and brine concentration for the production of potable drinking water. The waste byproduct of the reverse osmosis and brine concentration process is hypersaline liquid.
12. The Discharger provided data in the ROWD shown in the table below for samples of hypersaline liquid collected from the discharge from a Vibratory Shear Enhanced Process (VSEP) pilot project which will be installed to replace the brine concentrator system (BCS). The table also includes the California primary maximum contaminant level (primary MCL), the lowest applicable water quality objective (WQO) for groundwater for protection of drinking water beneficial use for domestic and municipal supply wells, and the background groundwater quality pumped from the four onsite supply wells at the site.

Constituent of Concern (COC)	Wastewater Quality ⁵	Background Groundwater Quality	CA MCL ¹	Lowest Applicable WQO ²	
Total Dissolved Solids (mg/L)	53,600	2,207	500 ³	450	Agriculture
Chloride (mg/L)	50,500	1,093	250 ³	106	Agriculture
Calcium (mg/L)	10,067	215	None	None	-
Sodium (mg/L)	9,067	237	None	30	Taste and Odor
Sulfate (mg/L)	6,250	227	250 ³	250	Taste and Odor
Magnesium (mg/L)	5,700	113	None	None	-
Potassium (mg/L)	310	7.5	None	None	-
Strontium (mg/L)	300	6.15	None	4	USEPA Health Advisory
Manganese (mg/L)	24	0.49	0.05 ³	0.2	Agriculture
Iron (mg/L)	6.6	0.14	0.3 ³	5	Agriculture
Barium (mg/L)	3.43	0.12	1 ⁴	1	USEPA Health Advisory
Boron (mg/L)	3.0	0.60	None	0.7	Agriculture
Aluminum (mg/L)	1.82	ND	1 ⁴	0.2	CA Secondary MCL

¹ California Division of Drinking Water Maximum Contaminant Levels

² Water Quality Objective

³ Secondary MCL (taste & odor or welfare-based)

⁴ Primary MCL (health based + technology and economics)

⁵ Values in bold pertain to COCs where the background water quality is of high quality (See definition of high quality waters in the SWRCB Resolution 68-16 State Antidegradation Policy) i.e. better than the CA MCL or lowest applicable WQO and the wastewater quality is worse than the CA MCL or lowest applicable WQO (i.e. a release could cause impairment of receiving water beneficial uses).

13. The data indicate that the discharge consists of or contains pollutants that, under ambient environmental conditions at a waste management unit, could be released in concentrations exceeding applicable water quality objectives or that could reasonably be expected to affect beneficial uses of the waters of the state. Therefore, the discharge is a “designated waste” and as such must be discharged to a Class II waste management unit as required by Title 27.

SITE DESCRIPTION

14. The primary land uses within one mile radius of the facility is agriculture with a small cluster of commercial and industrial warehouse land use to the northwest.

15. A well survey conducted in 2016 indicated that there are domestic, industrial, and agricultural groundwater supply wells within one mile of the facility. Locations of these wells relative to the facility are shown on Attachment C, which is incorporated herein and made part of this Order by reference.

16. The ROWD states that the facility is located within the central portion of the Great Valley Geomorphic Province that includes the Sacramento Valley in the north, and the San Joaquin Valley in the south. The facility is situated within the northern portion of the San Joaquin Valley that approximately extends from the Sacramento-San Joaquin Delta Region in the north to the City of Bakersfield in the south (Fugro, 2005). Locally, geology is composed primarily of the Dos Palos Alluvium (Qdp), which is Holocene in age, with portions of the facility underlain by Alluvial Fan Deposits (Qf). These units contain laterally extensive fine sands, silts, and clays likely deposited during flooding of the nearby San Joaquin River and other fluvial and alluvial depositional processes.
17. Four test borings were installed as part of a 2005 geotechnical study for the design of the initial site impoundments. Surface soils reportedly consisted of soft to firm clay with sand which extended to depths of 5 to 10 feet bgs. Below the surface soils, firm to very stiff clays intermixed with sand and silt layers were encountered that extended to depths of 42 to 46 feet bgs. Below the clay layer, dense to very dense, poorly graded sand was encountered to a maximum depth explored of 56.5 feet (Fugro, 2005).
18. Additional geotechnical testing was accomplished to update and confirm the 2005 study. Cone penetrometer test (CPT) probes and soil borings were performed. These explorations generally ranged from 11.5 to 50 feet bgs, and were generally focused on the west side of the facility to supplement the existing geotechnical data from previous work by Fugro. The additional geotechnical testing was planned specifically to target areas of uncertainty or to fill gaps in the data obtained during previous studies. Subsurface materials encountered during the exploration program were generally consistent with the Dos Palos Alluvial (Qdp) and Alluvial Fan (Qf) deposits. Observed soils on site generally consisted of fine grained low plasticity clays, sandy clays, silts, and fine grained sands. Lenses of fine gravel up to ½ inch, and coarse sand were also observed in some layers. In conclusion, primary geologic stratigraphic profile at the facility consists of four laterally extensive continuous layers: Upper Clay, Upper Sand, Lower Clay, and Lower Sand.
19. Based on a site-specific seismic analysis, the controlling maximum credible earthquake (MCE) for the site is a moment of magnitude 6.6 on the Richter scale along segment 7 of the Great Valley Fault at a closest rupture distance of 9 miles southwest of the site. It is estimated that a MCE event would produce a peak ground acceleration of 0.483 g at the site with a return period of 9 years for a moment of magnitude 6 event and 48 years for a moment of magnitude 7 event.
20. The average annual precipitation at the facility is 9.86 inches based on the Tracy Carbona Station. The 100-year wet season was calculated to be 18.02 inches based on data from the Flood Emergency Response Information Exchange developed by California Department of Water Resources for Tracy Carbona Station. The mean pan evaporation is 97.48 inches per year as measured at the Tracy Pumping Plant.
21. The 1,000-year, 24-hour precipitation event for the facility is estimated to be 4.25 inches, based on National Oceanic and Atmospheric Administration (NOAA) Atlas 14 precipitation frequency data server.

