

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

WASTE DISCHARGE REQUIREMENTS ORDER R5-2016-0092  
FOR  
CALIFORNIA DEPARTMENT OF CORRECTIONS AND REHABILITATION  
PLEASANT VALLEY STATE PRISON  
WASTEWATER TREATMENT FACILITY  
FRESNO COUNTY

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

**Background**

1. On 6 August 2015, the California Department of Corrections and Rehabilitation (Discharger or Producer) submitted a Report of Waste Discharge (RWD) for the construction of upgrades of the wastewater treatment facility (WWTF) at the Pleasant Valley State Prison (Prison) to produce disinfected tertiary wastewater.
2. The Discharger owns and operates the WWTF and is responsible for compliance with these Waste Discharge Requirements (WDRs).
3. The WWTF is at 24863 W. Jayne Avenue, Coalinga (Section 4, Township 21 South, Range 16 East, MDB&M).
4. WDRs Order 94-179, adopted by the Central Valley Water Board on 24 June 1994, prescribes requirements for a WWTF consisting of four lined aerated ponds, chlorination facilities, a chlorine contact tank, and four lined storage ponds. Order 94-179 allows a monthly average dry weather flow of 0.63 million gallons per day (mgd).
5. Revised Monitoring and Reporting Program (MRP) 94-179 was adopted on 27 August 2001. The MRP was revised to define influent "daily" frequency to not include weekends and holidays. The MRP was also revised to require daily pond monitoring for dissolved oxygen.
6. WDRs Order 94-179 and Revised MRP 94-179 need to be updated to ensure that the discharge is consistent with Central Valley Water Board plans and policies and prescribe requirements that reflect changes the Discharger will make to its WWTF. WDRs Order 94-179 and Revised MRP 94-179 will be rescinded and replaced with this Order.

### Existing Wastewater Treatment and Disposal

7. The current configuration of the WWTF includes a headworks that includes two bar screens, one mechanical bar screen and a manual bar screen as backup. Following the headworks, there are four lined aeration ponds operated in series, chlorination facilities and one chlorine contact tank, and four lined storage ponds.
8. The Discharger's Self-Monitoring Reports (SMRs) from January 2014 through December 2015 indicate the monthly average flow rates range from 0.258 mgd to 0.658 mgd.
9. Annual average wastewater influent characteristics, based on data contained the Discharger's SMRs from January 2014 through December 2015, are tabulated in Table 1.

Table 1. Annual Average Influent Quality

		Flow MGD	Biochemical Oxygen Demand mg/L	Settleable Matter ml/L	pH Unit
2014	Minimum	0.297	100	8	6.0
	Maximum	0.658	380	40	9.2
	Average	0.467	162	16	---
	Sampling Events	365	52	250	53
2015	Minimum	0.258	130	6	7.0
	Maximum	0.615	320	191	9.2
	Average	0.382	200	19	---
	Sampling Events	365	52	250	50

10. Annual average wastewater effluent characteristics for constituents of concern, based on data contained the Discharger's SMRs from January 2014 through December 2015 are tabulated in Table 2.

Table 2. Annual Average Effluent Quality

		Biochemical Oxygen Demand mg/L	Settleable Matter ml/L	pH pH Unit	Total Kjeldahl Nitrogen mg/L	Nitrate as Nitrogen mg/L	Electrical Conductivity umhos/cm	Total Coliform Organisms MPN/100mL
2014	Minimum	1.5	<0.01	5.67	2.9	0.80	809	<2
	Maximum	150	<0.01	9.35	19	16.0	958	110
	Average	14	<0.01	---	7.1	5.2	897	---
	Sampling Events	49	247	246	12	12	12	90
2015	Minimum	1.0	<0.01	6.3	3	0.9	786	<2
	Maximum	140	<0.01	9.8	5	6.2	1,189	33
	Average	15	<0.01	---	4	3.1	924	---
	Sampling Events	52	250	251	11	11	11	156

11. Treated wastewater is stored in the ponds prior to being used by Devine and Wood Farming Inc., (Devine and Wood) a California corporation.
12. On 1 June 1995, the Discharger and Devine and Wood entered into an agreement for Devine and Wood to take the treated wastewater generated from the Discharger's WWTF and apply it to approximately 1,575 acres of farmland. In September 1996, Devine and Wood submitted a Title 22 Engineering Report to the California Department of Public Health Drinking Water Program (now Division of Drinking Water). The Title 22 Engineering Report was approved on 12 November 1996.
13. The June 1995 agreement and the September 1996 Title 22 Engineering Report describe the 1,575 acres of farmland as follows:

Table 3. Use Area Parcels

Assessor's Parcel Number	Acres
085-020-43S	118.59
085-020-41S	299.09
085-020-22S	40
085-060-12S	320
085-320-31S	400
085-320-30S	160
085-320-16S	80
085-320-14S	157.58

Total 1575.26

14. On 27 February 1998, the Regional Water Board adopted Water Reclamation Requirements (WRR) Order 98-054 to regulate the use of treated wastewater by

Devine and Wood on 1,575 acres of Use Areas. WRR Order 98-054 will be rescinded once the upgrades are completed and the Discharger and/or any User has obtained coverage under the State Water Resource Control Board Order WQ 2016-0068-DDW, *Water Reclamation Requirements for Recycled Water Use* as required by Provision G.11 of this Order.

### **Proposed Wastewater Treatment and Disposal**

15. According to the August 2015 RWD, the WWTF upgrades will include: a submersible pump in storage Pond 4, a flocculation tank, suspended air flotation unit, granular media filter, storage tank for filter backwash, sludge dewatering geotextile tubes, and a second chlorine contact tank. A site map of the WWTF is shown in Attachment A and a process flow schematic is shown on Attachment B, both of which are attached hereto and made part of this Order by reference.
16. The wastewater at the WWTF will enter through the headworks and proceed to the four aeration ponds. The ponds are typically operated in series, but piping and valves are installed to provide the ability to divert flow from each of the ponds to Diversion Box No. 5 or to isolate and bypass a single pond. From Diversion Box No. 5, the wastewater will be pumped to a flocculation tank followed by a suspended air flotation unit. Coagulant is added to the wastewater upstream of the flocculation tank and then surfactant is added in the suspended air flotation unit. The wastewater then flows by gravity to three dual-media filters operated in parallel. Filter effluent flows by gravity to a storage tank and then to two six-pass serpentine chlorine contact tanks operated in series. Sodium Hypochlorite is injected at the beginning of the first chlorine contact tank. After the chlorine contact tanks, the treated wastewater will flow to the storage ponds.
17. The WWTF will produce an effluent anticipated to meet coliform levels of 2.2 Most Probable Number per 100 milliliters (MPN/100 mL).
18. The agreement between the Discharger and Devine and Wood for the delivery of treated wastewater from the WWTF to the Use Areas expired on 31 May 2015. By letter of 4 May 2015, both the Discharger and Devine and Wood extended the terms of their agreement through the construction of the WWTF upgrades to produce disinfected tertiary wastewater. At this time it is unknown if after completion of the WWTF upgrades, Devine and Wood will continue to accept wastewater generated by the Prison. This Order includes a Provision requiring the Discharger and/or any User of the treated wastewater to apply for coverage under the State Water Resource Control Board Order WQ 2016-0068-DDW, *Water Reclamation Requirements for Recycled Water Use*.
19. According to the RWD, sludge produced from the WWTF will be dewatered in geotextiles tubes installed inside roll-off bins. Water will drain through pores in the

geotextile tubes and into the roll-off bins. The rear door of the roll-off bin(s) will be propped open slightly to allow free water to drain from the roll-off bin(s) to a concrete slab below. Water on the concrete slab will drain to a sump and then pumped back to the aeration ponds for treatment. Once the geotextile tube(s) are filled, the geotextile tube(s) will be left to drain for up to a week. Then the geotextile tube(s) and solids will be dumped as a unit in a landfill. The roll-off bins will be returned to the WWTF and new geotextile tube(s) will be placed in the roll-off bin(s) and the process will be repeated.

20. The WWTF will have reliability and redundancy features that will include: a) multiple aeration ponds capable of producing oxidized wastewater with one pond not in operation; b) aerator alarms and alarms from downstream treatment processes; c) connection from the aeration ponds directly to the chlorine contact tanks will be removed, preventing the possibility of treated wastewater from going directly to disinfection and bypassing filtration; and d) emergency storage of wastewater not meeting Title 22 requirements.

### Wastewater Collection System

21. The Discharger's collection system is comprised of about five miles of gravity sewer lines and an influent pump station outside of the secured perimeters where flow is screened then pumped through one mile of force main to the WWTF.
22. On 2 May 2006, the State Water Resources Control Board (hereafter State Water Board) adopted a General Sanitary Sewer System Order (State Water Resources Control Board Order No. 2006-0003-DWQ, *Statewide General Waste Discharge Requirements for Sanitary Sewer Systems*) (the "General Order"). The General Order requires that all public agencies that own or operate sanitary sewers systems greater than one mile in length comply with the General Order. The Discharger's collection system is greater than one mile in length. The Discharger has applied for, and is enrolled under the General Order.

### Site-Specific Conditions

23. The Prison obtains its source water from the City of Coalinga via the Coalinga Canal which originates at the California Aqueduct. The quality of source water, based on the City of Coalinga Consumer Confidence Reports, is as follows.

Table 4. Source Water Quality

	Sodium mg/L	Chloride mg/L	Nitrate as Nitrate mg/L	Electrical Conductivity umhos/cm	Total Dissolved Solids mg/L	Iron mg/L
2012	86	110	2.7	640	250	---
2013	51	77	3.5	---	---	---
2014	74	110	1.6	---	---	---

2015	60	82	3.1	560	330	0.037
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24. According to the Federal Emergency Management Agency (FEMA) maps (Map Number 06019C3250H) the WWTF is in Zone X. Areas in Zone X have a 1 percent annual chance of flood with average depths are less than one foot or with drainage areas less than one square mile.
25. Soils in the vicinity of the WWTF are Posochanet clay loam, Excelsior sandy loam, and Lethent clay loam, according to the Web Soil Survey published by the United States Department of Agriculture Natural Resources Conservation Service. Posochanet clay loam, Excelsior sandy loam, and Lethent clay loam have land capability classifications of 2s, 1, and 3s, respectively. Soils with "Class 1" have slight limitations that restrict their use. Soils with "Class 2" have moderate limitations that restrict the choice of plants or require moderate conservation practices. Soils with "Class 3" have severe limitations that restrict the choice of plants or require special conservation practices, or both. The subclass "s" shows that the soil has limitations within the root zone, such as shallowness of the root zone, a high content of stones, a low available water capacity, low fertility, and excessive salinity or sodicity. Overcoming these limitations is difficult.
26. The WWTF is in an arid climate characterized by dry summers and mild winters. The rainy season generally extends from October through April. The average annual precipitation in the area is about 7.62 inches based on 70 years of data collected by the Western Regional Climate Center. Average annual pan evaporation in the discharge area is about 89 inches, according to the Department of Water Resources (DWR), Bulletin 73-79, *Evaporation from Water Surfaces in California*, November 1979.
27. Land uses in the vicinity of the WWTF consist of agriculture. The California Department of State Hospitals, Coalinga State Hospital is immediately adjacent to the Pleasant Valley State Prison to the east, its WWTF is regulated by WDRs R5-2013-0055. Primary crops grown in the area include cotton, pistachios, sugar beets, onions, and garlic according to the Fresno County 2000 Land Use Map published by DWR.

