

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
COLORADO RIVER BASIN REGION**

BOARD ORDER R7-2013-0033

WASTE DISCHARGE REQUIREMENTS  
FOR  
CALIFORNIA DEPARTMENT OF CORRECTIONS AND REHABILITATION,  
OWNER/OPERATOR  
CHUCKAWALLA VALLEY STATE PRISON  
WASTEWATER TREATMENT FACILITY  
Wiley's Well – Riverside County

The California Regional Water Quality Control Board, Colorado River Basin Region (Regional Water Board) finds that:

1. California Department of Corrections and Rehabilitation (hereinafter referred to as CDCR or the Discharger), P.O. Box 942883, Sacramento, CA 94283, submitted an application to update Waste Discharge Requirements (WDRs) for the Chuckawalla Valley State Prison (CVSP), Wastewater Treatment Facility (WWTF).
2. The Discharger owns a wastewater collection, treatment and disposal system (hereinafter referred to as the facility) and provides sewerage service to Chuckawalla Valley State Prison and Ironwood State Prison. The WWTF, located at 19025 Wiley's Well Road, Blythe, CA 92225 has a design secondary treatment capacity of 2.70 million gallons-per-day (MGD) and presently discharges approximately 1.36 MGD of disinfected secondary treated wastewater to storage ponds. The treated wastewater is then applied to sprayfields for irrigation. The facility and irrigation fields are located on Sections 16, 17 and 18, T7S, R20E, SBB&M.
3. CDCR produces its domestic water supply from six (6) on-site supply wells (two wells are currently inactive). Groundwater at the site is high in fluoride, arsenic, iron and total dissolved solids. CDCR operates an on-site water treatment plant (WTP). The WTP has three reverse osmosis (RO) units and three activated aluminum units (AAU) to provide water treatment for domestic water supply. The waste streams from the RO and AAU processes were previously discharged to two lined brine storage ponds. The ponds are to be decommissioned to meet the requirements of Time Schedule Order R7-2007-0041. In addition, there is a cooling tower used for temperature control at the site of the WTP. Currently, the waste streams from the RO, AAU and cooling tower processes are combined and piped to the head of the chlorine contact basin where the waste streams are comingled with secondary treated effluent.
4. CVSP WWTF is located about 15 miles west of Blythe on 1,720 acres owned by CDCR as shown on the Location and Vicinity Map (Attachment A), incorporated herein and made part of this Board Order by reference.
5. The discharge is currently regulated under Board Order 93-016, adopted March 31, 1993. CVSP has made significant modifications to the WWTF from 2008 to the present. The Regional Water Board is reissuing the WDRs to incorporate the design changes in the WWTF.

6. On February 20, 2007, the Regional Water Board issued Time Schedule Order (TSO) R7-2007-0041 to CDCR. TSO R7-2007-0041 finds that the Discharger is in chronic violation of Board Order 93-016. The TSO states in part that:
  - a. The RO, AAU and cooling tower discharges were diluting treated domestic wastewater and that CDCR would not meet the effluent limits in Board Order 93-016 if not for dilution.
  - b. The RO reject and AAU wastewater are 'designated wastes' as defined in section 13173 of the California Water Code. The waste streams are being discharged for disposal to waste management units (brine ponds) that do not meet the containment requirements of Title 27.
  - c. From 2003 through 2005, the Discharger's WWTF operated at over 95% of its rated treatment capacity of 1.8 mgd. For 2006, the WWTF operated beyond its actual and rated capacities. The Discharger achieved compliance with the BOD, suspended solids, and settleable matter limitations of Order No. 93-016 by diluting the WWTF effluent with the RO and AAU waste streams.
  - d. The Discharger has been in chronic violation for failure to maintain and operate metering instrumentation that is necessary for obtaining representative measurements of flows into the WWTF. It has also been in chronic violation for failure to correct short-circuiting problems.
7. TSO R7-2007-0041 requires that the CDCR bring all discharges of wastes into compliance with waste discharge requirements, the Basin Plan, and Title 27. TSO R7-2007-0041 requires that:
  - a. CDCR provide the Regional Water Board with a new complete Report of Waste Discharge (ROWD) to update Order 93-016.
  - b. CDCR submit a comprehensive wastewater management plan to adequately treat and dispose of its domestic wastes and to address the proposed changes in treatment and disposal,
  - c. CDCR either manage the discharges of designated waste in accordance with the prescriptive requirements of Title 27, or apply and qualify for an exemption to the Title 27 requirements as specified in Section 20090 of Title 27.
  - d. CDCR submit a time schedule to bring all discharges of wastes into full compliance with Board requirements at the earliest practicable time.
8. TSO R7-2007-0041 is presently an active Enforcement Order and has outstanding tasks to be completed. CDCR is required to complete all requirements of the TSO.
9. Prior to major improvements, CDCR operated equivalent to secondary treatment technology using primary clarifiers and trickling filters. Reject water from a reverse osmosis and activated aluminum unit were combined with untreated domestic wastewater at the headworks, then the combined waste streams were processed through the treatment units and disinfected prior to discharge to the storage ponds. Treated wastewater was used for irrigation on about 124 acres of fields.