22. The waste management facility is within a 100-year flood plain based on the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map, Community-Panel Number 06077C0755F. These WDRs require the Discharger to design, construct, and maintain the surface impoundments such that the designated waste within the surface impoundments remains above the 100-year flood plain estimated flood level of 27 feet msl. Furthermore, these WDRs require the Discharger to protect the surface impoundments such that they are not inundated or washed out due to a flood event with a 100-year return period.

SURFACE WATER AND GROUNDWATER CONDITIONS

23. The *Water Quality Control Plan for Sacramento and San Joaquin River Basins, Fourth Edition* (hereafter Basin Plan), designates beneficial uses, establishes water quality objectives, and contains implementation plans and policies for all waters of the Basin.

24. Surface drainage is toward the San Joaquin River in the Sacramento San Joaquin Delta Hydrologic Area (544.00).

25. The beneficial uses of the Sacramento-San Joaquin Delta are municipal and domestic supply; agricultural supply; industrial; industrial service supply, water contact recreation; non-contact water recreation; warm freshwater habitat; cold freshwater habitat; migration of aquatic organism; spawning, reproduction, and/or early development; wildlife habitat; and navigation.

26. The first encountered groundwater reported between 2007 and 2016 ranges from about 2.0 feet to 7.4 feet below the native ground surface as reported in the Discharger's 2016 1st Semiannual Monitoring Report. Groundwater elevations ranged from about 9.3 feet MSL to 16.4 feet MSL in groundwater monitoring wells MW-2 and MW-3 respectively. The highest anticipated groundwater in MW-2 based on variability of the recorded measurements is estimated to be at the existing ground surface. To maintain a minimum of five feet of separation between the liner system and highest anticipated groundwater, the bottom of the ponds will be set at least five feet above the existing grade.

27. The ROWD states that the estimated hydraulic conductivity of the native soils underlying the existing surface impoundments is 1×10^{-7} centimeters per second (Source: Amec Geomatrix, 2008).

28. Monitoring data indicate background groundwater quality for first encountered groundwater has electrical conductivity (EC) ranging between 4,500 and 5,220 micromhos/cm, with total dissolved solids (TDS) ranging between 3,800 and 4,500 milligrams per liter (mg/L).

29. The downgradient direction of groundwater is generally toward the north-northeast and to the northeast. The estimated average groundwater gradient is approximately 0.004 to 0.007 feet per foot.

30. The designated beneficial uses of the groundwater, as specified in the Basin Plan, are domestic and municipal water supply, agricultural supply, industrial service supply, and industrial process supply.

GROUNDWATER, UNSATURATED ZONE, AND SURFACE WATER MONITORING

31. The existing groundwater monitoring network for the Class II surface impoundments P-1 through P-4 consists of background monitoring well MW-3, and detection monitoring wells MW-1 and MW-2, as shown on Attachment D. The monitoring network also includes two additional groundwater monitoring points MW-1A and MW-4.
32. The Discharger's detection monitoring program for groundwater at the facility satisfies the requirements contained in Title 27 for surface impoundments P-1 through P-4 and for rehabilitated surface impoundments P-01 and P-02 which will replace surface impoundments P-1 through P-4. However, the ROWD proposed a groundwater detection monitoring system for surface impoundments P-03 and P-04 that does not meet the requirements of Title 27 sections 20415(b)(1)(B) and 21760(a)(1)-(3). These WDRs require the Discharger to install a groundwater detection monitoring system that complies with Title 27 requirements and to develop water quality protection standards for the monitoring system, as required by Title 27, prior to placement of waste in surface impoundments P-03 and P-04.
33. The unsaturated zone monitoring system for the Class II surface impoundments P-1 through P-4 currently consists of pan lysimeters LCRS-1 through LCRS-4 respectively, located under the LCRS sumps in each Class II surface impoundment. The Discharger's detection monitoring program for the unsaturated zone satisfies the requirements contained in Title 27 for surface impoundments P-1 through P-4. However, the Discharger's ROWD proposed to install one suction lysimeter under the LCRS sumps of each new Class II surface impoundments P-01, P-02, P-03, and P-04. The Discharger's proposed unsaturated zone monitoring system does not meet the requirements of Title 27 sections 20415(d)(2)(B) and 21760(a)(1)-(3). These WDRs require the Discharger to install an unsaturated zone detection monitoring system that complies with Title 27 requirements and to develop water quality protection standards for the monitoring system, as required by Title 27, prior to placement of waste in surface impoundments P-01 through P-04.
34. No surface water monitoring is required in these WDRs since the Discharger does not propose to discharge solid waste to any areas other than the Class II surface impoundments covered under these WDRs.
35. The Discharger submitted a June 2008 Water Quality Protection Standard (WQPS) report proposing statistical data analysis methods to calculate concentration limits for each monitored constituent in accordance with Title 27. The WQPS report proposed to use Intrawell data analysis to calculate control limits for the monitored constituents using the Shewhart-CUSUM method. The WQPS and approved data evaluation methods are included in MRP R5-2017-XXXX.

GROUNDWATER CONDITIONS AND CORRECTIVE ACTION

36. Following construction of the four 1.1-acre ponds in 2008, a leak in the secondary liner was discovered on 18 September 2014. In February 2015, the Discharger ceased discharging waste to the ponds. The Discharger is currently storing waste generated from the reverse osmosis facility in onsite tanks and periodically transporting and disposing the waste at a wastewater treatment plant.
37. On 30 March 2015 Central Valley Water Board issued a Cleanup and Abatement Order (CAO) requiring amongst other things to:
- a. Submit a Long Term Compliance Implementation Report which included a schedule when the leaks in the primary and secondary liners would be repaired;
 - b. Submit a plan and proposed timeline for clean closing the ponds if the Discharger proposes a means to eliminate a need for use of Class II surface impoundments.
38. In response to the CAO, as corrective action the Discharger submitted a ROWD in which the Discharger chose to continue to operate the reverse osmosis facility in a manner that would require discharge to Class II surface impoundments. Instead of repairing the four 1.1 acre ponds, the Discharger chose to clean close them and in their place construct four new 1.7 acre Class II surface impoundments. These WDRs regulate the proposed corrective action of clean closure of the existing four 1.1 acre surface impoundments and replacement with four new 1.7 acre surface impoundments through prohibitions, specifications, and provisions.