### **Basin Plan, Beneficial Uses, and Water Quality Objectives**

28. The *Water Quality Control Plan for the Tulare Lake Basin, Second Edition, revised January 2015* (the "Basin Plan") designates beneficial uses, establishes narrative and numerical water quality objectives, contains implementation plans and policies for protecting all waters of the Basin, and incorporates, by reference, plans and policies of the State Water Board. In accordance with Water Code section 13263(a), these waste discharge requirements implement the Basin Plan.
29. The WWTF is in Detailed Analysis Unit (DAU) No. 245, within the Pleasant Valley Basin hydrologic unit. The Basin Plan identifies the beneficial uses of groundwater in this DAU as municipal and domestic supply (MUN), agricultural supply (AGR), and industrial service supply (IND).
30. The WWTF is in the Kettleman Hydrologic Area (No. 558.50) of the South Valley Floor Hydrologic Unit, as depicted on hydrologic maps prepared by State Water Resources Control Board. The nearest surface water is the Los Gatos Creek, a Valley Floor Water at the location of the WWTF but it originates in the Juniper Ridge Hydrologic Area (No. 559.20) of the Coast Range Hydrologic Unit as a West Side Stream. As indicated in the Basin Plan, the beneficial uses of both Valley Floor Waters and West Side Streams that includes Los Gatos Creek are follows: agricultural supply (AGR), industrial service supply (IND); industrial process supply (PRO); water contact recreation (REC-1); non-contact water recreation (REC-2); warm freshwater habitat (WARM); wildlife habitat (WILD); rare, threatened, or endangered species (RARE); and groundwater recharge (GWR).
31. The Basin Plan includes a water quality objective for chemical constituents that at a minimum, requires waters designated as domestic or municipal supply to meet the Maximum Contaminant Levels (MCLs) specified in Title 22 of the California Code of Regulations (CCR) (Title 22). The Basin Plan recognizes that the Central Valley Water Board may apply limits more stringent than MCLs to ensure that waters do not contain chemical constituents in concentrations that adversely affect beneficial uses.
32. The Basin Plan establishes narrative water quality objectives for chemical constituents, taste and odors, and toxicity. The toxicity objective, in summary, requires that groundwater be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life associated with designated beneficial uses. Quantifying a narrative water quality objective requires a site-specific evaluation of those constituents that have the potential to impact water quality and beneficial uses.
33. The Basin Plan identifies the greatest long-term problem facing the entire Tulare Lake Basin as the increase in salinity in groundwater, which has accelerated due to the intensive use of soil and water resources by irrigated agriculture. The Basin Plan

recognizes that degradation is unavoidable until there is a long-term solution to the salt imbalance. Until then, the Basin Plan establishes several salt management requirements, including:

- a. The maximum EC in the discharge shall not exceed the EC of the source water plus 500 umhos/cm. When the source water is from more than one source, the EC shall be a weighted average of all sources.
- b. Discharges to areas that may recharge to good quality groundwater, shall not exceed an EC of 1,000 umhos/cm, a chloride of 175 mg/L, or a boron content of 1.0 mg/L. The Basin Plan generally applies these limits to industrial discharges to land.

### Groundwater Considerations

34. The Discharger does not have a groundwater monitoring well network at the WWTF. Groundwater in the area is approximately 373 feet below ground surface (bgs) according to *Lines of Equal Elevation of Water in Wells in Unconfined Aquifer* map published by the Department of Water Resources 2004.
35. Based on available groundwater data found in the United States Geological Survey National Water Information System: Mapper, the quality of groundwater in the area based on four nearby wells is shown in Table 5. For comparison purposes, State drinking water primary and secondary MCLs are listed at the end of the table, where bold, constituent concentrations are greater than listed MCLs.

Table 5. Quality of Groundwater

	Well Depth (feet bgs)	Date Sampled	Electrical Conductivity (umhos/cm)	Nitrate as Nitrogen (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Chloride (mg/L)
21S16E10N002M	350	9/1/1951	1,410	1.36	93	51	150	2.8	52
21S16E08E001M	463	9/1/1951	<b>1,890</b>	1.9	116	81	220	5	98
		2/29/1964	<b>1,950</b>	---	104	---	---	---	---
20S16E34H001M	850	6/23/2010	<b>1,740</b>	<0.039	72.2	19.7	276	2.8	93
20S16E32D003M	247	9/1/1951	<b>2,860</b>	1.47	160	160	320	7	160
Maximum Contaminant Levels			900/1,600	10	n/a	n/a	n/a	n/a	250

36. Groundwater is of poor quality with respect to electrical conductivity, with EC ranging from 1,740 to 2,860 umhos/cm. Generally, the quality of the current discharge with EC of 924 umhos/cm is of better quality than that of groundwater.



### Antidegradation Analysis

37. State Water Board Resolution 68-16, the Statement of Policy with Respect to Maintaining High Quality of Waters in California (*State Antidegradation Policy*) generally prohibits the Central Valley Water Board from authorizing activities that will result in the degradation of groundwater unless it has been shown that:
- a. The degradation does not result in water quality less than that prescribed in state and regional policies, including violation of one or more water quality objectives;
  - b. The degradation will not unreasonably affect present and anticipated future beneficial uses;
  - c. The Discharger employs Best Practicable Treatment or Control (BPTC) to minimize degradation; and
  - d. The degradation is consistent with the maximum benefit to the people of the state.
38. Constituents of concern in the discharge that have the potential to degrade groundwater include salts and nutrients. This Order establishes terms and conditions of discharge to ensure that the discharge does not unreasonably affect present and anticipated uses of groundwater and includes groundwater limitations that apply water quality objectives established in the Basin Plan to protect beneficial uses. The discharge will not unreasonably affect present and anticipated future beneficial uses of groundwater because:
- a. For salinity, the Basin Plan contains effluent limits of EC of source water plus 500 umhos/cm and 1,000 umhos/cm maximum for discharges to areas that may recharge to good quality groundwater. With an average source water EC of 600 umhos/cm, the average discharge EC of 924 umhos/cm (2015 annual average) meets the Basin Plan limit of source water plus 500 umhos/cm (1,100 umhos/cm). The EC of the discharge is also less than the Basin Plan cap of 1,000 umhos/cm, less than the EC of first encountered groundwater, and is not expected to degrade groundwater with respect to EC.
  - b. Regarding nitrate as nitrogen, the upgraded WWTF is designed to remove total nitrogen and this Order includes an effluent limit that requires the effluent total nitrogen to be 10 mg/L or less. In addition, the treatment ponds and storage ponds are lined, limiting the amount of wastewater percolating to groundwater. Based on this, the discharge is not expected to cause exceedences of water quality objectives nor impair beneficial uses.

39. This Order includes extensive influent and effluent monitoring requirements to verify that the discharge does not cause violations of water quality objectives or impairment of beneficial uses.
40. The WWTF, described in Findings 15 through 20, will provide treatment and control of the discharge that incorporates:
  - a. Tertiary treatment of wastewater to 2.2 MPN/100mL for Total Coliform Organisms;
  - b. Chlorine disinfection;
  - c. Sludge hauled off-site;
  - d. An operation and maintenance manual;
  - e. Lined treatment and storage ponds to limit the amount of wastewater that percolates to groundwater;
  - f. Certified operators to ensure proper operation and maintenance; and
  - g. Source water and discharge monitoring.

The Board finds that the preceding treatment and control measures represent BPTC for this discharge.

41. Generally, limited degradation of groundwater by some of the typical waste constituents of concern (e.g., EC and nitrate) released with discharge from a municipal wastewater utility after effective source control, treatment, and control is consistent with maximum benefit to the people of the state. The degradation will not unreasonably affect present and anticipated beneficial uses of groundwater, or result in water quality less than water quality objectives.
42. This Order is consistent with the *Antidegradation Policy* since (a) the limited degradation allowed by this Order will not result in water quality less than water quality objectives, or unreasonably affect present and anticipated beneficial uses, (b) the Discharger has implemented BPTC to minimize degradation, and (c) the limited degradation is of maximum benefit to people of the State.

### **Water Recycling Regulatory Considerations**

43. Domestic wastewater contains pathogens harmful to humans that are typically measured by means of total or fecal coliform, as indicator organisms. The State Water Resources Control Board Division of Drinking Water (formerly the California Department of Public Health Drinking Water Program), which has primary statewide responsibility for protecting water quality and the public health, has established statewide criteria in Title 22, section 60301 et seq. for the use of recycled water.
44. On 3 February 2009, the State Water Board adopted Resolution 2009-0011, *Adoption of a Policy for Water Quality Control for Recycled Water* (Recycled Water Policy). The recycled water policy promotes the use of recycled water to achieve sustainable local water supplied and reduced greenhouse gases.
45. On 23 April 2009, the Central Valley Water Board adopted Resolution R5-2009-0028, *In Support of Regionalization, Reclamation, Recycling and Conservation for Wastewater Treatment Plant*. Resolution R5-2009-0028 encourages water recycling, water conservation, and regionalization of wastewater treatment facilities. It requires the municipal wastewater treatment agencies to document:
  - a. Efforts to promote new or expanded wastewater recycling opportunities and programs;
  - b. Water conservation measures; and
  - c. Regional wastewater management opportunities and solutions (e.g., regionalization).
46. Title 22, section 60323, requires recyclers of treated municipal wastewater to submit an engineering report detailing the use of recycled water, contingency plans, and safeguards.
  - a. For the use of disinfected secondary recycled water: in September 1996, Devine and Wood Farming Inc. submitted a Title 22 Engineering Report to the Division of Drinking Water for the discharge of disinfected secondary wastewater generated by the Discharger to 1,575 acres of farmland owned by Devine and Wood Farming Inc. On 12 November 1996, the Division of Drinking Water approved the Title 22 Engineering Report.
  - b. For the WWTF upgrades to treat up to disinfected tertiary: the Discharger submitted to the Division of Drinking Water a Title 22 Engineering Report dated January 2015. By letter 24 March 2015, the Division of Drinking Water provided the Discharger comments regarding the January 2015 Title 22 Engineering Report. Subsequently, the Discharger submitted a revised Title 22 Engineering Report to the Division of Drinking Water. By letter 13 April 2016, the Division of Drinking Water accepted the

Title 22 Engineering Report and recommends that the Central Valley Water Board request the Discharger to develop an Operations Plan as a condition of approval of the proposed Project. This Order includes a Provision requiring the Discharger to submit an Operations Plan for the WWTF.

### **Other Regulatory Considerations**

47. In compliance with Water Code section 106.3, it is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This order promotes that policy by requiring discharges to meet maximum contaminant levels designed to protect human health and ensure that water is safe for domestic uses.
48. Based on the threat and complexity of the discharge, the WWTF is determined to be classified as 2B as defined below:
  - a. Category 2 threat to water quality: “ 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: “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 of Class 3 waste management units.
49. California Code of Regulations, Title 27 (“Title 27”) contains regulatory requirements for the treatment, storage, processing, and disposal of solid waste, which includes designated waste, as defined by Water Code section 13173. However, Title 27 exempts certain activities from its provisions. Discharges regulated by this Order are exempt from Title 27 pursuant to provisions that exempt domestic sewage, wastewater, and reuse. The exemption, found at Title 27, section 20090, states in part:

The following activities shall be exempt from the SWRCB-promulgated provisions of this subdivision, so long as the activity meets, and continues to meet, all preconditions listed:

- (a) Sewage – Discharges of domestic sewage or treated effluent which are regulated by WDRs issued pursuant to Chapter 9, Division 3, Title 23 of this code, or for which WDRs have been waived, and which are consistent with applicable water quality objectives, and treatment or storage facilities associated with municipal wastewater treatment plants, provided that residual sludges or solid waste from wastewater treatment facilities shall be discharged only in accordance with the applicable SWRCB-promulgated provisions of this division.

(b) Wastewater – Discharges of wastewater to land, including but not limited to evaporation ponds, percolation ponds, or subsurface leachfields if the following conditions are met:

- (1) The applicable regional water quality control board has issued WDRs, reclamation requirements, or waived such issuance;
- (2) The discharge is in compliance with applicable water quality control plan; and
- (3) The wastewater does not need to be managed according to Chapter 11, Division 4.5, Title 22 of this code as a hazardous waste.

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50. The wastewater treatment units and discharge of effluent authorized herein, and the treatment and storage facilities associated with the discharge, are exempt from the requirements of Title 27 as follows:
  - a. The Central Valley Water Board is issuing WDRs.
  - b. The discharge is in compliance with the Basin Plan, and;
  - c. The treated effluent discharged to the storage ponds and Use Areas does not need to be managed as hazardous waste.
51. On 1 April 2014, the State Water Board adopted Order 2014-0057-DWQ (NPDES General Permit CAS000001) specifying waste discharge requirements for discharges of storm water associated with industrial activities. Order 2014-0057-DWQ supersedes State Water Board Order 97-03-DWQ (NPDES General Permit CAS000001) and became effective 1 July 2015. Order 2014-0057-DWQ requires all applicable industrial dischargers to apply for coverage under the new General Order by the effective date. Storm water generated by this facility does not discharge to waters of the U.S. Coverage under Order 2014-0057-DWQ is not required at this time.
52. On 2 May 2006, the State Water Board adopted Statewide General Waste Discharge Requirements for Sanitary Sewer Systems General Order 2006-0003-DWQ (the General Order). The General Order requires all public agencies that own or operate sanitary sewer systems greater than one mile in length to comply with the Order. The Discharger is enrolled under the General Order.