### **Wastewater Treatment Facility and Discharge**

10. CVSP and ISP each have its own headworks. The ISP headworks consist of a grinder with a perforated plate screen with an integral auger and washer/compactor. The bypass channel has a mechanically cleaned bar screen with a separate washer/compactor that is only used during high flows or when maintenance is required on the other screen. The screens are to remove debris from the wastewater to protect downstream equipment and prevent debris from getting into the WWTF sludge. Directly downstream of the ISP screens are the ISP influent pumps. These pumps force the influent flow from the ISP headworks through a flowmeter through two parallel force mains to the oxidation ditch influent splitter box. The CVSP headworks are set up similarly to the ISP headworks. CVSP has two mechanical screens, each with its own washer/compactor. This allows the screens to operate as lead/lag depending on flows and maintenance. The CVSP pumps are also directly downstream of the screens and pump the CVSP influent from the CVSP headworks through a flow meter and into the oxidation ditch flow control structure (influent splitter box).
11. The combined flows then go to two carousel oxidation ditches that operate in parallel. The oxidation ditches contain alternating oxic and anoxic zones. The oxidation ditches provided biological nutrient removal as well as nitrification/denitrification to remove nitrogen from the wastewater. Each oxidation ditch has an effluent structure that allows the flow to leave the ditch. From each effluent structure the mixed liquor goes to a secondary splitter box.
12. The secondary splitter box splits the mixed liquor from the oxidation ditch between four secondary clarifiers. The secondary clarifiers provide settling, thickening, and solids removal. Sludge that accumulates on the bottom of the clarifier is either sent to the oxidation ditch as return activated sludge (RAS) or wasted to the digester as waste activated sludge (WAS). The secondary clarifier effluent goes over the weirs and then to the chlorine contact basin.
13. At the head of the chlorine contact basin, RO and AAU wastewater is comingled with secondary treated domestic wastewater. The chlorine contact basin provides disinfection with sodium hypochlorite. Disinfected wastewater is then retained in three reclaimed water unlined storage ponds. Approximately 0.8 MGD is disposed of by percolation and evaporation in the storage ponds. From the storage ponds the final effluent is pumped to the spray fields where it is used to irrigate grass fields. CVSP has increased the disposal area from 124 acres to 217 acres of land for irrigation.
14. The Prison has industrial processes throughout the facility where contaminants of concern may be introduced to the collection system and the WWTF.
15. WAS from the secondary clarifiers is digested in two aerobic digesters prior to being discharged to sludge drying beds. The dried sludge is placed on a concrete lined sludge storage pad with runoff containment.
16. Back-up power is available for all collection system pump stations. All pump stations have both duty and standby pumps. CVSP has installed solar energy fields that are intended to provide power to the WWTF and both CVSP and ISP.

17. The WWTF is designed according to the following effluent specifications:

Design Average Daily Flow	2.70 MGD
Design Peak Daily Flow	3.25 MGD
Biochemical oxygen Demand (BOD)	10 mg/L
Total Suspended Solids (TSS)	10 mg/L
Total Dissolved Solids (TDS)	1,154 mg/L
Ammonia Nitrogen	1 mg/L
Nitrate Nitrogen	5 mg/L
Total Nitrogen	10 mg/L
Sulfate	267 mg/L
Fluoride	8.0 mg/L
Arsenic	0.03 mg/L

18. The Dischargers Self-Monitoring Reports (SMR) from May 2009 through April 2012 characterize the WWTF effluent as follows:

<u>Constituent</u>	<u>Units</u>	<u>Average</u>	<u>Maximum</u>	<u>Minimum</u>
Flow	MGD	1.36	1.52	1.09
BOD	mg/L	18.3	34	8.0
TSS	mg/L	15.4	46	2.0
Settleable Solids	ml/L	<0.1	<0.1	<0.1
pH	pH units	7.22	7.78	6.84
TDS	mg/L	722	1,260	452
Sulfate	mg/L	195	900	74
Fluoride	mg/L	4.88	10	1.50
Nitrate as N	mg/L	7.81	35.8	0.95
Total Nitrogen	mg/L	11.7	22	0.27

### Hydrogeologic Conditions

19. Annual precipitation averages about 3.3 inches. Annual evapotranspiration rate is 74.1 inches.
20. There are no surface waters in the vicinity of the WWTF. Stormwater runoff in the region flows to the northeast to the depression known as Ford Dry Lake.
21. There are six (6) on-site domestic wells located at distances ranging from approximately 3,000 feet to 8,700 feet from the WWTF storage ponds. The wells are screened at depths varying from 180 to 1200 feet. Water in the upper aquifer is not used for domestic supply. Higher quality water encountered from 625 feet below ground surface (bgs) to about 1,100 feet bgs is used for water supply.
22. Domestic water supply TDS to the facility ranges from 779 to 968 mg/L with an average 861 mg/L.

23. Prior to construction of CVSP, a groundwater investigation was performed to establish the availability and usability of groundwater for domestic supply in the area. The results of the investigation are summarized in a report titled *Phase II Groundwater Investigation, Wiley Well Area, September 24, 1986*. The investigation concludes that the groundwater in the upper aquifer to about 625 feet below ground surface (bgs) is of lesser quality than in the deeper aquifer from 625 bgs to about 1,200. Groundwater in the deeper aquifer is higher in fluoride and iron concentrations but lower in chloride and electrical conductivity (EC) correlating with lower TDS. Groundwater in the deeper aquifer is used for domestic supply to CVSP and ISP.
24. A soils investigation performed in May 2010 reports that soils ranged from poorly graded sand to silt. Field saturation percentage ranged from 4.9 to fully saturated. Saturated hydraulic conductivity ranged from  $1.1 \times 10^{-1}$  to  $5.3 \times 10^{-8}$  cm/s. Hydraulic conductivity of soil at field water content ranged from  $1.1 \times 10^{-5}$  to  $1.1 \times 10^{-11}$  cm/s.
25. Regional groundwater flow in the area is to the northeast; however, in the area of the WWTF it is likely that mounding caused by wastewater percolation in the storage ponds and drawdown caused by the domestic supply wells will show a reverse in groundwater gradient.

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

26. The Basin Plan designates beneficial uses and establishes water quality objectives for ground and surface waters in the Region, and contains implementation programs and policies to achieve objectives. In addition, State Water Resources Control Board (State Water Board) Resolution 88-63 requires that, with certain exceptions, the Regional Water Board assign the municipal and domestic supply use to water bodies that do not have beneficial uses listed in the Basin Plan.
27. The proposed discharge is within the Chuckwalla Hydrologic Unit. Beneficial uses for groundwater in the Chuckwalla Hydrologic Unit include:
  - a. Municipal supply (MUN),
  - b. Industrial supply (IND), and
  - c. Agricultural supply (AGR)
28. WDRs implement numeric and narrative water quality objectives for ground and surface waters established by the Basin Plan. The numeric objectives for groundwater designated for municipal and domestic supply are the maximum contaminant levels (MCL), and bacteriological limits specified in Section 64421 et seq. of Title 22, California Code of Regulations (CCR). The narrative objectives are:
  - a. Ground water for use as domestic or municipal water supply (MUN) shall not contain taste or odor-producing substances in concentrations that adversely affect beneficial uses as a result of human activity (Basin Plan, page 3-8).
  - b. Discharges of water softener regeneration brines, other mineralized wastes, and toxic wastes to disposal facilities which ultimately discharge in areas where such wastes can percolate to ground water usable for domestic and municipal purposes are prohibited (Basin Plan, page 3-8).