DESIGN OF WASTE MANAGEMENT UNIT(S)

39. Water Code section 13360(a)(1) allows the Central Valley Water Board to specify the design, type of construction, and/or particular manner in which compliance must be met in waste discharge requirements or orders for the discharge of waste at solid waste disposal facilities.
40. The Discharger proposes a liner system for the reconstructed and new Class II surface impoundments consisting of, from top to bottom:
- a. A primary 60-mil High Density Polyethylene (HDPE) geomembrane.
 - b. A 300 mil geonet drainage layer, as a Leachate Collection and Removal System (LCRS).
 - c. An LCRS sump for removal of any leakage through the primary liner.
 - d. A secondary 60-mil HDPE geomembrane.
 - e. Lysimeter(s) below for secondary liner for unsaturated zone monitoring.
 - f. A compacted soil foundation layer.

41. The LCRS will drain to a sump where leachate will be pumped back into the surface impoundment. The LCRS is designed with capacity for at least twice the maximum anticipated daily volume of leachate.
42. Title 27 section 20080(b) allows the Central Valley Water Board to consider the approval of an engineered alternative to the prescriptive standard. In order to approve an engineered alternative in accordance with Title 27 section 20080(c)(1) or (2), the Discharger must demonstrate that the prescriptive design is unreasonably and unnecessarily burdensome and will cost substantially more than an alternative which will meet the criteria contained in section 20080(b), or would be impractical and would not promote attainment of applicable performance standards. The Discharger must also demonstrate that the proposed engineered alternative(s) provides protection against water quality impairment equivalent to the prescriptive standard in accordance with Title 27 section 20080(b)(2) of Title 27 and that any proposed engineered alternative is consistent with the performance goal in accordance with Title 27 sections 20240, 20250, and 20310.
43. The Discharger proposes a liner system which will be designed, constructed, and operated to prevent migration of wastes from the Unit to adjacent natural geologic materials, groundwater, or surface water during disposal operations, closure, and the postclosure maintenance period in accordance with the criteria set forth in Title 27 for Class II waste management units.
44. The Discharger adequately demonstrated that construction of the liner prescriptive standard using a clay liner as the secondary liner for the Class II surface impoundment as described in Title 27 would not be as protective of receiving water quality when compared to the proposed engineered alternative design utilizing a 60-mil geomembrane as the secondary liner. The Discharger has demonstrated that the proposed engineered alternative is consistent with the performance goals of the containment structures for a Class II waste management unit affords equivalent protection against water quality impairment.
45. Title 27 section 20370(a) requires Class II units to be designed to withstand the maximum credible earthquake (MCE) without damage to foundation or containment structures. The ROWD contains a stability analysis for the existing Class II surface impoundment. The stability analysis analyzes the impoundment under both static and dynamic conditions. The static stability analysis indicates a factor of safety of 1.8, which is greater than the factor of safety of 1.5 required by Title 27. The dynamic (seismic) stability analysis using the peak ground acceleration of 0.483 g for the MCE indicates a factor of safety of 1.5, which meets the required 1.5 factor of safety required by Title 27.
46. Title 27 section 20375(a) requires Class II surface impoundments to have capacity for seasonal precipitation, a 1,000-year 24-hour design storm event, and to maintain at least two feet of freeboard at all times. The 1,000-year, 24-hour storm event for the site is 4.25 inches, and is referred to hereafter as the "design storm". For Title 27 required seasonal precipitation, the Discharger has been required to use the 100-year wet season

distributed monthly to prevent overflow of the impoundment or less than two feet of freeboard during a reasonable worst-case scenario wet season. The 100-year wet season for the site is 18.02 inches. The ROWD includes a table showing how this rainfall would be distributed monthly by distributing the total amount among the months using the percentage of monthly precipitation that occurs on average. This results in the following for the 100-year wet season as shown in the ROWD:

Month	100-Year Wet Season (Inches)
January	3.47
February	3.14
March	2.50
April	1.54
May	0.82
June	0.16
July	0.05
August	0.16
September	0.40
October	0.95
November	2.01
December	2.83
Total	18.02

47. A detailed water balance for the surface impoundment is included in the ROWD. The water balance takes the following factors into account:

- a) The average daily base wastewater flow is 15,120 gpd or approximately 5.51 million gallons per year.
- b) Evaporation losses from the four surface impoundments will total approximately 6.92 million gallons per year, distributed monthly in accordance with adjusted local pan evaporation rates and a salinity reduction factor.
- c) The 100-year wet season 18.02 is distributed monthly in accordance with average monthly rainfall patterns.
- d) The total bottom surface area of the surface impoundments will be 6.8 acres.
- e) The surface impoundments were not sized to store wastewater other than that produced by the reverse osmosis water treatment process.
- f) The 1000-year design storm event requires an additional 4.25 inches of freeboard that needs to be maintained to accommodate the design storm event.
- g) The capacity of the four surface impoundments at the two-foot freeboard level is approximately 9.79 million gallons.
- h) The accumulation of solids in the four surface impoundments is approximately 50 cubic feet per day or approximately 1.22 feet of salt accumulation at the bottom of the surface impoundments over a 20 year period.