53. Water Code section 13267(b) states 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 discharged or discharging, or who proposes to discharge waste within its region...that could affect the quality of waters 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.

54. The technical reports required by this Order and monitoring reports required by the attached MRP R5-2016-0092 are necessary to assure compliance with these waste discharge requirements. The Discharger operates the wastewater treatment facility that discharges the waste subject to this Order.
55. The California Department of Water Resources sets standards for the construction and destruction of groundwater wells (hereafter DWR Well Standards), as described in *California Well Standards Bulletin 74-90* (June 1991) and *Water Well Standards: State of California Bulletin 74-81* (December 1981). These standards, and any more stringent standards adopted by the state or county pursuant to Water Code section 13801, apply to all monitoring wells used to monitor the impacts of wastewater storage or disposal governed by this Order.
56. The issuance of this Order is exempt from the provisions of California Environmental Quality Act ("CEQA")(Pub. Resources Code, § 21000 et seq.) in accordance with California Code of Regulations, title 14, section 15301, which exempts the "operation, repair, maintenance, [and] permitting ... of existing public or private structures, facilities, mechanical equipment, or topographical features" from environmental review. This action may also be considered exempt because it is an action by a regulatory agency for the protection of natural resources (Cal. Code Regs., tit. 14, § 15307.) and an action by a regulatory agency for the protection of the environment (Cal. Code Regs., tit. 14, § 15308.).
57. The United States Environmental Protection Agency (EPA) has promulgated biosolids reuse regulations in 40 Code of Federal Regulations part 503, Standards for the Use or Disposal of Sewage Sludge, which establish management criteria for protection of ground and surface waters, sets limits and application rates for heavy metals, and establishes stabilization and disinfection criteria. The Central Valley Water Board is not the implementing authority for the 40 CFR 503 regulations. The Discharger may have separate and/or additional compliance, reporting, and permitting responsibilities to EPA.
58. Pursuant to Water Code section 13263(g), discharge is a privilege, not a right, and adoption of this Order does not create a vested right to continue the discharge.

### Public Notice

59. All the above and the supplemental information and details in the attached Information Sheet, which is incorporated by reference herein, were considered in establishing the conditions of discharge of this Order.
60. The Discharger and interested agencies and persons have been notified of the intent to prescribe waste discharge requirements for this discharge, and they have been provided an opportunity to submit written comments and recommendations and an opportunity for a public hearing.
61. All comments pertaining to the discharge were heard and considered in a public meeting.

**IT IS HEREBY ORDERED** that Waste Discharge Requirements Order 94-179 and Revised Monitoring and Reporting Program 94-179 are rescinded, and that pursuant to Water Code sections 13263 and 13267, the California Department of Corrections and Rehabilitation, its agents, successors, and assigns, in order to meet the provisions contained in Division 7 of the Water Code and regulations adopted thereunder, shall comply with the following:

#### A. Discharge Prohibitions

1. Discharge of waste to surface waters or surface water drainage courses is prohibited.
2. Discharge of waste classified as 'hazardous', as defined in California Code of Regulations, Title 22, section 66261.1 et seq., is prohibited.
3. Bypass or overflow of untreated or partially treated wastes is prohibited, except as allowed by Standard Provisions E.2 in *Standard Provisions and Reporting Requirements for Waste Discharge Requirements*, dated 1 March 1991.
4. Discharge of wastewater in a manner or location other than that described herein or in the RWD and its amendments is prohibited.
5. Discharge of toxic substances into the wastewater treatment system or evaporation/percolation ponds such that biological treatment mechanics are disrupted is prohibited.

#### B. Flow Limitations [Compliance shall be determined at INF-001]

1. The monthly average dry weather flow shall not exceed 0.63 mgd.

### C. Effluent Limitations

1. Effluent shall not exceed the following limitations when disinfected 23 secondary wastewater is discharged. **[Compliance shall be determined at EFF-001<sup>1</sup>]**

a)

<u>Constituent</u>	<u>Units</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>
BOD <sub>5</sub> <sup>1</sup>	mg/L	40	80
TSS <sup>2</sup>	mg/L	40	80
Total Nitrogen	mg/L	10	-

<sup>1</sup> Five-day biochemical oxygen demand at 20°C.

<sup>2</sup> Total suspended solids

- b) The arithmetic mean of BOD<sub>5</sub> and TSS in effluent samples collected over a monthly period shall not exceed 20 percent of the arithmetic mean of the values for influent samples collected at approximately the same times during the same period (80 percent removal).
- c) The 12-month rolling average EC of the discharge shall not exceed the 12-month rolling average EC of the source water plus 500 µmhos/cm. Compliance with this effluent limitation shall be determined monthly.
- d) The median concentration of total coliform bacteria in disinfected secondary-2.2 recycled water shall exceed the following (Title 22, section 60301.220):
  - i. a most probable number (MPN) of 2.2 total coliform bacteria per 100 milliliters utilizing the bacteriological results of the last seven days for which the analyses have been completed; and
  - ii. an MPN of 23 total coliform bacteria per 100 milliliters in more than one sample in any 30-day period.

<sup>1</sup> Monitoring location EFF-001 is described in Monitoring and Reporting Program R5-2016-0092



2. Effluent shall not exceed the following limitations when disinfected tertiary wastewater is discharged and once Provision G.13 has been satisfied and approved by the Executive Officer. **[Compliance shall be determined at EFF-001<sup>1</sup>]**

a)

<u>Constituent</u>	<u>Units</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>
BOD <sub>5</sub> <sup>1</sup>	mg/L	10	20
TSS <sup>2</sup>	mg/L	10	20
Total Nitrogen	mg/L	10	---

<sup>1</sup> Five-day biochemical oxygen demand at 20°C.

<sup>2</sup> Total suspended solids

- b) The arithmetic mean of BOD<sub>5</sub> and TSS in effluent samples collected over a monthly period shall not exceed 10 percent of the arithmetic mean of the values for influent samples collected at approximately the same times during the same period (90 percent removal).
- c) The 12-month rolling average EC of the discharge shall not exceed the 12-month rolling average EC of the source water plus 500 µmhos/cm. Compliance with this effluent limitation shall be determined monthly.
- d) The median concentration of total coliform bacteria in disinfected tertiary recycled water shall not exceed the following (Title 22, section 60301.230(b)):
- i. a MPN of 2.2 total coliform bacteria per 100 milliliters utilizing the bacteriological results of the last seven days for which the analyses have been completed; and
  - ii. an MPN of 23 total coliform bacteria per 100 milliliters in more than one sample in any 30-day period; and
  - iii. a MPN of 240 total coliform bacteria per 100 milliliters at any time.

#### D. Discharge Specifications

1. No waste constituent shall be released, discharged, or placed where it will cause violation of Groundwater Limitations of this Order.
2. Wastewater treatment, storage, and disposal shall not cause pollution or a nuisance as defined by Water Code section 13050.
3. The discharge shall remain within the permitted waste treatment/containment structures and storage ponds and Use Areas at all times.

4. The Discharger shall operate all systems and equipment to optimize the quality of the discharge.
5. All conveyance, treatment, storage, and disposal units shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency.
6. Public contact with effluent at the WWTF shall be precluded through such means as fences, signs, or acceptable alternatives.
7. All wastewater discharged shall be oxidized, coagulated (if necessary), filtered, and disinfected.
8. The Discharger shall comply with all terms and conditions of the most current Title 22 regulations pertaining to the production and use of recycled water.
9. The chlorine disinfection process following filtration shall provide a CT (the product of total chlorine residual and modal contact time measured at the same point) value of not less than 450 milligrams-minutes per liter at all times with a modal contact time of at least 90 minutes, based on peak dry weather design flow (Title 22, section 60301.230(a)(1)).
10. When coagulation is used, the turbidity of disinfected tertiary recycled water that is passed through undisturbed soil or a filter media shall not exceed the following (Title 22, section 60301.320(a)(2)):
  - a. An average of 2.0 NTU within a 24-hour period;
  - b. 5.0 NTU more than five percent of the time within a 24-hour period; and
  - c. 10 NTU at any time.
11. Recycled water used for the surface irrigation of food crops where the edible portion is produced above ground and not contacted by the recycled water shall be at least disinfected secondary 2.2 recycled water (Title 22, section 60304(b)).
12. Recycled water used for the surface irrigation of fodder and fiber crops and pasture for animals not producing milk for human consumption, and seed crops not eaten by humans shall be at least undisinfectated secondary recycled water (Title 22, section 60304(d))
13. The use of recycled water shall comply with the provision of Title 22 CCR. Further, the Discharger and/or Users must obtain written approval from the Executive Officer prior to use of recycled water for uses other than those specified in this Order.

14. Objectionable odors shall not be perceivable beyond the limits of the WWTF property at an intensity that creates or threatens to create nuisance conditions.
15. As a means of discerning compliance with Discharge Specification D.14, the dissolved oxygen (DO) content in the upper one foot of any wastewater pond shall not be less than 1.0 mg/L for three consecutive sampling events. If the DO in any single pond is below 1.0 mg/L for three consecutive sampling events, the Discharger shall report the findings to the Central Valley Water Board in writing within 10 days and shall include a specific plan to resolve the low DO results within 30 days.
16. The Discharger shall maintain and operate ponds sufficiently to protect the integrity of containment levees and prevent overtopping or overflows. Unless a California registered civil engineer certifies (based on design, construction, and conditions of operation and maintenance) that less freeboard is adequate, the operating freeboard shall never be less than two feet (measured vertically). As a means of management and to discern compliance with this requirement, the Discharger shall install and maintain a permanent marker with calibration marks that indicates the water level at the design capacity and enables determination of available operational freeboard.
17. The treatment, storage, and disposal ponds or structures shall have sufficient capacity to accommodate allowable wastewater flow, design seasonal precipitation, and ancillary inflow and infiltration during the winter while ensuring continuous compliance with all requirements of this Order. 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.
18. On or about **1 October** of each year, available pond storage capacity shall be at least equal the volume necessary to comply with Flow Limitation B.1.
19. All ponds shall be managed to prevent breeding of mosquitoes. In particular,
  - a. An erosion control plan should assure that coves and irregularities are not created around the perimeter of the water surface.
  - b. Weeds shall be minimized through control of water depth, harvesting, and herbicides.
  - c. Dead algae, vegetation and other debris shall not accumulate on the water surface.
  - d. The Discharger shall consult and coordinate with the local Mosquito Abatement District to minimize the potential for mosquito breeding as needed to supplement the above measures.

20. Newly constructed or rehabilitated berms or levees (excluding internal berms that separate ponds or control the flow of water within the pond) shall be designed and constructed under the supervision of a California Registered Civil Engineer.
21. The Discharger shall periodically monitor sludge accumulation in the wastewater treatment/storage ponds at least every five years beginning in 2016, and shall periodically remove sludge as necessary to maintain adequate treatment and storage capacity. Specifically, if the estimated volume of the sludge in the ponds exceeds five percent of the permitted reservoir capacity, the Discharger shall complete sludge cleanout within 12 months after the date of the estimate.

#### **E. Groundwater Limitations**

1. Release of waste constituents from any treatment, reclamation or storage component associated with the discharge shall not cause or contribute to groundwater:
  - a. Containing constituent concentrations in excess of the concentrations specified below or natural background quality, whichever is greater:
    - (i) Nitrate as Nitrogen of 10 mg/L.
    - (ii) Total Coliform Organisms of 2.2 MPN/100 mL.
    - (iii) For constituents identified in Title 22, the primary and secondary MCLs quantified therein.
  - b. Containing taste or odor-producing constituents, toxic substances, or any other constituent in concentrations that cause nuisance or adversely affect beneficial uses.

#### **F. Solids and Sludge/Biosolids Disposal Specifications**

Sludge in this document means the solid, semisolid, and liquid residues removed during primary, secondary, or advance wastewater treatment processes. Solid waste refers to grit and screening material generated during preliminary treatment. Residual sludge means sludge that will not be subject to further treatment at the WWTF. Biosolids refers to sludge that has been treated and tested and shown to be capable of being beneficially used as soil amendment for agriculture, silviculture, horticulture, and land reclamation activities pursuant to federal and state regulations.

1. Sludge and solid waste shall be removed from screens, sumps, aeration basins, ponds, clarifiers, etc., as needed to ensure optimal plant operation.