29. Section 13267 of the California Water Code (CWC) authorizes the Regional Water Boards to require technical and monitoring reports. The Monitoring and Reporting Program (MRP) establishes monitoring and reporting requirements to implement federal and state requirements.
30. This Order establishes WDRs pursuant to Division 7, Chapter 4, Article 4, of the California Water Code (CWC) for discharges that are not subject to regulation under Clean Water Act (CWA) Section 402 (33 U.S.C. Section 1342).
31. Pursuant to California Water Code section 13263(g), the discharge of waste is a privilege, not a right, and adoption of this Order does not create a vested right to continue the discharge.
32. The discharge authorized by this Board Order, and treatment and storage facilities associated with discharges of treated municipal wastewater, except for discharges of residual sludge and solid waste, are exempt from the solid waste requirements of Title 27, CCR, Section 20005 et seq. (hereinafter Title 27). This exemption is based on Section 20090(a) of Title 27, which states in relevant part that discharges of sewage or treated effluent are exempt provided discharges satisfy the following:
  - a. Wastes consist primarily of domestic sewage and treated effluent;
  - b. Wastes are regulated by a Board adopted WDR, or a WDR waiver;
  - c. WDR are consistent with applicable water quality objectives; and
  - d. Treatment and disposal facilities described herein are associated with a municipal wastewater treatment plant.

#### **Groundwater Degradation**

33. State Water Resources Control Board (State Water Board) Resolution 68-16 ("Policy with Respect to Maintaining High Quality Waters of the State"), hereinafter Resolution 68-16 states:

"Whenever the existing quality of water is better than the quality established in policies as of the date on which such policies become effective, such existing high quality will be maintained until it has been demonstrated to the State that any change will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of such water and will not result in water quality less than that prescribed in the policies."

Resolution 68-16 further states:

"Any activity which produces or may produce a waste or increased volume or concentration of waste and which discharges or proposes to discharge to existing high quality waters will be required to meet waste discharge requirements which will result in the best practicable treatment or control of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained."

34. Some degradation of groundwater from the discharge to the storage ponds is consistent with Resolution 68-16, provided that the degradation:
  - a. Is confined to a reasonable area;
  - b. Is minimized by means of full implementation, regular maintenance, and optimal operation of BPTC measures;
  - c. Is limited to waste constituents typically encountered in domestic wastewater; and
  - d. Does not result in the loss of any beneficial use as prescribed in the applicable basin plan, or violation of any water quality objective.
35. The discharge of wastewater from the WWTF, as permitted herein, reflects BPTC. The controls assure the discharge does not create a condition of pollution or nuisance, and that water quality will be maintained which is consistent with the anti-degradation provisions of Resolution No. 68-16. The WWTF incorporates:
  - a. Technology for secondary treated disinfected domestic wastewater;
  - b. Solids handling facilities;
  - c. An operation and maintenance manual;
  - d. Staffing to assure proper operation and maintenance; and
  - e. A standby emergency power generator of sufficient size to operate the treatment plant and ancillary equipment during periods of loss of commercial power.
36. Constituents in domestic WWTF effluent that present the greatest risk to groundwater quality are nitrogen, coliforms (pathogen-indicator organisms), and dissolved salts (TDS). The WWTF provides substantial removal of soluble organic matter, solids, and nitrogen.
37. Secondary treatment reduces fecal coliform densities by 90 to 99%, the remaining organisms in effluent are still  $10^5$  to  $10^6$  MPN/100 ml (United States Environmental Protection Agency, Design Manual, Municipal Wastewater Disinfection; October 1986). CVSP WWTF provides disinfection by chlorination to Title 22, secondary 23 recycled water standards. As such, wastewater in the storage ponds is disinfected. In addition, given the depth to groundwater, it is not likely that pathogen-indicator bacteria will reach groundwater at densities exceeding those prescribed in Title 22, CCR.
38. The typical incremental addition of dissolved salts from domestic water usage is 150 to 380 mg/L. Domestic water supply ranged from 779 to 968 mg/L with an average of about 864 mg/L during the period of May 2009 to April 2012. The TDS increase for this facility for the same time period was about 138 mg/L.
39. A site specific conversion factor of 0.47 between Electrical Conductivity and TDS is estimated in the *Phase II Groundwater Investigation, Wiley Well Area* report. Using this estimate, salinity of groundwater in the upper aquifer ranges from 1,081 mg/L to 4,028 mg/L with an average of 1,688 mg/L. Board Order R7-2013-0033 proposes a TDS limit of 400 mg/L above the water supply. During the period of May 2009 to April 2012, the Dischargers SMR show that effluent from the WWTF had a range of 452 to 1260 mg/L with an average of an average of about 722 mg/L. Wastewater discharged to the storage ponds has a lower TDS than the groundwater at the site of the WWTF. In

addition, the regulatory limit of 400 mg/L above the water supply reasonably protects present and anticipated beneficial uses of groundwater, therefore, is not likely that groundwater will exhibit degradation by TDS.

40. Title 22, CCR § 64431, Maximum Contaminant Level (MCL) for Nitrate plus Nitrite as Nitrogen is 10 mg/L. To account for the fate of transport for the various components of Total Nitrogen, as a conservative value it is assumed that all nitrogen present converts to nitrate/nitrite. The Discharger's SMR from May 2009 to April 2012 show a range of 0.27 to 22 mg/L with an average of 11.69 mg/L for Total Nitrogen. This data set includes treatment by the trickling filters prior to replacement. Since the oxidation ditch with nitrification/denitrification capacity became operational, the WWTF has shown an average total nitrogen concentration of 4.7 mg/L. It is not likely that nitrates will reach groundwater at a rate or in concentrations causing groundwater to exceed those prescribed in Title 22, CCR § 64431.
41. Analyses of groundwater show that the upper aquifer is not consistent with the beneficial uses in the Basin Plan; however, with treatment, groundwater in the deeper aquifer is usable as domestic supply.
42. Groundwater limits equal to water quality objectives for indicator waste constituents are appropriate and protective of water quality objectives. Additionally, the CVSP WWTF provides treatment that is protective of human health and the environment. These factors are consistent with maximum benefit to the people of the State. Accordingly, the discharge as authorized is consistent with the anti-degradation provisions of Resolution 68-16.