48. Based on the water balance in the ROWD, the Discharger reports that the surface impoundment has sufficient capacity to maintain more two feet of freeboard and the required additional volume for the design storm event during the height of the 100-year wet season. The highest volume would be seen during March at 3 million gallons stored in the four impoundments which is less than the volume of 9.79 million gallons of capacity at the two-foot freeboard level, plus the additional volume of the design storm event.
49. This Order requires the Class II surface impoundment to have capacity for wastewater flows to the impoundment, precipitation from a 100-year wet season of 18.02 inches distributed at least monthly, a 1,000-year 24-hour storm event (design storm) of 4.25 inches, and shall maintain at least two (2.0) feet of freeboard at all times. To ensure compliance with this requirement, the Discharger is required to maintain at least 2.4 feet of freeboard at all times except in the event of a storm equal to or exceeding the 1,000-year 24-hour design storm event in which case at least two (2.0) feet of freeboard must be maintained. Based on these requirements, the Class II surface impoundment must have at least 9.79 million gallons of capacity minus volume of solids accumulation up to the two (2.0) foot freeboard level. These WDRs limit the discharge of wastewater to the four 1.7-acre class II surface impoundments to a flow of 15,120 gpd evaluated as a monthly average and approximately 5.51 million gallons per year.
50. This Order includes an Action Leakage Rate (ALR) for the Class II surface impoundment LCRS. The ALR is the maximum flow rate through the primary liner to the LCRS beyond which the Discharger is required to take actions to inspect and repair the primary liner system. The ALR is based on the recommendations in the 1992 USEPA guidance document *Action Leakage Rate for Leak Detection Systems*. The guidance recommends that ALR for lined surface impoundments be set at no more than 1,000 gallons per acre per day (gpac) unless site-specific conditions dictate otherwise.

An ALR of 2,000 gpac is being proposed at the site for the following reasons:

- a. The 1992 EPA guidance document provides for different ALR than the rule of thumb based on site-specific conditions;
 - b. The surface impoundments exceed the minimum Title 27 design standards for the secondary liner allowing additional leakage through the primary liner;
 - c. The LCRS drainage layer's ability to pass 3,000 gpac without building up head on the secondary liner;
 - d. Potential difficulties locating very small holes in the primary liner with hypersaline water;
 - e. The consultant, Dewberry Engineers, Inc., certified that an ALR of 4,182 gpac would pass through the LCRS and meet the requirements of Title 27 for head build-up.
51. Based on the Finding above the site specific recommendation for the ALR is 2,000 gpac to be used to calculate the daily allowable leakage from the 1.7-acre impoundments. Therefore, this Order sets the ALR for each surface impoundment at 3,400 gallons per day. The leakage rate will be calculated based on monthly readings of the flow totalizer that records flow from the LCRS manhole back to the surface impoundment.

52. Construction will proceed only after all applicable construction quality assurance plans have been approved by Executive Officer.

CLEAN CLOSURE AND CLOSURE FINANCIAL ASSURANCES

53. A Preliminary Closure Plan (PCP) for the existing and future surface impoundments is included in the ROWD. Pursuant to Title 27 Section 21400(b)(1), the PCP proposes clean-closure of the surface impoundments. The PCP proposes to prepare and this Order requires that a final closure plan prior to commencing closure activities. The liner system, LCRS, and any sludges will be removed and taken to an off-site appropriately-permitted landfill. The PCP plan assumes that approximately 350,000 cubic feet of salt accumulation will require disposal after the estimated 20-year service life of the surface impoundments. The soil underlying the impoundment will be sampled for the presence of contaminants, and the PCP assumes limited over-excavation of the top two feet of soil will be conducted. The site will then be graded for future use.
54. The PCP includes an itemized cost estimate for third party costs to clean-close the surface impoundment. The total of the estimate is 2.6 million dollars in 2016 dollars. This cost estimate is approved by the adoption of these WDRs. Pursuant to Title 27 Section 22207(a), this Order requires the Discharger to establish financial assurances for closure of the Class II surface impoundments in accordance with the approved cost estimate naming the Central Valley Water Board as the beneficiary or providing an alternative state approved financial assurance mechanism per Title 27 section 22254. On 30 April 2009 the Discharger submitted an alternative financial assurance mechanism using (1) the Discharger's Special Repair funds, (2) appropriation of funds by the State Legislature, and (3) use of the Discharger's Operations Budget, Central Valley Water Board staff approved alternative financial assurance mechanism as providing adequate financial assurances on 12 June 2009. These revised WDRs continue to accept the financial assurances mechanism provided by the Discharger so long as the Discharger continues to use the approved language in the 30 April 2009 certification submitted by the Discharger's deputy secretary.

FINANCIAL ASSURANCES FOR CORRECTIVE ACTION

55. Title 27 Section 22222 requires the Discharger to establish financial assurances for corrective action of a known or reasonably foreseeable release. A cost estimate for corrective action is included in the ROWD. The total of the cost estimate for corrective action is \$2.6 million in 2016 dollars. This cost estimate is approved by the adoption of these WDRs. This Order requires the Discharger to establish financial assurances for corrective action in accordance with the approved cost estimate naming the Central Valley Water Board as the beneficiary or providing an alternative state approved financial assurance mechanism per Title 27 section 22254. Central Valley Water Board staff approved alternative financial assurance mechanism as providing adequate financial assurances on 12 June 2009. These revised WDRs continue to accept the financial

assurances mechanism provided by the Discharger so long as the Discharger continues to use the approved language in the 30 April 2009 certification submitted by the Discharger's deputy secretary. This Order also requires annual adjustments to account for inflation by 30 April of each year.