2. Any handling and storage of residual sludge, solid waste, and biosolids on property of the WWTF shall be temporary (i.e., no longer than two years) and controlled and contained in a manner that minimizes leachate formation and precludes infiltration of waste constituents into soils in a mass or concentration that will violate the groundwater limitations of this Order.
3. Residual sludge, solid waste, and biosolids shall be disposed of in a manner approved by the Executive Officer and consistent with Title 27. Removal for further treatment, disposal, or reuse at sites (i.e., landfill, composting sites, and soil amendment sites) operated in accordance with valid waste discharge requirements issued by the Central Valley Water Board will satisfy this specification.
4. Use of biosolids as a soil amendment shall comply with valid waste discharge requirements issued by a regional water board or the State Water Board or a local (e.g., county) program authorized by a regional water board. In most cases, this means the General Biosolids Order (State Water Board Water Quality Order No. 2004-12-DWQ, "General Waste Discharge Requirements for the Discharge of Biosolids to Land for Use as a Soil Amendment in Agricultural, Silvicultural, Horticultural, and Land Reclamation Activities"). For a biosolids use project to be authorized by the General Biosolids Order, the Discharger must file a complete Notice of Applicability for each project.
5. Any proposed change in sludge use or disposal practice shall be reported in writing to the Executive Officer at least 90 days in advance of the change.

## **G. Provisions**

1. The Discharger shall comply with MRP R5-2016-0092, which is part of this Order, and any revisions thereto as adopted by the Central Valley Water Board or approved by the Executive Officer.
2. The Discharger shall comply with the *Standard Provisions and Reporting Requirements for Waste Discharge Requirements*, dated 1 March 1991 (Standard Provisions), which are attached hereto and made part of this Order.
3. A copy of this Order, including its MRP, Information Sheet, Attachments, and Standard Provisions, shall be kept at the discharge facility for reference by operating personnel. Key operating personnel shall be familiar with its contents.
4. The Discharger shall comply with all conditions of this Order, including timely submittal of technical and monitoring reports. On or before each report due date, the Discharger shall submit the specified document to the Central Valley Water Board or, if appropriate, a written report detailing compliance or noncompliance with the specific schedule date and task. If noncompliance is being reported, then the

Discharger shall state the reasons for such noncompliance and provide an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Central Valley Water Board in writing when it returns to compliance with the time schedule. Violations may result in enforcement action, including Central Valley Water Board or court orders requiring corrective action or imposing civil monetary liability, or in revision or rescission of this Order.

5. The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also include adequate laboratory controls and appropriate quality assurance procedures. This Provision requires the operation of back-up or auxiliary facilities or similar systems that are installed by the Discharger when the operation is necessary to achieve compliance with the conditions of this Order.
6. The Discharger shall provide certified wastewater treatment plant operators in accordance with CCR, Title 23, division 3, chapter 26.
7. The Discharger shall report promptly to the Central Valley Water Board any material change or proposed change in the character, location, or volume of the discharge.
8. At least **90 days** prior to termination or expiration of any lease, contract, or agreement involving disposal or recycling areas or off-site reuse of effluent, used to justify the capacity authorized herein and assure compliance with this Order, the Discharger shall notify the Central Valley Water Board in writing of the situation and of what measures have been taken or are being taken to assure full compliance with this Order.
9. In the event of any change in control or ownership of land or WWTF and storage facilities presently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to the Central Valley Water Board.
10. 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 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 Standard Provision B.3 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 Water Code. If approved by the Executive Officer, the transfer request will be submitted to the Central Valley Water Board for its

consideration of transferring the ownership of this Order at one of its regularly scheduled meetings.

11. **At least 90 days** prior to start-up of the upgraded WWTF and initiating discharge of disinfected tertiary recycled water to the Use Areas, the Discharger and/or User of the wastewater shall submit a Notice of Intent (NOI) for coverage under State Water Resources Control Board Order WQ 2016-0068-DDW, *Water Reclamation Requirements for Recycled Water Use* or any subsequent revisions. At a minimum the NOI needs to include: (a) type and level of wastewater treatment; (b) description on where and how the recycled water will be applied; (c) contact information for recycled water producers and users; (d) rules and regulations for recycled water use, and responsibilities of personnel involved in the recycling water program; and (e) a copy of the final approved Title 22 Engineering Report prepared in accordance with Title 22, section 60323 with approval letter from the Division of Drinking Water. This provision shall be considered satisfied when the Executive Officer issues a Notice of Applicability for Coverage under State Water Resources Control Board Order WQ 2016-0068-DDW, *Water Reclamation Requirements for Recycled Water Use*.
12. **By (180 days following Order adoption)**, the Discharger shall submit an Operations Plan describing operation practices at the WWTF for Executive Officer approval. The Operations Plan must comply with requirements set forth by the Division of Drinking Water as a condition of approving the January 2015 Title 22 Engineering Report.
13. **Upon completion of construction and prior to operation** of the WWTF, the Discharger shall submit a technical report in the form of an engineering report and certification that demonstrates the upgrades to the WWTF have been completed and the effluent can meet the requirements of disinfected tertiary wastewater for Executive Officer approval. Upon approval of the engineering report from the Executive Officer the Discharger shall comply with WDRs Order R5-2016-0092, Effluent Limitations C.5 through C.8 and continue monitoring in accordance to the requirements in Monitoring and Reporting Program R5-2016-0092.
14. The Discharger shall submit the technical reports and work plans required by this Order for consideration by the Executive Officer and incorporate comments the Executive Officer may have in a timely manner, as appropriate. Unless expressly stated otherwise in this Order, the Discharger shall proceed with all work required by the following provisions by the due dates specified.
15. 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 work plans for investigations and studies, 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 bear the professional's signature and stamp.

16. The Discharger shall report to the Central Valley Water Board any toxic chemical release data it reports to the State Emergency Response Commission within 15 days of reporting the data to the Commission pursuant to section 313 of the "Emergency Planning and Community Right to Know Act of 1986."
17. The Discharger shall continue to maintain coverage under, and comply with *Statewide General Waste Discharge Requirements for Sanitary Sewer Systems*, Water Quality Order 2006-0003-DWQ and the Revised General WDRs Monitoring and Reporting Program Order 2008-0002-EXEC, and any subsequent revisions thereto as adopted by the State Water Board. Water Quality Order 2006-0003 and Order 2008-0002-EXEC requires the Discharger to notify the Central Valley Water Board and take remedial action upon the reduction, loss, or failure of the sanitary sewer system resulting in a sanitary sewer overflow.
18. The Discharger shall not allow pollutant-free wastewater to be discharged into the WWTF collection, treatment, and disposal systems in amounts that significantly diminish the system's capability to comply with this Order. Pollutant-free wastewater means storm water (i.e., inflow), groundwater (i.e., infiltration), cooling waters, and condensates that are essentially free of pollutants.
19. If the Central Valley Water Board determines that the discharge has a reasonable potential to cause or contribute to an exceedance of a water quality objective, or to create a condition of nuisance or pollution, this Order may be reopened for consideration of additional requirements.
20. The Central Valley Water Board is currently implementing the CV-SALTS initiative to develop a Basin Plan amendment that will establish a salt and nitrate management plan for the Central Valley. Through this effort the Basin Plan will be amended to define how the narrative water quality objectives are to be interpreted for the protection of agricultural use. If new information or evidence indicates that groundwater limitations are different that those prescribed herein are appropriate, this Order will be reopened to incorporate such limits.
21. The Central Valley Water Board will review this Order periodically and will revise requirements when necessary.

If, in the opinion of the Executive Officer, the Discharger fails to comply with the provisions of this Order, 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. Failure to comply with this Order may result in the assessment of Administrative Civil Liability of up to \$10,000 per violation, per day, depending on the violation, pursuant to the Water Code, including sections 13268, 13350 and 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 CCR, Title 23, section 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 filling petitions may be found on the Internet at:

[http://www.waterboards.ca.gov/public\\_notices/petitions/water\\_quality/](http://www.waterboards.ca.gov/public_notices/petitions/water_quality/)

or will be provided upon request.

I, 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 6 December 2016.

*Original signed by*

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PAMELA C. CREEDON, Executive Officer

Order Attachments:

- A Site Map
- B Upgraded WWTF Configuration – Process Flow Schematic
- Monitoring and Reporting Program R5-2016-0092
- Information Sheet
- Standard Provisions (1 March 1991)

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM R5-2016-0092  
FOR  
CALIFORNIA DEPARTMENT OF CORRECTIONS AND REHABILITATION  
PLEASANT VALLEY STATE PRISON  
WASTEWATER TREATMENT FACILITY  
FRESNO COUNTY

This Monitoring and Reporting Program (MRP) is required pursuant to Water Code section 13267.

The Discharger shall not implement any changes to this MRP unless and until the Central Valley Water Board adopts or the Executive Officer issues a revised MRP. Changes to sample location shall be established with concurrence of Central Valley Water Board staff, and a description of the revised stations shall be submitted for approval by the Executive Officer. All samples shall be representative of the volume and nature of the discharge or matrix of material sampled. All analyses shall be performed in accordance with **Standard Provisions and Reporting Requirements for Waste Discharge Requirements**, dated 1 March 1991 (Standard Provisions).

Field test instruments (such as pH) may be used provided that the operator is trained in the proper use of the instrument and each instrument is serviced and/or calibrated at the recommended frequency by the manufacturer and in accordance with manufacturer instructions.

Analytical procedures shall comply with the methods and holding times specified in the following: *Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater* (EPA); *Test Methods for Evaluating Solid Waste* (EPA); *Methods for Chemical Analysis of Water and Wastes* (EPA); *Methods for Determination of Inorganic Substances in Environmental Samples* (EPA); *Standard Methods for the Examination of Water and Wastewater* (APHA/AWWA/WEF); and *Soil, Plant and Water Reference Methods for the Western Region* (WREP 125). Approved editions shall be those that are approved for use by the United States Environmental Protection Agency or the California Department of Public Health's Environmental Laboratory Accreditation Program. The Discharger may propose alternative methods for approval by the Executive Officer.

If monitoring consistently shows no significant variation in magnitude of a constituent concentration or parameter after at least 12 months of monitoring, the Discharger may request the MRP be revised to reduce monitoring frequency. The proposal must include adequate technical justification for the requested reduction in monitoring frequency.

A glossary of terms used within this MRP is included on page 9.

MONITORING AND REPORTING PROGRAM ORDER R5-2016-0092  
 CALIFORNIA DEPARTMENT OF CORRECTIONS AND REHABILITATION  
 PLEASANT VALLEY STATE PRISON  
 WASTEWATER TREATMENT FACILITY  
 FRESNO COUNTY

The Discharger shall monitor the following locations to demonstrate compliance with the requirements of this Order.

Monitoring Location Name	Monitoring Location Description
INF-001	Location where a representative sample of the wastewater treatment facility (WWTF) influent can be obtained prior to any additives, treatment processes, and WWTF return flow.
EFF-001	Location where a representative sample of the WWTF effluent can be obtained prior to discharge into the storage ponds.
PND-001 through PND-004	Storage Ponds Nos. 1 through 4
SWS-001	Source Water Supply
SLD-001	Location where a representative sample of the WWTF sludge/biosolids can be obtained from the geotextile tubes.