### **Stormwater**

43. Federal regulations for storm water discharges were promulgated by the U.S. Environmental Protection Agency on November 16, 1990, (40 CFR Parts 122, 123, and 124) to implement the Clean Water Act's storm water program set forth in Clean Water Act section 402(p) (33 U.S.C. § 1342(p)). In pertinent part, the regulations require specific categories of facilities that discharge storm water associated with industrial activity to "waters of the United States" to obtain NPDES permits and to require control of such pollutant discharges using Best Available Technology Economically Achievable (BAT) and Best Conventional Pollutant Control Technology (BCT) to prevent and reduce pollutants and any more stringent controls necessary to meet water quality standards. Facilities used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated to the disposal of sewage sludge that are within the confines of the facility with a design flow of one million gallons a day or more or required to have an approved pretreatment program are under 40 CFR Part 403. There are no "waters of the United States" in the vicinity of the discharges, therefore, the federal stormwater requirements do not apply.



### **CEQA and Public Participation**

44. In accordance with Section 15301, Chapter 3, Title 14 of the California Code of Regulations, the issuance of these WDRs, which govern the operation of an existing facility involving negligible or no expansion of use beyond that previously existing, is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000 et seq.).
45. The Board has notified the Discharger and all known interested agencies and persons of its intent to draft WDRs for this discharge, and has provided them with an opportunity for a public meeting and an opportunity to submit comments.
46. The Board, in a public meeting, heard and considered all comments pertaining to this discharge.

IT IS HEREBY ORDERED, that Board Order 93-016 is rescinded upon the effective date of this Order except for enforcement purposes, and, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, the Discharger shall comply with the following:

#### **A. Discharge Prohibitions**

1. Discharge of waste classified as "hazardous", as defined in Title 23, CCR, Section 2521(a), or "designated", as defined in California Water Code Section 13173, is prohibited.
2. The treatment or disposal of wastes from the facility shall not cause pollution or nuisance as defined in Sections 13050(l) and 13050(m) of Division 7 of the California Water Code.
3. Discharge of treated wastewater at a location other than the designated disposal areas is prohibited.
4. The WWTF shall be maintained to prohibit sewage or treated effluent from surfacing or overflowing.
5. The discharge of any wastewater from the facility to any surface waters or surface drainage courses is prohibited.
6. The Discharger shall not accept waste in excess of the design treatment capacity of the disposal system.
7. The discharge of waste to land not owned or authorized for such use by the Discharger is prohibited.
8. Surfacing or ponding of wastewater outside of the designated disposal locations is prohibited.
9. Bypass or overflow of untreated or partially treated waste is prohibited.

**B. Effluent Limitations**

1. Effluent discharged to the evaporation ponds for disposal (not used as recycled water) shall not exceed the following effluent limits:

<u>Constituent</u>	<u>Units</u>	<u>Monthly Average</u>	<u>Weekly Average</u>
20° C BOD <sub>5</sub> <sup>1</sup>	mg/L	30	45
Total Suspended Solids	mg/L	30	45
Settleable Matter	ml/L	0.3	0.5

<sup>1</sup> 5-day biochemical oxygen demand at 20 °C.

2. The 30-day monthly average daily discharge from the WWTF shall not exceed 2.7 MGD.
3. Effluent from the WWTF shall not have a pH below 6.0 or above 9.0.
4. Total Dissolved Solids (TDS) shall not be greater than 400 mg/L above domestic water supply.
5. The evaporative/storage basins shall be maintained so they will be kept in aerobic conditions. The dissolved oxygen content in the upper zone (one foot) of evaporative/storage basins shall not be less than 1.0 mg/L.

**C. Discharge Specification**

1. A minimum depth of two (2) feet of freeboard shall be maintained at all times in facultative ponds and evaporative/storage basins.
2. All treatment, storage, and disposal areas shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency.
3. Ponds shall have sufficient capacity to accommodate allowable wastewater flow, design seasonal precipitation, ancillary inflow, and infiltration during the non-irrigation season. 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.
4. Public contact with non-disinfected wastewater shall be precluded through such means as fences, signs, and other acceptable alternatives.
5. Objectionable odors originating at this facility shall not be perceivable beyond the limits of the wastewater treatment and disposal area.
6. The discharger shall not accept waste in excess of the design treatment capacity of the WWTF.

**D. Groundwater Limitations**

1. Discharge from the WWTF shall not cause groundwater to:

- a. Contain waste constituents in concentrations statistically greater than background water quality.
- b. Contain constituents in excess of California Maximum Contaminant Levels (MCLs), as set forth in the California Code of Regulations, Title 22, Section 64426.1 for bacteriological constituents; Section 64431 for inorganic chemicals; Section 64432.1 for nitrates; and Section 64444 for organic chemicals.
- c. Exhibit a pH of less than 6.5 or greater than 8.5 pH units.
- d. Acquire taste, odor, toxicity, or color that creates nuisance or impairs beneficial use.

#### **E. Provisions**

1. The Discharger shall comply with all of the conditions of this Board Order. Noncompliance is a violation of the Porter-Cologne Water Quality Control Act (CWC, § 13000 et seq.), and grounds for enforcement action.
2. The Discharger shall comply with Monitoring and Reporting Program (MRP) R7-2013-0033, and future revisions thereto, as specified by the Regional Water Board Executive Officer.
3. The Discharger shall not cause degradation of any water supply in accordance with State Water Resources Control Board Resolution 68-16.
4. Standby, power generating facilities shall be available to operate the plant during a commercial power failure.
5. Adequate measures shall be taken to assure that flood or surface drainage waters do not erode or otherwise render portions of the discharge facilities inoperable.
6. The WWTF shall be supervised and operated by persons possessing certification of appropriate grade pursuant to Section 3680, Chapter 26, Division 3, Title 23 of the California Code of Regulations.
7. The Discharger shall at all times properly operate and maintain all systems and components of collection, treatment and control, installed or used by the Discharger to achieve compliance with this Board Order. Proper operation and maintenance includes effective performance, adequate process controls, and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities/systems when necessary to achieve compliance with this Board Order. All systems in service or reserved shall be inspected and maintained on a regular basis. Records of inspections and maintenance shall be retained, and made available to the Regional Water Board Executive Officer on request.
8. The Discharger shall ensure that all site-operating personnel are familiar with the content of this Board Order, and shall maintain a copy of this Board Order at the site.
9. The Discharger shall allow the Regional Water Board, or an authorized representative, upon presentation of credentials and other documents as may be required by law, to:
  - a. Enter the premises regulated by this Board Order, or the place where records are kept under the conditions of this Board Order;