CEQA AND OTHER CONSIDERATIONS

56. On 7 April 2017, the California Department of Corrections and Rehabilitation as lead agency certified an addendum to its 2005 Initial Study/Mitigated Negative Declaration (IS/MND) for the Reverse Osmosis Water Treatment Facility project. The addendum was intended to evaluate and confirm CEQA compliance for proposed changes at the facility including enlargement of its Class II surface impoundments. A Notice of Determination was filed on 10 April 2017 in accordance with the California Environmental Quality Act (Public Resources Code Section 21000 et seq.) and CEQA guidelines (Title 14, section 15000 et seq.). The Central Valley Water Board considered the addendum to the 2005 IS/MND and incorporated mitigation measures from the negative declaration and addendum into these waste discharge requirements designed to prevent potentially significant impacts to design facilities and to water quality.
57. This order implements:
- a. *The Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, Fourth Edition.*
 - b. The prescriptive standards and performance goals of California Code of Regulations, title 27, section 20005 et seq., effective 18 July 1997, and subsequent revisions.
58. Based on the threat and complexity of the discharge, the facility is determined to be classified 2-B as defined below:
- a. Category 2 threat to water quality, defined as, "Those discharges of waste that could impair the designated beneficial uses of the receiving water, cause short-term violations of water quality objectives, cause secondary drinking water standards to be violated, or cause a nuisance."
 - b. Category B complexity, defined as, "Any discharger not included in Category A that has physical, chemical, or biological treatment systems (except for septic systems with subsurface disposal), or any Class 2 or Class 3 waste management units."
59. Water Code section 13267(b) provides that: "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 discharge or discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste outside of its region that could affect the quality of the waters of the state within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the board requires. The burden, including

costs of these reports, shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports.

60. The technical reports required by this Order and the attached Monitoring and Reporting Program R5-2017-XXXX are necessary to assure compliance with these waste discharge requirements. The Discharger owns and operates the facility that discharges the waste subject to this Order.

PROCEDURAL REQUIREMENTS

61. All local agencies with jurisdiction to regulate land use, solid waste disposal, air pollution, and to protect public health have approved the use of this site for the discharges of waste to land stated herein.
62. The Central Valley Water Board notified the Discharger and interested agencies and persons of its intent to prescribe 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.
63. The Central Valley Water Board, in a public meeting, heard and considered all comments pertaining to the discharge.
64. 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 that this Order becomes final, except that if the thirtieth day following the date that this Order becomes final 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.

IT IS HEREBY ORDERED, pursuant to California Water Code sections 13263 and 13267, that Order R5-2007-005 is rescinded except for purposes of enforcement, and that California Department of Corrections and Rehabilitation, its agents, successors, and assigns, in order to meet the provisions of Division 7 of the California Water Code and the regulations adopted thereunder, shall comply with the following:

A. PROHIBITIONS

1. The discharge of 'hazardous waste' is prohibited. For the purposes of this Order, the term 'hazardous waste' is as defined in California Code of Regulations, Title 23,

section 2510 et seq.

2. The discharge of solid waste or liquid waste to surface waters, surface water drainage courses, or groundwater is prohibited.
3. The discharge of wastes outside of a waste management unit or portions of a waste management unit specifically designed for their containment is prohibited.
4. The Discharge of any waste to the Class II surface impoundments other than that generated in the process of treating brackish groundwater for use at the facility is prohibited.
5. The Discharger shall comply with all Standard Prohibitions listed in Section C of the Standard Provisions and Reporting Requirements dated April 2016 (SPRRs).

B. DISCHARGE SPECIFICATIONS

1. The discharge shall not cause a condition of pollution or nuisance as defined by the Water Code section 13050.
2. Prior to the discharge of waste to a Class II waste management unit, all wells within 500 feet of the unit shall have sanitary seals or shall be properly abandoned. A record of the sealing and/or abandonment of such wells shall be sent to the Central Valley Water Board and to the State Department of Water Resources.
3. In accordance with the water balance provided by the Discharger in the ROWD, the Discharger is limited to discharging from its brackish groundwater treatment plant a wastewater flow of 15,120 gpd evaluated as a monthly average and approximately 5.51 million gallons per year of wastewater to the four 1.7-acre class II surface impoundments.
4. The Discharger shall comply with all Standard Discharge Specifications listed in Section D of the SPRRs dated April 2016.

C. FACILITY SPECIFICATIONS

1. Annually, prior to the anticipated rainy season but no later than **1 November**, any necessary construction, maintenance, or repairs of precipitation and drainage control facilities shall be completed and reported in compliance with MRP R5-2017-XXXX.

Class II Surface Impoundments

2. The Class II surface impoundments shall have capacity for wastewater flows to the impoundment, precipitation from a 100-year wet season of 18.02 inches distributed at least monthly, a 1,000-year 24-hour storm event (design storm) of 4.25 inches, and shall maintain at least two (2.0) feet of freeboard at all times. To ensure compliance

with this requirement, the Discharger shall maintain at least 2.4 feet of freeboard at all times except in the event of a storm equal to or exceeding the 1,000-year 24-hour design storm event in which case at least two (2.0) feet of freeboard must be maintained.

3. The Discharger shall **immediately** notify Central Valley Water Board staff by telephone and email and **immediately** take measures to regain surface impoundment capacity in the event that freeboard levels in any surface impoundment are equal to or less than 2.4 feet.
4. The Discharger shall record onsite rainfall to track the magnitude of storm events and shall record surface impoundment freeboard levels in accordance with the attached monitoring and reporting program.
5. Any direct-line discharge to a surface impoundment shall have fail-safe equipment or operating procedures to prevent overfilling.
6. The surface impoundment(s) shall be designed, constructed and maintained to prevent scouring and/or erosion of the liners and other containment features at points of discharge to the impoundments and by wave action at the water line.
7. Leachate removed from a surface impoundment's primary LCRS shall be discharged to the impoundment from which it originated.
8. The **Action Leakage Rate** (ALR) for each of the four 1.7-acre Class II surface impoundments is **3,700 gpd** or 111,000 gallons over a 30-day period. If leachate generation in the LCRS of any of the Class II surface impoundments exceeds the ALR over a 30-day period, the Discharger shall:
 - a. **Immediately** notify Central Valley Water Board staff by telephone and email.
 - b. Submit written notification within **seven days** that includes a time schedule to locate and repair leak(s) in the liner system.
 - c. If repairs do not result in a leakage rate less than the required ALR, the Discharger shall submit written notification within **seven days** that includes a time schedule for replacement of the upper liner of the surface impoundment or other action necessary to reduce leachate production.
 - d. Complete repairs or liner replacement in accordance with the approved time schedule under "b" and/or "c", above.
9. If leachate is detected in the pan lysimeter of a Class II surface impoundment indicating a leak in the containment structures, the Discharger shall:
 - a. **Immediately** notify Central Valley Water Board staff by telephone and email that the containment structures have failed.