### INFLUENT MONITORING

The Discharger shall monitor the influent to the WWTF at INF-001 as follows:

<u>Frequency</u>	<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>
Continuous	Flow	mgd	Meter
Weekly	pH	pH units	Grab
Weekly	Electrical Conductivity (EC)	umhos/cm	Grab
Weekly	Total Dissolved Solids (TDS)	mg/L	24-hour composite
Weekly	Total Suspended Solids (TSS)	mg/L	24-hour composite
Weekly	Biochemical Oxygen Demand <sub>5</sub> (BOD <sub>5</sub> )	mg/L	24-hour composite
Monthly	Monthly Average Discharge Flow	mgd	Computed

### EFFLUENT MONITORING

The Discharger shall monitor treated effluent at EFF-001. Effluent monitoring shall include the following:

MONITORING AND REPORTING PROGRAM ORDER R5-2016-0092  
 CALIFORNIA DEPARTMENT OF CORRECTIONS AND REHABILITATION  
 PLEASANT VALLEY STATE PRISON  
 WASTEWATER TREATMENT FACILITY  
 FRESNO COUNTY

<u>Frequency</u>	<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>
Continuous	Turbidity	NTU	Metered <sup>1</sup>
Continuous	Chlorine, Total Residual <sup>2</sup>	mg/L	Metered
Daily <sup>3</sup>	Total Coliform Organisms	MPN/100 mL	Grab
Weekly	pH	pH Units	Grab
Weekly	EC	umhos/cm	Grab
Weekly	TSS	mg/L	24-hour composite
Weekly	BOD <sub>5</sub>	mg/L	24-hour composite
Monthly	TDS	mg/L	24-hour composite
Monthly	Total Kjeldahl Nitrogen (TKN)	mg/L	24-hour composite
Monthly	Nitrate as Nitrogen (NO <sub>3</sub> as N)	mg/L	24-hour composite
Monthly	Nitrite as Nitrogen (NO <sub>2</sub> as N)	mg/L	24-hour composite
Monthly	Ammonia as Nitrogen (NH <sub>3</sub> as N)	mg/L	24-hour composite
Monthly	Total Nitrogen (TN)	mg/L	Computed
Annually	General Minerals	mg/L	24-hour composite

- <sup>1</sup> In accordance with the requirements of Title 22, section 60301.320, the Discharger shall report: a) the 24 hour average effluent turbidity; b) the percentage of time the effluent turbidity is greater than 5 NTU within a 24-hour period; and c) the instantaneous maximum effluent turbidity. If coagulation is not being used, the instantaneous maximum filter turbidity shall also be reported.
- <sup>2</sup> The minimum total chlorine residual concentration for each calendar day shall be reported in the monthly self-monitoring reports. The contact time values (the product of total chlorine residual and modal contact time measured at the same point) for the following conditions shall be reported in the monthly self-monitoring reports for each calendar day: 1) the modal contact time at the peak daily flow rate and the corresponding chlorine residual at the time; 2) the minimum total chlorine residual concentrations and the corresponding modal contact time; 3) the maximum total chlorine residual concentration and the corresponding modal contact time; and 4) the modal contact time at the minimum daily flow rate and the corresponding total chlorine residual concentration.
- <sup>3</sup> Excluding weekends and holidays.

### POND MONITORING

A permanent marker (e.g., staff gages) shall be placed in the storage ponds. The marker shall have calibrations indicating water level at the design capacity and available operational freeboard. Effluent storage pond monitoring shall include at least the following:

<u>Frequency</u>	<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>
Weekly	DO <sup>1</sup>	mg/L	Grab <sup>2</sup>
Weekly	Freeboard	Feet <sup>3</sup>	Observation

- <sup>1</sup> Should the DO be below 1.0 mg/L during a weekly sampling event, the Discharger shall take all reasonable steps to correct the problem and commence daily DO monitoring in the affected ponds until the problem has been resolved.
- <sup>2</sup> DO shall be measured between 8:00 am and 10:00 am and shall be taken opposite the pond inlet at a depth of approximately one-foot.
- <sup>3</sup> To the nearest tenth of a foot.

MONITORING AND REPORTING PROGRAM ORDER R5-2016-0092  
CALIFORNIA DEPARTMENT OF CORRECTIONS AND REHABILITATION  
PLEASANT VALLEY STATE PRISON  
WASTEWATER TREATMENT FACILITY  
FRESNO COUNTY

The Discharger shall inspect the condition of the storage pond weekly and record visual observations in a bound logbook. Notations shall include observations of whether weeds are developing in the water or along the bank, and their location; whether grease, dead algae, vegetation, scum, or debris are accumulating on the storage pond surface and their location; whether burrowing animals or insects are present; and the color of the reservoirs (e.g., dark green, dull green, yellow, gray, tan, brown, etc.). A summary of the entries made in the log shall be included in the subsequent monitoring report.

### SOURCE WATER MONITORING

For each source (either well or surface water supply), the Discharger shall calculate the flow-weighted average concentrations for the specified constituents utilizing monthly flow data and the most recent chemical analysis conducted in accordance with Title 22 drinking water requirements. Alternatively, the Discharger may establish representative sampling stations within the distribution system serving the same area as is served by the WWTF.

<u>Frequency</u>	<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>
Quarterly	Flow-Weighted EC	umhos/cm	Computed Average
Annually	General Minerals <sup>1</sup>	mg/L	Grab

<sup>1</sup>With the exception of wastewater samples, samples must be filtered. If field filtering is not feasible, samples shall be collected in unpreserved containers and submitted to the laboratory within 24 hours with a request (on the chain-of-custody form) to immediately filter then preserve the sample.

### SLUDGE/BIOSOLIDS MONITORING

If used for land application, the Discharger shall sample sludge/biosolids at SLD-001 for the following:

Arsenic	Copper	Nickel
Cadmium	Lead	Selenium
Molybdenum	Mercury	Zinc

Monitoring shall be conducted: using the methods in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods” (SW-846) and updates thereto, as required in Title 40 of the Code of Federal Regulations (40 CFR), Part 503.8(b)(4).

The Discharger shall demonstrate that treated sludge (i.e., biosolids) meets Class A or Class B pathogens reduction levels by one of the methods listed in 40 CFR, Part 503.32. The Discharger shall track and keep records of the operational parameters used to achieve Vector Attraction Reduction requirements in 40 CFR, Part 503.33(b). The Discharger needs to demonstrate that the facility where sludge is hauled to complies with Title 40 CFR, Part 503.

MONITORING AND REPORTING PROGRAM ORDER R5-2016-0092  
CALIFORNIA DEPARTMENT OF CORRECTIONS AND REHABILITATION  
PLEASANT VALLEY STATE PRISON  
WASTEWATER TREATMENT FACILITY  
FRESNO COUNTY

## REPORTING

All monitoring results shall be reported in **Quarterly Monitoring Reports** which are due by the first day of the second month after the calendar quarter. Therefore, monitoring reports are due as follows:

First Quarter Monitoring Report: **1 May**  
Second Quarter Monitoring Report: **1 August**  
Third Quarter Monitoring Report: **1 November**  
Fourth Quarter Monitoring Report: **1 February**

The Central Valley Water Board has gone to a Paperless Office System. All regulatory documents, submissions, materials, data, monitoring reports, and correspondence shall be converted to a searchable Portable Document Format (PDF) and submitted electronically. Documents that are less than 50MB should be mailed to: [centralvalleyfresno@waterboards.ca.gov](mailto:centralvalleyfresno@waterboards.ca.gov). Documents that are 50MB or larger should be transferred to a disc and mailed to the appropriate regional water board office, in this case 1685 E Street, Fresno, CA, 93706.

To ensure that your submittals are routed to the appropriate staff, the following information block should be included in any email used to transmit documents to this office:

Program: Non-15, WDID: 5D100805001, Facility Name: Pleasant Valley State Prison WWTF,  
Order: R5-2016-0092

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized in such a manner that illustrates clearly, whether the Discharger complies with waste discharge requirements, and shall discuss any violations that occurred during the reporting period and all actions taken or planned for correcting violations, such as operation or facility modifications. If the Discharger has previously submitted a report describing corrective actions or a time schedule for implementing the corrective actions, reference to the previous correspondence is satisfactory.

In addition to the details specified in Standard Provision C.3, monitoring information shall include the method detection limit (MDL) and the reporting limit (RL) or practical quantitation limit (PQL). If the regulatory limit for a given constituent is less than the RL (or PQL), then any analytical results for that constituent that are below the RL (or PQL) but above the MDL shall be reported and flagged as estimated.

MONITORING AND REPORTING PROGRAM ORDER R5-2016-0092  
CALIFORNIA DEPARTMENT OF CORRECTIONS AND REHABILITATION  
PLEASANT VALLEY STATE PRISON  
WASTEWATER TREATMENT FACILITY  
FRESNO COUNTY

Laboratory analysis reports do not need to be included in the monitoring reports; however, the laboratory reports must be retained for a minimum of three years in accordance with Standard Provision C.3.

All monitoring reports shall comply with the signatory requirements in Standard Provision B.3. Monitoring data or discussions submitted concerning WWTF performance must also be signed and certified by the chief plant operator. If the chief plant operator is not in direct line of supervision of the laboratory function for a Discharger conducting any of its own analyses, reports must also be signed and certified by the chief of the laboratory.

All monitoring reports 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.

In the future, the State or Central Valley Water Board may notify the Discharger to electronically submit and upload monitoring reports using the State Water Board's California Integrated Water Quality System (CIWQS) Program Web site <http://www.waterboards.ca.gov/ciwqs/index.html> or similar system. Electronic submittal to CIWQS, when implemented, will meet the requirements of our Paperless Office System.

**A. All Quarterly Monitoring Reports** shall include the following:

**Wastewater Reporting**

1. The results of Influent, Effluent, and Pond Monitoring specified on page 2 and 3.
2. For each month of the quarter, calculation of the maximum daily flow and the monthly average flow.
3. For each of the quarters, calculation of the 12-month rolling average EC of the discharge using the EC value for that month averaged with EC values for the previous 11 months.
4. For each month of the quarter, calculation of the monthly average effluent BOD<sub>5</sub> and TSS concentrations, and calculation of the percent removal of BOD<sub>5</sub> and TSS compared to the influent.
5. A summary of the notations made in the pond monitoring log during each quarter. Copies of log pages covering the quarterly reporting period shall not be submitted unless requested by Central Valley Water Board staff.

MONITORING AND REPORTING PROGRAM ORDER R5-2016-0092  
CALIFORNIA DEPARTMENT OF CORRECTIONS AND REHABILITATION  
PLEASANT VALLEY STATE PRISON  
WASTEWATER TREATMENT FACILITY  
FRESNO COUNTY

### **Source Water Reporting**

1. The results of Source Water Monitoring specified on page 4.
2. For each month of the quarter, calculation of the flow-weighted 12-month rolling average EC of the source water using monthly flow data and the source water EC values for the most recent four quarters.

**B. Fourth Quarter Monitoring Reports**, in addition to the above, shall include the following:

### **Wastewater Treatment Facility Information**

1. The names, certificate grades, and general responsibilities of all persons in charge of wastewater treatment and disposal.
2. The names and telephone numbers of persons to contact regarding the WWTF for emergency and routine situations.
3. A statement certifying when the flow meter and other monitoring instruments and devices were last calibrated, including identification of who performed the calibrations (Standard Provision C.4).
4. A statement whether the current operation and maintenance manual, sampling plan, and contingency plan, reflect the WWTF as currently constructed and operated, and the dates when these documents were last reviewed for adequacy.
5. The results of an annual evaluation conducted pursuant to Standard Provision E.4 and a figure depicting monthly average discharge flow for the previous five calendar years.
6. A summary and discussion of the compliance record for the reporting period. If violations have occurred, the report shall also discuss the corrective actions taken and planned to bring the discharge into full compliance with this Order.

### **Sludge/Biosolids Monitoring**

1. Annual production totals in dry tons or cubic yards.
2. A description of disposal methods, including the following information related to the disposal methods used. If more than one method is used, include the percentage disposed of by each method.



MONITORING AND REPORTING PROGRAM ORDER R5-2016-0092  
CALIFORNIA DEPARTMENT OF CORRECTIONS AND REHABILITATION  
PLEASANT VALLEY STATE PRISON  
WASTEWATER TREATMENT FACILITY  
FRESNO COUNTY

- a. For landfill disposal, include: the name and location of the landfill, and the Order number of WDRs that regulate it.
- b. For land application, include: the location of the site, and the Order number of any WDRs that regulate it.
- c. For incineration, include: the name and location of the site where incineration occurs, the Order number of WDRs that regulate the site, the disposal method of ash, and the name and location of the facility receiving ash (if applicable).
- d. For composting, include: the location of the site, and the Order number of any WDRs that regulate it.

The Discharger shall implement the above monitoring program on the first day of the month following adoption of this Order.