- b. Have access to and copy, at reasonable times, records kept under the conditions of this Board Order;
  - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Board Order; and
  - d. Sample or monitor at reasonable times, for the purpose of assuring compliance with this Board Order or as otherwise authorized by the California Water Code, any substances or parameters at this location.
10. Ponds shall be managed to prevent breeding of mosquitoes. In particular,
  - a. An erosion control program should assure that small coves and irregularities are not created around the perimeter of the water surface.
  - b. Weeds shall be minimized through control of water depth, harvesting, or herbicides.
  - c. Dead algae, vegetation, and debris shall not accumulate on the water surface.
11. Disposal of oil and grease, biosolids, screenings, and other solids collected from liquid wastes shall be pursuant to Title 27, and the review and approval of the Regional Water Board Executive Officer.
12. Any proposed change in use or disposal of biosolids requires the approval of the Regional Water Board Executive Officer, and U.S. Environmental Protection Agency Regional Administrator, who must be notified at least 90 days in advance of the change.
13. Sludge use and disposal shall comply with Federal and State laws and regulations, including permitting requirements, and technical standards in 40 CFR Part 503. If the State and Regional Water Boards are delegated the authority to implement 40 CFR Part 503 regulations, this Order may be revised to incorporate appropriate time schedules and technical standards. The Discharger shall comply with the standards and time schedules in 40 CFR part 503, whether or not part of this Order.
14. The Discharger shall provide a plan as to the method, treatment, handling and disposal of sludge that is consistent with all State and Federal laws and regulations and obtain prior written approval from the Regional Water Board specifying location and method of disposal, before disposing of treated or untreated sludge, or similar solid waste.
15. The Discharger shall maintain a permanent log of all solids hauled away from the treatment facility for use/disposal elsewhere and shall provide a summary of the volume, type (screenings, grit, raw sludge, digested sludge), use (agricultural, composting, etc.), and the destination in accordance with the MRP of this Board Order. Sludge that is stockpiled at the treatment facility shall be sampled and analyzed for those constituents listed in the sludge monitoring section of the MRP of this Board Order and as required by Title 40, Code of Federal Regulations, Part 503. The results of the analyses shall be submitted to the Regional Board as part of the MRP.
16. The Discharger shall provide a report to the Regional Water Board when it determines that the plant's average dry-weather flow rate for any month exceeds 80 percent of the design capacity. The report should indicate what steps, if any, the discharger intends to take to provide for the expected wastewater treatment capacity necessary when the plant reaches design capacity.

17. Prior to implementing a modification that results in a material change in the quality or quantity of wastewater treated or discharged, or a material change in the location of discharge, the Discharger shall report all pertinent information in writing to the Regional Water Board, and obtain revised requirements.
18. Prior to a change in ownership or management of WWTF, the Discharger shall transmit a copy of this Board Order to the succeeding owner/operator, and forward a copy of the transmittal letter to the Regional Water Board.
19. The Discharger shall provide adequate notice to the Regional Water Board Executive Officer of the following:
  - a. The introduction of pollutants into any treatment facility described in the Findings of this Board Order from an indirect Discharger which would be subject to Section 301 or 306 of the Clean Water Act, if the pollutants were discharged directly;
  - b. Any substantial change in the volume or character of pollutants introduced into any treatment facility described in the Findings of this Board Order, by an existing or new source; and
  - c. Any planned physical alteration or addition to the facilities described in this Board Order, or change planned in the Discharger's sludge use or disposal practice, where such alterations, additions, or changes may justify the application of Board Order conditions that are different from or absent in the existing Board Order, including notification of additional disposal sites not reported during the Board Order application process, or not reported pursuant to an approved land application plan.
20. The Discharger shall report orally, any noncompliance that may endanger human health or the environment. The noncompliance shall be reported immediately to the Regional Water Board Executive Officer, and the Office of Emergency Services as soon as:
  - a. The Discharger has knowledge of the discharge,
  - b. Notification is possible, and
  - c. Notification will not substantially impede cleanup or other emergency measures.

During non-business hours, the Discharger shall leave a message on the Regional Water Board office voice recorder at (760) 346-7491. A written report shall also be provided within five (5) business days of the time the discharger becomes aware of the incident. The written report shall contain a description of the noncompliance and its cause, the period of noncompliance, the anticipated time to achieve full compliance, and the steps taken or planned, to reduce, eliminate, and prevent recurrence of the noncompliance. The discharger shall report all intentional or unintentional spills in excess of one thousand (1,000) gallons occurring within the facility or collection system to the Regional Board office in accordance with the above time limits.

21. The Discharger shall report all instances of noncompliance. Reports of noncompliance shall be submitted with the Discharger's next scheduled SMR or earlier if requested by the Regional Water Board Executive Officer, or if required by an applicable standard for sludge use and disposal.

22. By-pass (i.e., the intentional diversion of waste streams from any portion of the treatment facilities, except diversions designed to meet variable effluent limits) is prohibited. The Regional Water Board may take enforcement action against the Discharger for by-pass unless:
- a. 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 be inoperable, or substantial and permanent loss of natural resources reasonably expected to occur in the absence of a by-pass. Severe property damage does not mean economic loss caused by delays in production; and  
  
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 was not installed to prevent by-pass occurring during equipment downtime, or preventive maintenance.
  - b. By-pass is:
    - i. Required for essential maintenance to assure efficient operation; and
    - ii. Neither effluent nor receiving water limitations are exceeded; and
    - iii. The Discharger notifies the Regional Water Board ten (10) days in advance.
23. In the event of an unanticipated by-pass, the Discharger shall immediately report the incident to the Regional Water Board. During non-business hours, the Discharger shall leave a message on the Regional Water Board office voice recorder. A written report shall be provided within five (5) business days the Discharger is aware of the incident. The written report shall include a description of the by-pass, any noncompliance, the cause, period of noncompliance, anticipated time to achieve full compliance, and steps taken or planned, to reduce, eliminate, and prevent recurrence of the noncompliance.