- b. **Immediately** sample and test the liquid in accordance with the unsaturated zone monitoring requirements in MRP R5-2017-XXXX.
 - c. Submit written notification of the release to Central Valley Water Board staff within **seven days** including a time schedule to repair the containment structures.
 - d. Complete repairs of the containment structures in accordance with the approved time schedule.
10. Solids that accumulate in the Class II surface impoundments shall be periodically removed to maintain minimum freeboard requirements and to maintain sufficient capacity for surface impoundment leachate and for the discharge of wastes. Prior to removal of these solids, sufficient samples shall be taken for their characterization and classification pursuant to Article 2, Subchapter 2, Chapter 3, Division 2 of Title 27. The rationale for the sampling protocol used, the results of this sampling, and a rationale for classification of the solids shall be submitted to Central Valley Water Board staff for review.
11. The Discharger shall comply with all Standard Facility Specifications listed in Section E of the SPRRs dated April 2016.

D. DESIGN AND CONSTRUCTION SPECIFICATIONS

1. Containment structures and precipitation and drainage control systems shall be constructed and maintained to prevent, to the greatest extent possible, inundation, erosion, slope failure, and washout under 1,000-year, 24-hour precipitation conditions.
2. Waste management units shall be designed, constructed and operated to prevent inundation or washout due to flooding events with a 100-year return period.
3. Materials used to construct liners shall have appropriate physical and chemical properties to ensure containment of discharged wastes over their operating life.
4. Materials used to construct LCRSs shall have appropriate physical and chemical properties to ensure the required transmission of leachate over the life of the surface impoundments and the post-closure maintenance period.

5. LCRSs shall be designed, constructed, and maintained to collect twice the anticipated daily volume of leachate generated by each surface impoundment and to prevent the buildup of hydraulic head on the underlying liner at any time. The LCRS pump shall be capable of removing this volume of leachate and/or 150% of the Action Leakage Rate flow, whichever is greater.
6. The depth of the fluid in any LCRS sump shall be kept at the minimum needed for safe pump operation without excessive pump cycling that could damage the pump.
7. The Discharger shall submit a design report including plans, specifications, and a construction quality assurance plan for review and approval prior to constructing any new lined waste management unit.
8. The Discharger shall sufficiently characterize underlying soil and soil pore water characteristics below any new Class II surface impoundments to be constructed prior to placement of waste such that the soil and soil pore water characterization results may be used to determine the level of clean up necessary to certify that the overlying Class II surface impoundment is clean closed per Title 27 section 21400(b)(1) requirements for clean closure certification.
9. The Discharger shall submit a final report documenting construction of any new lined waste management unit for review and approval prior to discharging wastes to the waste management unit.
10. The Discharger shall comply with all Standard Design and Construction Specifications listed in Section E of the SPRRs dated April 2016.

Class II Surface Impoundment

11. Each Class II surface impoundment liner system shall consist of, from the top down:
 - a. A primary 60-mil High Density Polyethylene (HDPE) geomembrane.
 - b. A 300-mil geonet drainage layer with a minimum transmissivity of 0.011 ft²/sec, as a Leachate Collection and Removal System (LCRS).
 - c. A secondary 60-mil HDPE geomembrane.
 - d. An unsaturated zone monitoring system consisting of a pan lysimeter located below the entire LCRS sump.
 - e. A compacted soil foundation layer that meets the requirements of the geotechnical report prepared by Amec Foster Wheeler Environment & Infrastructure, Inc. dated 27 September 2016.

12. Highest anticipated groundwater is estimated to be at ground surface (see Finding 26). To maintain a minimum of five feet of separation between the liner system and groundwater, the bottom of the ponds will be set at least five feet above the existing grade.
13. The Class II surface impoundments are located within a 100-year flood area. Therefore, the Discharger shall protect the surface impoundments such that they are not inundated or washed out due to a flood event with a 100-year return period.
14. Each Class II surface impoundment shall have a sump to collect and return leachate to the impoundment that leaks through the primary liner. The sump shall include a dedicated automated pump to remove leachate and return it to the impoundment.
15. Each Class II surface impoundment shall have a flow totalizer to measure leachate volumes pumped from the sump in order to track leakage rates.
16. Each Class II surface impoundment shall have an unsaturated zone monitoring system consisting of a pan lysimeter beneath the entire sump area of the impoundment.
17. Each Class II surface impoundment shall have permanent markings on the liner, or a permanent freeboard gauge so that the freeboard can be observed and recorded at any time. The markings on the liner shall have increments no greater than 3-inches and if a vertical freeboard gauge is used the markings on the vertical freeboard gauge shall have increments no greater than 1-inch. The markings shall also clearly indicate the 2-foot freeboard level.
18. The Discharger shall comply with the recommendations in the geotechnical report prepared by Amec Foster Wheeler Environment & Infrastructure, Inc. dated 27 September 2016 in order to ensure seismic stability of waste containment structures.
19. The Discharger shall comply with all Standard Construction Specifications listed in Section F of the SPRRs dated April 2016.
20. The Discharger shall comply with all Storm Water Provisions listed in Section L of the SPRRs dated April 2016.