Ordered by: Original signed by  
PAMELA C. CREEDON, Executive Officer

6 December 2016

\_\_\_\_\_  
(Date)

MONITORING AND REPORTING PROGRAM ORDER R5-2016-0092  
 CALIFORNIA DEPARTMENT OF CORRECTIONS AND REHABILITATION  
 PLEASANT VALLEY STATE PRISON  
 WASTEWATER TREATMENT FACILITY  
 FRESNO COUNTY

## GLOSSARY

BOD <sub>5</sub>	Five-day biochemical oxygen demand		
CBOD	Carbonaceous BOD		
DO	Dissolved oxygen		
EC	Electrical conductivity at 25° C		
FDS	Fixed dissolved solids		
NTU	Nephelometric turbidity unit		
TKN	Total Kjeldahl nitrogen		
TDS	Total dissolved solids		
TSS	Total suspended solids		
Continuous	The specified parameter shall be measured by a meter continuously.		
24-Hour Composite	Samples shall be a flow-proportioned composite consisting of at least eight aliquots.		
Daily	Samples shall be collected at least every day.		
Twice Weekly	Samples shall be collected at least twice per week on non-consecutive days.		
Weekly	Samples shall be collected at least once per week.		
Twice Monthly	Samples shall be collected at least twice per month during non-consecutive weeks.		
Monthly	Samples shall be collected at least once per month.		
Bimonthly	Samples shall be collected at least once every two months (i.e., six times per year) during non-consecutive months.		
Quarterly	Samples shall be collected at least once per calendar quarter. Unless otherwise specified or approved, samples shall be collected in January, April, July, and October.		
Semiannually	Samples shall be collected at least once every six months (i.e., two times per year). Unless otherwise specified or approved, samples shall be collected in April and October.		
Annually	Samples shall be collected at least once per year. Unless otherwise specified or approved, samples shall be collected in October.		
mg/L	Milligrams per liter		
mL/L	milliliters [of solids] per liter		
ug/L	Micrograms per liter		
umhos/cm	Micromhos per centimeter		
mgd	Million gallons per day		
MPN/100 mL	Most probable number [of organisms] per 100 milliliters		
General Minerals	Analysis for General Minerals shall include at least the following:		
	Alkalinity	Chloride	Sodium
	Bicarbonate	Hardness	Sulfate
	Calcium	Magnesium	TDS
	Carbonate	Potassium	Nitrate
	General Minerals analyses shall be accompanied by documentation of cation/anion balance.		

# INFORMATION SHEET

INFORMATION SHEET ORDER R5-2016-0092  
CALIFORNIA DEPARTMENT OF CORRECTIONS AND REHABILITATION  
PLEASANT VALLEY STATE PRISON  
WASTEWATER TREATMENT FACILITY  
FRESNO COUNTY

## **Background**

Waste Discharge Requirements (WDRs) Order 94-179, adopted 24 June 1994 regulates the discharge of a monthly average dry weather flow of 0.63 million gallons per day (mgd) of disinfected secondary wastewater from the California Department of Corrections and Rehabilitation (Discharger), Pleasant Valley State Prison (Prison), wastewater treatment facility (WWTF) to four lined storage ponds prior to selling the treated wastewater to a farmer for reclamation.

On 1 June 1995, the Discharger and Devine and Wood Farming Inc., (Devine and Wood) entered into an agreement for Devine and Wood to take the treated wastewater generated from the Discharger's WWTF and apply it to approximately 1,575 acres of farmland. In September 1996, Devine and Wood submitted a Title 22 Engineering Report to the California Department of Public Health Drinking Water Program (now Division of Drinking Water). The Title 22 Engineering Report was approved on 12 November 1996.

On 27 February 1998, the Central Valley Water Board adopted Water Reclamation Requirements (WRR) 98-054 for use of treated wastewater from the Prison's WWTF by Devine and Wood on 1,575 acres of Use Areas.

On 27 August 2001, the Central Valley Water Board issued Revised Monitoring and Reporting Program (MRP) 94-179 to revise the definition of influent "daily" frequency to not include weekends and holidays. The Revised MRP also required daily pond monitoring for dissolved oxygen.

On 6 August 2015, the Discharger submitted a Report of Waste Discharge (RWD) for upgrades to the Pleasant Valley State Prison wastewater treatment facility (WWTF) to produce disinfected tertiary wastewater.

## **Existing Wastewater Treatment**

The WWTF currently consists of a headworks, four line aeration ponds operated in series, chlorination facilities and one chlorine contact tank, and four lined storage ponds.

Annual average wastewater effluent characteristics for constituents of concern, based on data contained the Discharger's SMRs from January 2014 through December 2015 are tabulated in Table 1.

Table 1. Annual Average Effluent Quality

		Biochemical Oxygen Demand mg/L	Settleable Matter ml/L	pH pH Unit	Total Kjehldahl Nitrogen mg/L	Nitrate as Nitrogen mg/L	Electrical Conductivity umhos/cm
2014	Minimum	1.5	<0.01	5.67	2.9	0.80	809
	Maximum	150	<0.01	9.35	19	16.0	958
	Average	14	<0.01	---	7.1	5.2	897
	Sampling Events	49	247	246	12	12	12
2015	Minimum	1.0	<0.01	6.3	3	0.9	786
	Maximum	140	<0.01	9.8	5	6.2	1,189
	Average	15	<0.01	---	4	3.1	924
	Sampling Events	52	250	251	11	11	11

### Proposed Upgrades

Proposed upgrades to the WWTF include: a submersible pump in storage Pond 4, a flocculation tank, suspended air flotation unit, granular media filter, storage tank for filter backwash, sludge dewatering geotextile tubes, and a second chlorine contact tank. Construction of the WWTF upgrades is expected to begin in fall 2016.

The agreement between the Discharger and Devine and Wood for the delivery of treated wastewater from the WWTF to the Use Areas expired on 31 May 2015. By letter 4 May 2015, both the Discharger and Devine and Wood extended the terms of their agreement through the construction of the WWTF upgrades to produce disinfected tertiary wastewater. In the interim, Devine and Wood will continue discharging in accordance with the requirements in WRRs 98-054. At this time it is unknown if after completion of the WWTF upgrades, Devine and Wood will continue to accept wastewater generated by the Prison. This Order includes a Provision requiring the Discharger and/or any User of the treated wastewater to apply for coverage under the State Water Resource Control Board Order WQ 2016-0068-DDW, *Water Reclamation Requirements for Recycled Water Use*.

### Groundwater Conditions

The WWTF does not have a groundwater monitoring well network. Groundwater in the area is approximately 373 feet below ground surface according to the Lines of Equal Elevation of Water in Wells, Unconfined Aquifer map published by the Department of Water Resources in 2004.

The quality of groundwater in the area based on four nearby wells found in the United States Geological Survey National Water Information System: Mapper, are shown in Table 2. For

comparison purposes, State drinking water primary and secondary maximum contaminant levels (MCLs) are listed at the end of the table; where bold, constituent concentrations are greater than listed MCLs.

Table 2. Quality of Groundwater

	Well Depth (feet bgs)	Date Sampled	Electrical Conductivity (umhos/cm)	Nitrate as Nitrogen (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Chloride (mg/L)
21S16E10N002M	350	9/1/1951	1,410	1.36	93	51	150	2.8	52
21S16E08E001M	463	9/1/1951	<b>1,890</b>	1.9	116	81	220	5	98
		2/29/1964	<b>1,950</b>	---	104	---	---	---	---
20S16E34H001M	850	6/23/2010	<b>1,740</b>	<0.039	72.2	19.7	276	2.8	93
20S16E32D003M	247	9/1/1951	<b>2,860</b>	1.47	160	160	320	7	160
Maximum Contaminant Levels			900/1,600	10	n/a	n/a	n/a	n/a	250

**Basin Plan, Beneficial Uses, and Regulatory Considerations**

The *Water Quality Control Plan for the Tulare Lake Basin, Second Edition, revised January 2015* (Basin Plan) designates beneficial uses, establishes narrative and numerical water quality objectives, contains implementation plans and policies for protecting waters of the Basin, and incorporates, by reference, plans and policies of the State Water Board.

The Basin Plan identifies the greatest long-term water quality problem facing the entire Tulare Lake Basin is increasing salinity in groundwater, a process accelerated due to the intensive use of soil and water resources by irrigated agriculture. The Basin Plan recognizes that degradation is unavoidable until there is a long-term solution to the salt imbalance. Until then, the Basin Plan establishes several salt management requirements, including:

- a. The maximum EC of the effluent discharged to land shall not exceed the EC of source water plus 500 umhos/cm. When the source water is from more than one source, the EC shall be a weighted average of all sources.
- b. Discharges to areas that may recharge to good quality groundwater shall not exceed an EC of 1,000 umhos/cm, a chloride content of 175 mg/L, or a boron content of 1.0 mg/L. The Basin Plan generally applies these limits to industrial discharges to land.

**Proposed Order Terms and Conditions**

**Discharge Prohibitions, Specifications and Provisions**

The proposed Order prohibits the discharge of waste to surface waters and to surface water drainage courses.

The proposed Order restricts the discharge to a monthly average dry flow limit of 0.63 mgd. The proposed Order also includes effluent limits for both the current WWTF configuration and upgraded WWTF. The BOD and TSS limits for the current WWTF configuration are 40 mg/L monthly average and 80 mg/L daily maximum. The BOD and TSS limit for the upgraded WWTF will be 10 mg/L monthly average and 20 mg/L daily maximum. This order also includes effluent limits for EC, turbidity and total coliform that are consistent with the Basin Plan.

The proposed Order's provisions regarding storage pond dissolved oxygen and freeboard are consistent with Central Valley Water Board policies for the prevention of nuisance conditions, and are applied to all such facilities.

The proposed Order prescribes groundwater limitations that ensure the discharge does not affect present and anticipated beneficial uses of groundwater.

The proposed Order requires the submittal of a copy of the final approved Title 22 Engineering Report with approval letter from the State Water Board, Division of Drinking water and a Notice of Intent for coverage under State Water Resources Control Board Order WQ 2016-0068-DDW, *Water Reclamation Requirements for Recycled Water Use* or any subsequent revision, prior to the start-up of the WWTF and implementation of the wastewater recycling operations.

The proposed Order requires the Discharger to submit an Operations Plan for Executive Officer approval.

The proposed Order includes a provision requiring the Discharger to submit an engineering certification that the upgrades to the WWTF have been completed and the effluent can meet the requirements of disinfected tertiary wastewater.

### **Monitoring Requirements**

Section 13267 of the Water Code authorizes the Central Valley Water Board to require the District to submit monitoring and technical reports as necessary to investigate the impact of a waste discharge on waters of the State.

The proposed Order includes influent and effluent monitoring requirements, pond monitoring, source water monitoring, and sludge/biosolids monitoring. This monitoring is necessary to characterize the discharge, evaluate compliance with effluent limitations prescribed by the Order, and evaluate groundwater quality and the extent of degradation, if any, caused by the discharge.

### **Legal Effect of Rescission of Prior WDRs or Orders on Existing Violations**

The Board's rescission of prior waste discharge requirements and/or monitoring and reporting orders does not extinguish any violations that may have occurred during the time those waste discharge requirements or orders were in effect. The Central Valley Water Board reserves the right to take enforcement actions to address violations of prior prohibitions, limitations, specifications, requirements, or provisions of rescinded waste discharge requirements or orders as allowed by law.

### **Reopener**

The conditions of discharge in the proposed Order were developed based on currently available technical information and applicable water quality laws, regulations, policies, and plans, and are intended to assure conformance with them. It may be appropriate to reopen the Order if new technical information is received or if applicable laws and regulations change.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

STANDARD PROVISIONS AND REPORTING REQUIREMENTS  
FOR  
WASTE DISCHARGE REQUIREMENTS

1 March 1991

**A. General Provisions:**

1. The requirements prescribed herein do not authorize the commission of any act causing injury to the property of another, or protect the Discharger from liabilities under federal, state, or local laws. This Order does not convey any property rights or exclusive privileges.
2. The provisions of this Order are severable. If any provision of this Order is held invalid, the remainder of this Order shall not be affected.
3. After notice and opportunity for a hearing, this Order may be terminated or modified for cause, including, but not limited to:
  - a. Violation of any term or condition contained in this Order;
  - b. Obtaining this Order by misrepresentation, or failure to disclose fully all relevant facts;
  - c. A change in any condition that results in either a temporary or permanent need to reduce or eliminate the authorized discharge;
  - d. A material change in the character, location, or volume of discharge.
4. Before making a material change in the character, location, or volume of discharge, the discharger shall file a new Report of Waste Discharge with the Regional Board. A material change includes, but is not limited to, the following:
  - a. An increase in area or depth to be used for solid waste disposal beyond that specified in waste discharge requirements.
  - b. A significant change in disposal method, location or volume, e.g., change from land disposal to land treatment.
  - c. The addition of a major industrial, municipal or domestic waste discharge facility.
  - d. The addition of a major industrial waste discharge to a discharge of essentially domestic sewage, or the addition of a new process or product by an industrial facility resulting in a change in the character of the waste.