### **Stormwater**

24. All storm water discharges from this facility must comply with the lawful requirements of municipalities, counties, drainage districts, and other local agencies, regarding discharges of storm water to storm water drain systems or other courses under their jurisdiction.
25. Storm water discharges from the facility shall not cause or threaten to cause pollution or contamination.
26. Storm water discharges from the facility shall not contain hazardous substances equal to or in excess of a reportable quantity listed in 40 CFR Part 117 and/or 40 CFR Part 302.

### **F. Pretreatment**

27. In the event that the facility has an average dry weather flow or treatment capacity of 5 mgd or more and Industrial Users [40 CFR 403.3(h)] are discharging pollutants which Pass Through [40 CFR 403.3(n)] or Interfere [40 CFR 403.3(i)] with the operation of the wastewater treatment facility or are otherwise subject to National Pretreatment Standards [40 CFR 403.3(j)], (ii) California Code of Regulations, Title 23, Section 2233 requires the facility to have and enforce an adequate pretreatment program, or (iii) the


Regional Board or its Executive Officer determines that other circumstances warrant, then:

- a. The discharger shall notify the Regional Water Board within 30 days after there are discharges that trigger the pretreatment requirements.
- b. The Discharger shall submit a revised Report of Waste Discharge and the pretreatment program for the Regional Board review and approval as soon as possible but not later than one (1) year of the notice of pretreatment requirements.
- c. The Discharger shall enforce the federal categorical pretreatment standards on all Categorical Industrial Users (CIUs).
- d. The discharger shall notify the CIU of its discharge effluent limits. The limits must be as stringent as the pretreatment standards contained in the applicable federal category (40 CFR Part 400-699). The discharger may develop more stringent, technically based local limits if it can show cause.
- e. The discharger shall notify the Regional Board if the CIU violates its discharge effluent limits.

#### **Limitations**

28. This Board Order does not authorize violation of any federal, state, or local laws or regulations.
29. This Board Order does not convey property rights of any sort, or exclusive privileges, nor does it authorize injury to private property or invasion of personal rights, or infringement of federal, state, or local laws or regulations.
30. This Board Order may be modified, rescinded, or reissued, for cause. The filing of a request by the Discharger for a Board Order modification, rescission or reissuance, or notification of planned changes or anticipated noncompliance, does not stay any Board Order condition. Causes for modification include a change in land application plans, or sludge use or disposal practices, and adoption of new regulations by the State or Regional Water Board (including revisions to the Basin Plan), or Federal government.

I, Robert Perdue, 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, Colorado River Basin Region, on May 16, 2013.

Ordered By:   
ROBERT PERDUE  
Executive Officer

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
COLORADO RIVER BASIN REGION**

MONITORING AND REPORTING PROGRAM R7-2013-0033  
FOR  
CALIFORNIA DEPARTMENT OF CORRECTIONS AND REHABILITATION,  
OWNER/OPERATOR  
CHUCKAWALLA VALLEY STATE PRISON  
WASTEWATER TREATMENT FACILITY  
Wiley's Well – Riverside County

Location of Wastewater Treatment Facilities and Discharges:  
Sections 16, 17 and 18, T7S, R20E, SBB&M

**A. Monitoring**

1. This Monitoring and Reporting Program (MRP) describes requirements for monitoring a wastewater system and groundwater quality (when needed). This MRP is issued pursuant to California Water Code (Wat. Code) § 13267. The Discharger shall not implement any changes to this MRP unless and until a revised MRP is issued by the Executive Officer.
2. Water Code section 13267 states, in part:

“In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of 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.”
3. Water Code section 13268 states, in part:

“(a) (1) Any person failing or refusing to furnish technical or monitoring program reports as required by subdivision (b) of § 13267, or failing or refusing to furnish a statement of compliance as required by subdivision (b) of Section 13399.2, or falsifying any information provided therein, is guilty of a misdemeanor, and may be liable civilly in accordance with subdivision (b). (b) (1) Civil liability may be administratively imposed by a regional board in accordance with Article 2.5 (commencing with § 13323) of Chapter 5 for a violation of subdivision (a) in an amount which shall not exceed one thousand dollars (\$1,000) for each day in which the violation occurs.”
4. The Discharger owns and operates the wastewater system that is subject to Board Order R7-2013-0033. The reports are necessary to ensure that the Discharger complies with the



Order. Pursuant to Water Code section 13267, the Discharger shall implement the MRP and shall submit the monitoring reports described herein.

5. All samples shall be representative of the volume and nature of the discharge or matrix of material sampled. The time, date, and location of each grab sample shall be recorded on the sample chain of custody form. If composite samples are collected, the basis for sampling (time or flow weighted) shall be approved by Regional Water Board staff.
6. Field test instruments (such as those used to test pH, dissolved oxygen, and electrical conductivity) may be used provided that:
  - a. The user is trained in proper use and maintenance of the instruments;
  - b. The instruments are field calibrated prior to monitoring events at the frequency recommended by the manufacturer;
  - c. Instruments are serviced and/or calibrated by the manufacturer at the recommended frequency; and
  - d. Field calibration reports are submitted as described in the "Reporting" section of this MRP.
7. The collection, preservation and holding times of all samples shall be in accordance with United States Environmental Protection Agency (USEPA) approved procedures. Unless otherwise approved by the Regional Water Board's Executive Officer, all analyses shall be conducted by a laboratory certified by the State Department of Health Services. All analyses shall be conducted in accordance with the latest edition of the "Guidelines Establishing Test Procedures for Analysis of Pollutants" (40 CFR Part 136), promulgated by the USEPA.
8. All monitoring instruments and devices used by the discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy. In the event that continuous monitoring equipment is out of service for period greater than 24-hours, the Discharger shall obtain representative grab samples each day the equipment is out of service. The Discharger shall correct the cause(s) of failure of the continuous monitoring equipment as soon as practicable. The Discharger shall report the period(s) during which the equipment was out of service and if the problem has not been corrected, shall identify the steps which the Discharger is taking or proposes to take to bring the equipment back into service and the schedule for these actions.
9. Samples shall be collected at the location specified in the WDRs. If no location is specified, sampling shall be conducted at the most representative sampling point available.
10. Given the monitoring frequency prescribed by MRP R7-2013-0033, if only one sample is available for a given reporting period, compliance with monthly average, or weekly average Discharge Specifications, will be determined from that sample.
11. The Discharger shall comply with the following:
  - a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