E. CLOSURE AND POST-CLOSURE MAINTENANCE SPECIFICATIONS

1. At closure of the Class II surface impoundment(s), the Discharger shall clean-close the unit(s) pursuant to Title 27 section 21400(b)(1). All precipitates, settled solids, liner materials, and adjacent natural geologic materials contaminated by wastes shall be completely removed and discharged to an appropriately permitted landfill facility. If after reasonable attempts to remove contaminated natural geologic materials, the Discharger demonstrates that removal of all remaining contamination is infeasible, the impoundment and/or overflow basins shall be closed as a landfill pursuant to Title 27 section 21400(b)(2)(A). In this event, the Discharger shall backfill and grade the area

- and submit a revised Final Closure and Post-Closure Maintenance Plan proposing a final cover meeting the requirements of Title 27 section 21090 and shall perform all post-closure maintenance in the approved Post-Closure Maintenance Plan.
2. The Discharger shall clean close the four 1.1-acre Class II surface impoundments P-1 through P-4 by 1 January 2018 in accordance with the Discharger's clean closure workplan approved in Central Valley Water Board staff letter dated 24 January 2017. Clean Closure shall be completed per the schedule in the Discharger's ROWD and as required in the Provisions section of these WDRs.
 3. Prior to closure of any Class II surface impoundment, the Discharger shall submit a Final Closure Plan prepared by a California-registered civil engineer or certified engineering geologist, and that contains all applicable information required in Title 27 section 21769 at least 120 days prior to the initiation of closure activities in order to provide Central Valley Water Board staff sufficient time for review and approval. The plan shall include any closure/post-closure elements proposed in the ROWD, and shall meet the requirements of this Order.
 4. The Discharger shall comply with all Closure and Post-Closure Maintenance Specifications listed in Section F of the SPRRs dated April 2016.

F. FINANCIAL ASSURANCE

1. Pursuant to Title 27 Section 22207, the Discharger shall submit a report by 30 April of each year showing that it has established an irrevocable \$2.6 million **closure fund** with the Central Valley Water Board named as beneficiary to ensure closure of the Class II surface impoundments in accordance with the cost estimate in the ROWD or provide an alternative state approved financial assurance mechanism per Title 27 section 22254. The financial assurances mechanism shall be one listed in Title 27 Section 22228 for which the Discharger is eligible. On 30 April 2009 the Discharger submitted an alternative financial assurance mechanism using (1) the Discharger's Special Repair funds, (2) appropriation of funds by the State Legislature, and (3) use of the Discharger's Operations Budget. Central Valley Water Board staff approved the alternative financial assurance mechanism as providing adequate financial assurances on 12 June 2009. These revised WDRs continue to accept the financial assurances mechanism provided by the Discharger so long as the Discharger continues to use the approved language in the 30 April 2009 certification submitted by the Discharger's deputy secretary. The Discharger shall submit a report by **30 April of each year** certifying that the financial assurance mechanism continues to be fully funded. .
2. Pursuant to Title 27 Section 22222, the Discharger shall submit a report showing that it has established an irrevocable \$2.6 million **corrective action fund** with the Central Valley Water Board named as beneficiary to ensure funds are available to address a known or reasonably foreseeable release from the Class II surface impoundments or provide an alternative state approved financial assurance mechanism per Title 27 section 22254. The financial assurances mechanism shall be one listed in Title 27 Section 22228 for which the Discharger is eligible. On 30 April 2009 the Discharger

submitted an alternative financial assurance mechanism using (1) the Discharger's Special Repair funds, (2) appropriation of funds by the State Legislature, and (3) use of the Discharger's Operations Budget. Central Valley Water Board staff approved the alternative financial assurance mechanism as providing adequate financial assurances on 12 June 2009. These revised WDRs continue to accept the financial assurances mechanism provided by the Discharger so long as the Discharger continues to use the approved language in the 30 April 2009 certification submitted by the Discharger's deputy secretary. The Discharger shall submit a report by 30 April of each year certifying that the financial assurance mechanism continues to be fully funded.

3. By **30 April** of each year, the Discharger shall submit a report to the Central Valley Water Board that reports the balance of both the closure and corrective action funds or the amounts of the Guarantees and the adjustments to account for inflation in accordance with Title 27 Section 22236.
4. The Discharger shall comply with all Standard Financial Assurance Specifications listed in Section H of the SPRRs dated April 2016.

G. MONITORING SPECIFICATIONS

1. The Discharger shall comply with the detection monitoring program provisions of Title 27 for groundwater, surface water, and the unsaturated zone, and in accordance with Monitoring and Reporting Program (MRP) R5-2017-XXXX, and the Standard Monitoring Specifications listed in Section I of the SPRRs dated April 2016.
2. The Discharger shall, for any waste management unit in a corrective action monitoring program, comply with the corrective action monitoring program provisions of Title 27, MRP R5-2017-XXXX, and the Standard Monitoring Specifications listed in Section I of SPRRs dated April 2016.
3. The Discharger shall comply with the Water Quality Protection Standard (WQPS) as specified in this Order, MRP R5-2017-XXXX, and the SPRRs dated April 2016. The Discharger shall use the same WQPS method used for determining a release throughout the site for its groundwater monitoring system.
4. The concentrations of the constituents of concern in waters passing the Point of Compliance (defined pursuant to Title 27, section 20164 as a vertical surface located at the hydraulically downgradient limit of the waste management unit that extends through the uppermost aquifer underlying the unit) shall not exceed the concentration limits established pursuant to MRP R5-2017-XXXX.
5. For each monitoring event, the Discharger shall determine whether the waste management unit is in compliance with the Water Quality Protection Standard using procedures specified in MRP R5-2017-XXXX and the Standard Monitoring Specifications in Section I of the SPRRs dated April 2016.

6. The Discharger shall comply with all Standard Monitoring Specifications and Response to a Release specifications listed in Sections I and J of the SPRRs dated April 2016.