## Waste Discharge to Land

5. Except for material determined to be confidential in accordance with California law and regulations, all reports prepared in accordance with terms of this Order shall be available for public inspection at the offices of the Board. Data on waste discharges, water quality, geology, and hydrogeology shall not be considered confidential.
6. The discharger shall take all reasonable steps to minimize any adverse impact to the waters of the state resulting from noncompliance with this Order. Such steps shall include accelerated or additional monitoring as necessary to determine the nature and impact of the noncompliance.
7. The discharger shall maintain in good working order and operate as efficiently as possible any facility, control system, or monitoring device installed to achieve compliance with the waste discharge requirements.
8. The discharger shall permit representatives of the Regional Board (hereafter Board) and the State Water Resources Control Board, upon presentations of credentials, to:
  - a. Enter premises where wastes are treated, stored, or disposed of and facilities in which any records are kept,
  - b. Copy any records required to be kept under terms and conditions of this Order,
  - c. Inspect at reasonable hours, monitoring equipment required by this Order, and
  - d. Sample, photograph and video tape any discharge, waste, waste management unit, or monitoring device.
9. For any electrically operated equipment at the site, the failure of which would cause loss of control or containment of waste materials, or violation of this Order, the discharger shall employ safeguards to prevent loss of control over wastes. Such safeguards may include alternate power sources, standby generators, retention capacity, operating procedures, or other means.
10. The fact that it would have been 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 violations of the Order.
11. Neither the treatment nor the discharge shall create a condition of nuisance or pollution as defined by the California Water Code, Section 13050.
12. The discharge shall remain within the designated disposal area at all times.

**B. General Reporting Requirements:**

1. In the event the discharger does not comply or will be unable to comply with any prohibition or limitation of this Order for any reason, the discharger shall notify the Board by telephone at **(916) 464-3291** [*Note: Current phone numbers for all three Regional Board offices may be found on the internet at [http://www.swrcb.ca.gov/rwqcb5/contact\\_us](http://www.swrcb.ca.gov/rwqcb5/contact_us).*] as soon as it or its agents

## Waste Discharge to Land

have knowledge of such noncompliance or potential for noncompliance, and shall confirm this notification in writing within **two weeks**. The written notification shall state the nature, time and cause of noncompliance, and shall include a timetable for corrective actions.

2. The discharger shall have a plan for preventing and controlling accidental discharges, and for minimizing the effect of such events.

This plan shall:

- a. Identify the possible sources of accidental loss or leakage of wastes from each waste management, treatment, or disposal facility.
- b. Evaluate the effectiveness of present waste management/treatment units and operational procedures, and identify needed changes of contingency plans.
- c. Predict the effectiveness of the proposed changes in waste management/treatment facilities and procedures and provide an implementation schedule containing interim and final dates when changes will be implemented.

The Board, after review of the plan, may establish conditions that it deems necessary to control leakages and minimize their effects.

3. All reports shall be signed by persons identified below:
  - a. For a corporation: by a principal executive officer of at least the level of senior vice-president.
  - b. For a partnership or sole proprietorship: by a general partner or the proprietor.
  - c. For a municipality, state, federal or other public agency: by either a principal executive officer or ranking elected or appointed official.
  - d. A duly authorized representative of a person designated in 3a, 3b or 3c of this requirement if;
    - (1) the authorization is made in writing by a person described in 3a, 3b or 3c of this provision;
    - (2) the authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a waste management unit, superintendent, or position of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and
    - (3) the written authorization is submitted to the Board

Any person signing a document under this Section 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 inquiry of the 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.”

4. Technical and monitoring reports specified in this Order are requested pursuant to Section 13267 of the Water Code. Failing to furnish the reports by the specified deadlines and falsifying information in the reports, are misdemeanors that may result in assessment of civil liabilities against the discharger.
5. The discharger shall mail a copy of each monitoring report and any other reports required by this Order to:

California Regional Water Quality Control Board  
Central Valley Region  
11020 Sun Center Drive, #200  
Rancho Cordova, CA 95670-6114

*Note: Current addresses for all three Regional Board offices may be found on the internet at [http://www.swrcb.ca.gov/rwqcb5/contact\\_us](http://www.swrcb.ca.gov/rwqcb5/contact_us) or the current address if the office relocates.*

### **C. Provisions for Monitoring:**

1. All analyses shall be made in accordance with the latest edition of: (1) *Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater* (EPA 600 Series) and (2) *Test Methods for Evaluating Solid Waste* (SW 846-latest edition). The test method may be modified subject to application and approval of alternate test procedures under the Code of Federal Regulations (40 CFR 136).
2. Chemical, bacteriological, and bioassay analysis shall be conducted at a laboratory certified for such analyses by the State Department of Health Services. In the event a certified laboratory is not available to the discharger, analyses performed by a noncertified laboratory will be accepted provided a Quality Assurance-Quality Control Program is instituted by the laboratory. A manual containing the steps followed in this program must be kept in the laboratory and shall be available for inspection by Board staff. The Quality Assurance-Quality Control Program must conform to EPA guidelines or to procedures approved by the Board.

Unless otherwise specified, all metals shall be reported as Total Metals.

3. The discharger shall retain records of all monitoring information, including all calibration and maintenance records, all original strip chart recordings of continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to

## Waste Discharge to Land

complete the application for this Order. Records shall be maintained for a minimum of three years from the date of the sample, measurement, report, or application. This period may be extended during the course of any unresolved litigation regarding this discharge or when requested by the Regional Board Executive Officer.

Record of monitoring information shall include:

- a. the date, exact place, and time of sampling or measurements,
  - b. the individual(s) who performed the sampling of the measurements,
  - c. the date(s) analyses were performed,
  - d. the individual(s) who performed the analyses,
  - e. the laboratory which performed the analysis,
  - f. the analytical techniques or methods used, and
  - g. the results of such analyses.
4. All monitoring instruments and devices used by the discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated at least yearly to ensure their continued accuracy.
  5. The discharger shall maintain a written sampling program sufficient to assure compliance with the terms of this Order. Anyone performing sampling on behalf of the discharger shall be familiar with the sampling plan.
  6. The discharger shall construct all monitoring wells to meet or exceed the standards stated in the State Department of Water Resources *Bulletin 74-81* and subsequent revisions, and shall comply with the reporting provisions for wells required by Water Code Sections 13750 through 13755.22

**D. Standard Conditions for Facilities Subject to California Code of Regulations, Title 23, Division 3, Chapter 15 (Chapter 15)**

1. All classified waste management units shall be designed under the direct supervision of a California registered civil engineer or a California certified engineering geologist. Designs shall include a Construction Quality Assurance Plan, the purpose of which is to:
  - a. demonstrate that the waste management unit has been constructed according to the specifications and plans as approved by the Board.
  - b. provide quality control on the materials and construction practices used to construct the waste management unit and prevent the use of inferior products and/or materials which do not meet the approved design plans or specifications.
2. Prior to the discharge of waste to any classified waste management unit, a California registered civil engineer or a California certified engineering geologist must certify that the waste management unit meets the construction or prescriptive standards and performance goals in Chapter 15, unless an engineered alternative has been approved by the Board. In the case of an engineered alternative, the registered civil engineer or a certified engineering geologist must

## Waste Discharge to Land

certify that the waste management unit has been constructed in accordance with Board-approved plans and specifications.

3. Materials used to construct liners shall have appropriate physical and chemical properties to ensure containment of discharged wastes over the operating life, closure, and post-closure maintenance period of the waste management units.
4. Closure of each waste management unit shall be performed under the direct supervision of a California registered civil engineer or a California certified engineering geologist.

**E. Conditions Applicable to Discharge Facilities Exempted from Chapter 15 Under Section 2511**

1. If the discharger's wastewater treatment plant is publicly owned or regulated by the Public Utilities Commission, it shall be supervised and operated by persons possessing certificates of appropriate grade according to California Code of Regulations, Title 23, Division 4, Chapter 14.
2. By-pass (the intentional diversion of waste streams from any portion of a treatment facility, except diversions designed to meet variable effluent limits) is prohibited. The Board may take enforcement action against the discharger for by-pass unless:
  - a. (1) By-pass was unavoidable to prevent loss of life, personal injury, or severe property damage. (Severe property damage means substantial physical damage to property, damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a by-pass. Severe property damage does not mean economic loss caused by delays in production); and
    - (2) There were no feasible alternatives to by-pass, such as the use of auxiliary treatment facilities or retention of untreated waste. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a by-pass that would otherwise occur during normal periods of equipment downtime or preventive maintenance; or
  - b. (1) by-pass is required for essential maintenance to assure efficient operation; and
    - (2) neither effluent nor receiving water limitations are exceeded; and
    - (3) the discharger notifies the Board ten days in advance.

The permittee shall submit notice of an unanticipated by-pass as required in paragraph B.1. above.

3. A discharger that wishes to establish the affirmative defense of an upset (see definition in E.6 below) in an action brought for noncompliance shall demonstrate, through properly signed, contemporaneous operating logs, or other evidence, that:

## Waste Discharge to Land

- a. an upset occurred and the cause(s) can be identified;
- b. the permitted facility was being properly operated at the time of the upset;
- c. the discharger submitted notice of the upset as required in paragraph B.1. above; and
- d. the discharger complied with any remedial measures required by waste discharge requirements.

In any enforcement proceeding, the discharger seeking to establish the occurrence of an upset has the burden of proof.

4. A discharger whose waste flow has been increasing, or is projected to increase, shall estimate when flows will reach hydraulic and treatment capacities of its treatment, collection, and disposal facilities. The projections shall be made in January, based on the last three years' average dry weather flows, peak wet weather flows and total annual flows, as appropriate. When any projection shows that capacity of any part of the facilities may be exceeded in four years, the discharger shall notify the Board by **31 January**.
5. Effluent samples shall be taken downstream of the last addition of wastes to the treatment or discharge works where a representative sample may be obtained prior to disposal. Samples shall be collected at such a point and in such a manner to ensure a representative sample of the discharge.
6. Definitions
  - a. Upset means an exceptional incident in which there is unintentional and temporary noncompliance with effluent limitations because of factors beyond the reasonable control of the Discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper action.
  - b. The monthly average discharge is the total discharge by volume during a calendar month divided by the number of days in the month that the facility was discharging. This number is to be reported in gallons per day or million gallons per day.

Where less than daily sampling is required by this Order, the monthly average shall be determined by the summation of all the measured discharges by the number of days during the month when the measurements were made.
  - c. The monthly average concentration is the arithmetic mean of measurements made during the month.
  - d. The "daily maximum" **discharge** is the total discharge by volume during any day.

## Waste Discharge to Land

- e. The “daily maximum” **concentration** is the highest measurement made on any single discrete sample or composite sample.
- f. A “grab” sample is any sample collected in less than 15 minutes.
- g. Unless otherwise specified, a composite sample is a combination of individual samples collected over the specified sampling period;
  - (1) at equal time intervals, with a maximum interval of one hour
  - (2) at varying time intervals (average interval one hour or less) so that each sample represents an equal portion of the cumulative flow.

The duration of the sampling period shall be specified in the Monitoring and Reporting Program. The method of compositing shall be reported with the results.

#### 7. Annual Pretreatment Report Requirements:

Applies to dischargers required to have a Pretreatment Program as stated in waste discharge requirements.)

The annual report shall be submitted **by 28 February** and include, but not be limited to, the following items:

- a. A summary of analytical results from representative, flow-proportioned, 24-hour composite sampling of the influent and effluent for those pollutants EPA has identified under Section 307(a) of the Clean Water Act which are known or suspected to be discharged by industrial users.

The discharger is not required to sample and analyze for asbestos until EPA promulgates an applicable analytical technique under 40 CFR (Code of Federal Regulations) Part 136. Sludge shall be sampled during the same 24-hour period and analyzed for the same pollutants as the influent and effluent sampling analysis. The sludge analyzed shall be a composite sample of a minimum of 12 discrete samples taken at equal time intervals over the 24-hour period. Wastewater and sludge sampling and analysis shall be performed at least annually. The discharger shall also provide any influent, effluent or sludge monitoring data for nonpriority pollutants which may be causing or contributing to Interference, Pass Through or adversely impacting sludge quality. Sampling and analysis shall be performed in accordance with the techniques prescribed in 40 CFR Part 136 and amendments thereto.