- b. The Discharger shall retain records of all monitoring information, copies of all reports required by this Board Order, and records of all data used to complete the application for this Board Order, for a period of at least 5 years from the date of the sample, measurement, report or application.
  - c. Records of monitoring information shall include:
    - i. The date, exact place, and time of sampling or measurements.
    - ii. The individual(s) who performed the sampling or measurements.
    - iii. The date(s) analyses were performed.
    - iv. The individual(s) who performed the analyses.
    - v. The analytical techniques or methods used; and
    - vi. The results of such analyses.
12. If the facility is not in operation, or there is no discharge during a required reporting period, the Discharger shall forward a letter to the Regional Water Board indicating that there has been no activity during the required reporting period.

**Influent Monitoring**

13. Influent to the WWTF shall be monitored according to the following schedule:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
20°C BOD <sub>5</sub> <sup>1</sup>	mg/L <sup>2</sup>	24-Hr. Composite	Semi-Weekly <sup>3</sup>	Monthly
TSS <sup>4</sup>	mg/L	24-Hr. Composite	Semi-Weekly	Monthly

**WWTF Effluent Monitoring**

14. Effluent from the WWTF shall be monitored according to the following schedule:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
Flow	MGD <sup>5</sup>	Flow Measurement	Daily <sup>6</sup>	Monthly
Total Coliforms	MPN/100 mL <sup>7</sup>	Grab	Weekly	Monthly
Chlorine Residual	mg/L	Grab	Weekly	Monthly

<sup>1</sup> Biochemical Oxygen Demand

<sup>2</sup> Milligrams per Liter

<sup>3</sup> Once every two weeks

<sup>4</sup> Total Suspended Solids

<sup>5</sup> Million Gallons per Day

<sup>6</sup> Reported for each day with average monthly flow calculated

<sup>7</sup> Most Probable Number per 100 milliliters

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
20°C BOD <sub>5</sub>	mg/L	24-Hr. Composite	Semi-Weekly	Monthly
TSS	mg/L	24-Hr. Composite	Semi-Weekly	Monthly
Settleable Solids	ml/L <sup>8</sup>	Grab	Daily	Monthly
pH	pH units	Grab	Daily	Monthly
TDS	mg/L	Grab	Weekly	Monthly
Sulfate	mg/L	Grab	Monthly	Monthly
Fluoride	mg/L	Grab	Monthly	Monthly
Nitrate as N	mg/L	Grab	Monthly	Monthly
Total Nitrogen	mg/L	Grab	Monthly	Monthly
Arsenic	µg/L <sup>9</sup>	Grab	Monthly	Monthly
VOCs <sup>10</sup>	µg/L	Grab	Annually	Annually

### Water Supply to the Community

15. The domestic water supply shall be monitored according to the following schedule:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
TDS	mg/L	Grab	Weekly	Monthly

### Groundwater Monitoring

16. The Discharger shall monitor groundwater wells MW-1, 2, and according to the following schedule:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
Depth to Groundwater (bgs) <sup>11</sup>	ft	measurement	Quarterly	Quarterly
Total Dissolved Solids	mg/L	Grab	Quarterly	Quarterly
Arsenic	µg/L	Grab	Quarterly	Quarterly
Fluoride	mg/L	Grab	Quarterly	Quarterly
pH	pH Units	Grab	Quarterly	Quarterly

<sup>8</sup> Milliliters per Liter

<sup>9</sup> Micrograms per Liter

<sup>10</sup> Analyses of Volatile Organic Compounds shall be test methods EPA 601 and 602 or EPA method 624

<sup>11</sup> Below ground surface

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
Nitrate as N	mg/L	Grab	Quarterly	Quarterly
Nitrite as N	mg/L	Grab	Quarterly	Quarterly
Total Nitrogen	mg/L	Grab	Quarterly	Quarterly
General Minerals <sup>12</sup>	mg/L	Grab	Annually	Annually
Metals <sup>13</sup>	µg/L	Grab	Annually	Annually
VOCs	µg/L	Grab	Annually	Annually

### Sludge Monitoring

17. The Discharger shall report annually on the quantity, location and method of disposal of all sludge and similar solid materials being produced at the WWTF. If no sludge is disposed of during the year being reported, the Discharger shall state "No Sludge Removed" in the annual monitoring report. Sludge that is generated at the WWTF shall be sampled and analyzed for the following:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
Arsenic	mg/kg <sup>14</sup>	Composite	Annually	Annually
Cadmium	mg/kg	Composite	Annually	Annually
Chromium	mg/kg	Composite	Annually	Annually
Copper	mg/kg	Composite	Annually	Annually
Lead	mg/kg	Composite	Annually	Annually
Mercury	mg/kg	Composite	Annually	Annually
Molybdenum	mg/kg	Composite	Annually	Annually
Nickel	mg/kg	Composite	Annually	Annually
Selenium	mg/kg	Composite	Annually	Annually
Zinc	mg/kg	Composite	Annually	Annually
Fecal Coliform	MPN/gram <sup>15</sup>	Composite	Annually	Annually

<sup>12</sup> General Minerals Analysis to include: Sodium, Calcium, Magnesium, Potassium, Alkalinity, Carbonate, Bicarbonate, Chloride, Sulfate, Total Phosphorus, Iron, Manganese, Boron, Anions and Cations

<sup>13</sup> Metals Analysis to include: Aluminum, Barium, Copper, Cadmium, Chromium, Lead, Mercury, Molybdenum, Nickel, Selenium, Silver, and Zinc