H. PROVISIONS

1. The Discharger shall comply with the Standard Provisions and Reporting Requirements, dated April 2016, which are attached hereto and made part of this Order by reference. The Standard Provisions and Reporting Requirements contain important provisions and requirements with which the Discharger must comply. A violation of any of the Standard Provisions and Reporting Requirements is a violation of these waste discharge requirements.
2. Pursuant to Water Code section 13267, the Discharger shall comply with Monitoring and Reporting Program R5-2017-XXXX, which is attached to and made part of this Order. This compliance includes, but is not limited to, maintenance of waste containment facilities and precipitation and drainage controls and monitoring groundwater, the unsaturated zone, and surface waters throughout the active life of the waste management units and any applicable post-closure maintenance period. A violation of Monitoring and Reporting Program R5-2017-XXXX is a violation of these waste discharge requirements.
3. The Discharger shall not discharge waste to a Class II waste management unit until the following tasks are completed and approved by Central Valley Water Board staff:
 - a. Install a groundwater monitoring system.
 - b. Establish background groundwater quality through at least one year of monitoring (a minimum of 8 samples is required to develop statistical values for inorganic COCs).
 - c. Submit a report proposing a Water Quality Protection Standard including a method for calculating concentration limits.
4. Prior to discharging waste to a Class II waste management unit, the Discharger shall establish Financial Assurance funds for closure and corrective action.
5. The Discharger shall maintain a copy of this Order at the facility and make it available at all times to facility operating personnel, who shall be familiar with its contents, and to regulatory agency personnel.
6. The Discharger shall maintain legible records of the volume and type of waste discharged to the surface impoundments and the manner and location of the discharge. Such records shall be maintained at the facility until the beginning of the post-closure maintenance period. These records shall be available for review by representatives of the Central Valley Water Board and of the State Water Resources

Control Board, copies of these records shall be sent to the Central Valley Water Board upon request.

7. The Discharger shall comply with all applicable provisions Title 27 that are not specifically referred to in this Order.
8. The Discharger shall, in a timely manner, remove and relocate any wastes discharged at this facility in violation of this Order and of the California Water Code.
9. The Discharger shall immediately notify the Central Valley Water Board of any flooding, equipment failure, slope failure, or other change in site conditions which could impair the integrity of waste or leachate containment facilities or precipitation and drainage control structures.
10. In the event of any change in control or ownership of the facility or disposal areas, the Discharger must notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to this office. To assume operation as Discharger under this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. The request must contain the requesting entity's full legal name, the state of incorporation if a corporation, the name and address and telephone number of the persons responsible for contact with the Central Valley Water Board, and a statement. The statement shall comply with the signatory paragraph of General Provision K.2.e in the Standard Provisions and Reporting Requirements and state that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the California Water Code. Transfer shall be approved or disapproved by the Executive Officer.
11. The Discharger shall provide proof to the Central Valley Water Board **within sixty days after completing final closure** of the facility that the deed to the facility property, or some other instrument that is normally examined during title search, has been modified to include, in perpetuity, a notation to any potential purchaser of the property stating that:
 - a. The parcel has been used for disposal of wastes.
 - b. Land use options for the parcel are restricted in accordance with post-closure land uses set forth in any post-closure plan (if applicable).
 - c. In the event that the Discharger defaults on carrying out either any corrective action needed to address a release, groundwater monitoring, or any post-closure maintenance (if applicable), then the responsibility for carrying out such work falls to the property owner.

12. All technical reports required herein that involve planning, investigation, evaluation, or design, or other work requiring interpretation and proper application of engineering or geologic sciences, shall be prepared by or under the direction of persons registered to practice in California pursuant to California Business and Professions Code sections 6735, 7835, and 7835.1. As required by these laws, completed technical reports must bear the signature(s) and seal(s) of the registered professional(s) in a manner such that all work can be clearly attributed to the professional responsible for the work.
13. The following reports shall be submitted pursuant to Section 13267 of the California Water Code and shall be prepared by a California-registered civil engineer or certified engineering geologist:

<u>Task</u>	<u>Compliance Date</u>
A. Construction Plans	
Submit construction and design plans for review and approval.(see all Construction Specifications in Section D, above and Section F of the SPRRs.)	90 days prior to proposed construction
B. Groundwater Monitoring Plan	
1. Submit a groundwater monitoring plan and Well Installation Plan for review and approval for surface impoundments P-03 and P-04 that comply with Title 27 sections 20415(b)(1)(B) and 21760(a)(1)(3) prior to placement of waste.	1 August 2017
2. Install an approved groundwater monitoring system and collect sufficient background water quality data to establish WQPS.	1 October 2017

<u>Task</u>	<u>Compliance Date</u>
C. Unsaturated Zone Monitoring Plan	
1. Submit an unsaturated zone monitoring plan for review and approval for surface impoundments P-01 through P-04 that complies with Title 27 sections 20415(d)(2)(B) and 21760(a)(1)(3) prior to construction of surface impoundments P-01 through P-04.	1 August 2017
2. Install approved unsaturated zone monitoring system and collect sufficient background water quality data to establish WQPS.	Prior to construction of surface impoundment liner system.
D. Clean Closure of surface impoundments P-1 thru P-4	
Complete clean closure of ponds P-1 through P-4 by 1 January 2018 using approved clean closure plan dated 24 January 2017 and submit a final clean closure report.	90 days after clean closure of ponds P-1 thru P-4
E. Construction of new surface impoundments P-01 through P-04	
Complete construction of new ponds P-01 through P-04 per approved design criteria, plans, and specifications.	1 August 2018
F. Construction Report	
Submit a report for review and approval upon completion of construction demonstrating construction was in accordance with approved construction plans (see Standard Construction Specifications in Section F of the SPRRs).	60 days prior to proposed discharge
G. Establish WQPS for surface impoundments P-03 and P-04	
The Discharger shall establish WQPS per Title 27 section 20390 and concentration limits per Title 27 section 20400 using sufficient background data to establish background water quality prior to placement of waste in P-03 and P-04.	1 August 2018

14. In the event of any change in ownership of this waste management facility, the Discharger shall notify the succeeding owner or operator in writing of the existence of this Order. A copy of that notification shall be sent to the Central Valley Water Board.
15. The Central Valley Water Board will review this Order periodically and may revise requirements when necessary.
16. This Order shall take effect upon the date of adoption.
17. The Discharger shall comply with all General Provision listed in Section K of the SPRRs dated April 2016.

I, PAMELA C. CREEDON, 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 _____.

PAMELA C. CREEDON, Executive Officer

VKJ/WMH