- b. A discussion of Upset, Interference, or Pass Through incidents, if any, at the treatment plant which the discharger knows or suspects were caused by industrial users of the system. The discussion shall include the reasons why the incidents occurred, the corrective actions taken and, if known, the name and address of the industrial user(s) responsible. The discussion shall also include a review of the applicable pollutant limitations to determine whether any

## Waste Discharge to Land

additional limitations, or changes to existing requirements, may be necessary to prevent Pass Through, Interference, or noncompliance with sludge disposal requirements.

- c. The cumulative number of industrial users that the discharger has notified regarding Baseline Monitoring Reports and the cumulative number of industrial user responses.
- d. An updated list of the discharger's industrial users including their names and addresses, or a list of deletions and additions keyed to a previously submitted list. The discharger shall provide a brief explanation for each deletion. The list shall identify the industrial users subject to federal categorical standards by specifying which set(s) of standards are applicable. The list shall indicate which categorical industries, or specific pollutants from each industry, are subject to local limitations that are more stringent than the federal categorical standards. The discharger shall also list the noncategorical industrial users that are subject only to local discharge limitations. The discharger shall characterize the compliance status through the year of record of each industrial user by employing the following descriptions:
  - (1) Complied with baseline monitoring report requirements (where applicable);
  - (2) Consistently achieved compliance;
  - (3) Inconsistently achieved compliance;
  - (4) Significantly violated applicable pretreatment requirements as defined by 40 CFR 403.8(f)(2)(vii);
  - (5) Complied with schedule to achieve compliance (include the date final compliance is required);
  - (6) Did not achieve compliance and not on a compliance schedule;
  - (7) Compliance status unknown.

A report describing the compliance status of any industrial user characterized by the descriptions in items (d)(3) through (d)(7) above shall be **submitted quarterly from the annual report date** to EPA and the Board. The report shall identify the specific compliance status of each such industrial user. This quarterly reporting requirement shall commence upon issuance of this Order.

- e. A summary of the inspection and sampling activities conducted by the discharger during the past year to gather information and data regarding the industrial users. The summary shall include but not be limited to, a tabulation of categories of dischargers that were inspected and sampled; how many and how often; and incidents of noncompliance detected.



## Waste Discharge to Land

- f. A summary of the compliance and enforcement activities during the past year. The summary shall include the names and addresses of the industrial users affected by the following actions:
- (1) Warning letters or notices of violation regarding the industrial user's apparent noncompliance with federal categorical standards or local discharge limitations. For each industrial user, identify whether the apparent violation concerned the federal categorical standards or local discharge limitations;
  - (2) Administrative Orders regarding the industrial user's noncompliance with federal categorical standards or local discharge limitations. For each industrial user, identify whether the violation concerned the federal categorical standards or local discharge limitations;
  - (3) Civil actions regarding the industrial user's noncompliance with federal categorical standards or local discharge limitations. For each industrial user, identify whether the violation concerned the federal categorical standards or local discharge limitations;
  - (4) Criminal actions regarding the industrial user's noncompliance with federal categorical standards or local discharge limitations. For each industrial user, identify whether the violation concerned the federal categorical standards or local discharge limitations.
  - (5) Assessment of monetary penalties. For each industrial user identify the amount of the penalties;
  - (6) Restriction of flow to the treatment plant; or
  - (7) Disconnection from discharge to the treatment plant.
- g. A description of any significant changes in operating the pretreatment program which differ from the discharger's approved Pretreatment Program, including, but not limited to, changes concerning: the program's administrative structure; local industrial discharge limitations; monitoring program or monitoring frequencies; legal authority of enforcement policy; funding mechanisms; resource requirements; and staffing levels.
- h. A summary of the annual pretreatment budget, including the cost of pretreatment program functions and equipment purchases.
- i. A summary of public participation activities to involve and inform the public.
- j. A description of any changes in sludge disposal methods and a discussion of any concerns not described elsewhere in the report.

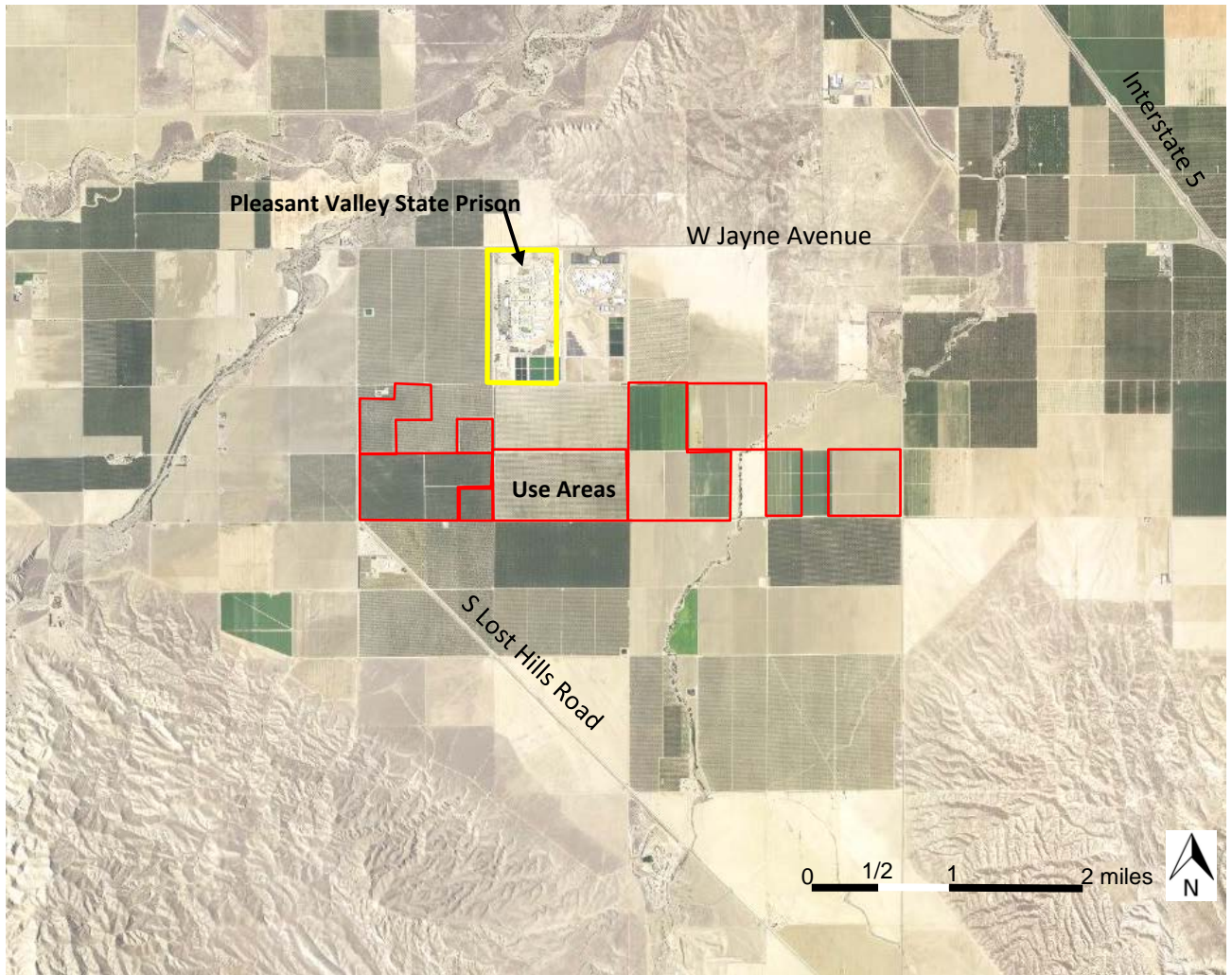
Duplicate signed copies of these reports shall be submitted to the Board and:

Regional Administrator  
U.S. Environmental Protection Agency W-5  
75 Hawthorne Street  
San Francisco, CA 94105

and

State Water Resource Control Board  
Division of Water Quality  
P.O. Box 100  
Sacramento, CA 95812

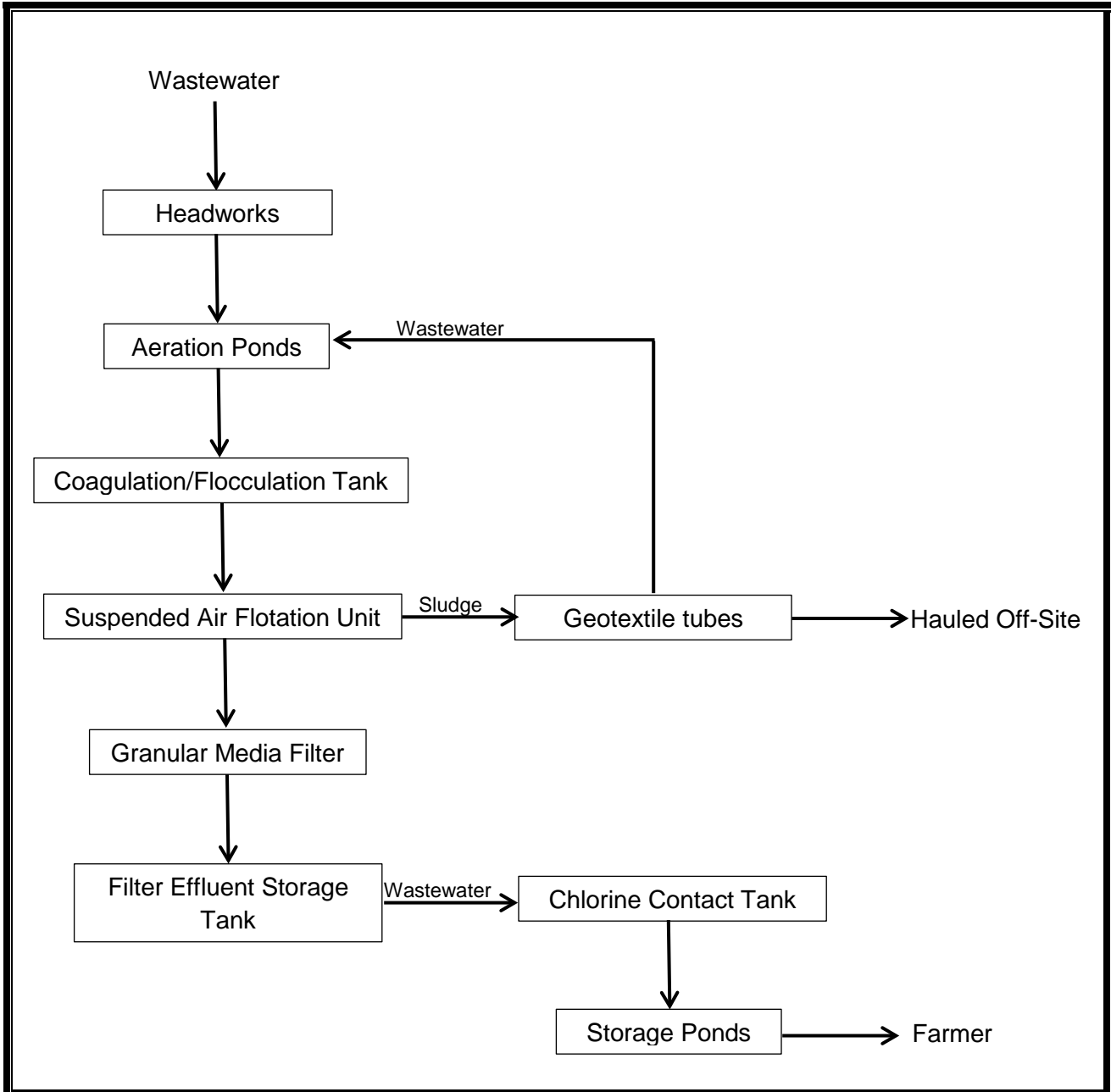
Revised January 2004 to update addresses and phone numbers



**SITE MAP**

WASTE DISCHARGE REQUIREMENTS ORDER R5-2016-0092  
FOR  
CALIFORNIA DEPARTMENT OF CORRECTIONS AND REHABILITATION  
PLEASANT VALLEY STATE PRISON  
WASTEWATER TREATMENT FACILITY  
FRESNO COUNTY

**ATTACHMENT A**



**UPGRADED WWTF CONFIGURATION - PROCESS FLOW SCHEMATIC**

WASTE DISCHARGE REQUIREMENTS ORDER R5-2016-0092  
 FOR  
 CALIFORNIA DEPARTMENT OF CORRECTIONS AND REHABILITATION  
 PLEASANT VALLEY STATE PRISON  
 WASTEWATER TREATMENT FACILITY  
 FRESNO COUNTY