<sup>14</sup> Milligrams per kilogram

<sup>15</sup> Most Probable Number per gram

## B. Reporting

### Operation and Maintenance

1. The Discharger shall inspect and document any operation/maintenance problems by inspecting each unit process. In addition, calibration of flow meters and equipment shall be performed in a timely manner and documented. Operation and Maintenance reports shall be submitted to the Regional Water Board Office annually.
2. The Discharger shall arrange the data in tabular form so that the specified information is readily discernible. The data shall be summarized in such a manner as to clearly illustrate whether the facility is operating in compliance with WDR. Where appropriate, the Discharger shall include supporting calculations (e.g., for monthly averages).
3. The results of any analysis taken, more frequently than required at the locations specified in this MRP shall be reported to the Regional Water Board.
4. SMR shall be certified under penalty of perjury to be true and correct, and shall contain the required information at the frequency designated in this MRP.
5. Each Report shall contain the following statement:

"I declare under the penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment for knowing violations".
6. The SMR, and other information requested by the Regional Water Board, shall be signed by a principal executive officer or ranking elected official.
7. A duly authorized representative of the Discharger may sign the documents if:
  - a. The authorization is made in writing by the person described above;
  - b. The authorization specified an individual or person having responsibility for the overall operation of the regulated disposal system; and
  - c. The written authorization is submitted to the Regional Water Board's Executive Officer.
8. The Discharger shall report any failure in the facility (wastewater treatment plant, and collection and disposal systems). The incident shall be reported immediately to the Regional Water Board Executive Officer as soon as:
  - a. The Discharger has knowledge of the discharge,
  - b. Notification is possible, and
  - c. Notification will not substantially impede cleanup or other emergency measures.Results of analyses performed shall be provided within 15 days of sample collection.

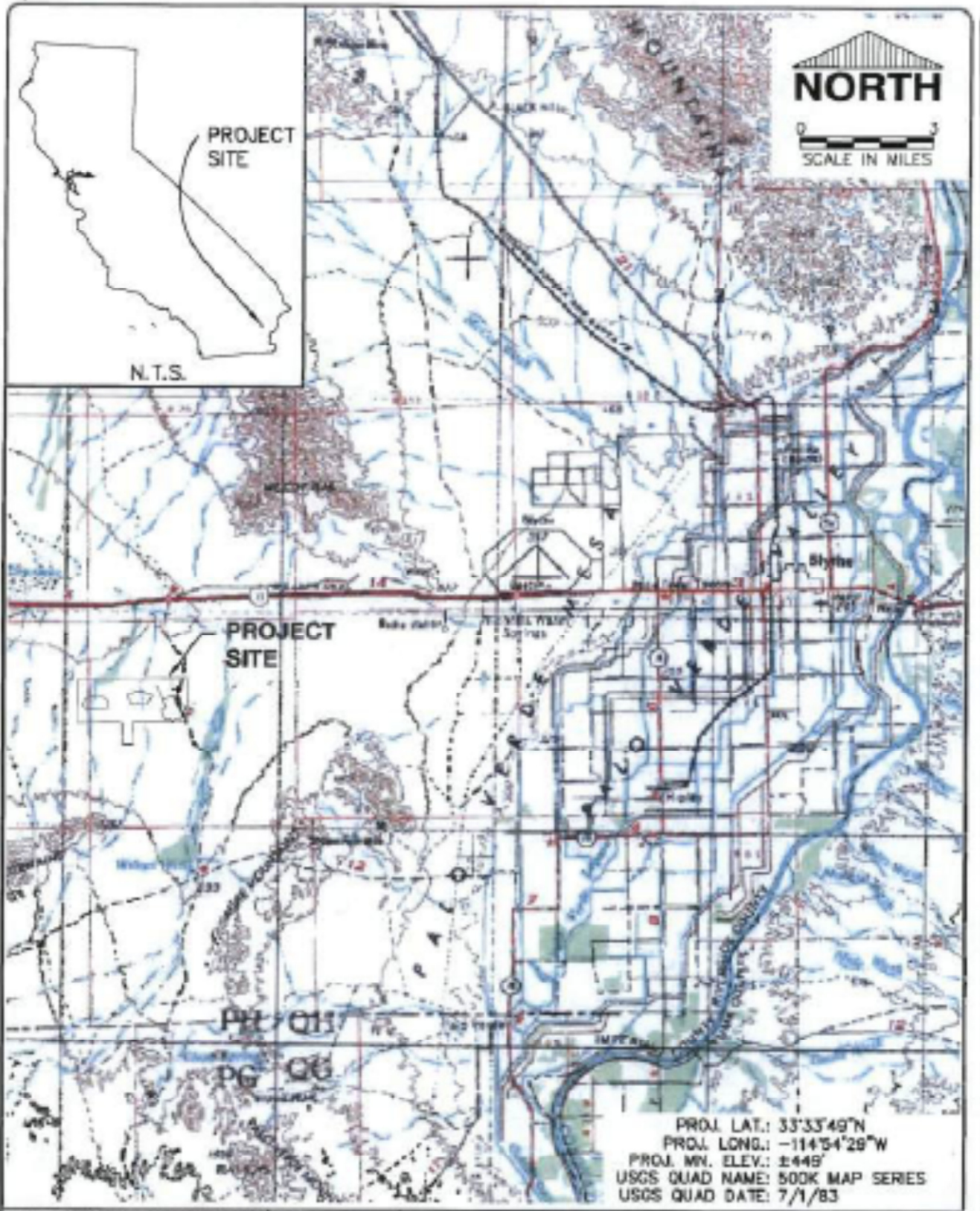
9. The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify violations of the WDR, discuss corrective actions taken or planned and the proposed time schedule of corrective actions. Identified violations should include a description of the requirement that was violated and a description of the violation.
10. Daily, weekly, and monthly monitoring shall be included in the monthly monitoring report. Monthly monitoring reports shall be submitted to the Regional Water Board by the 15<sup>th</sup> day of the following month. Quarterly monitoring reports shall be submitted by January 15<sup>th</sup>, April 15<sup>th</sup>, July 15<sup>th</sup> and October 15<sup>th</sup>. Annual monitoring reports shall be submitted to the Regional Water Board by January 15<sup>th</sup> of the following year.
11. The Discharger shall submit monitoring reports to:

California Regional Water Quality Control Board  
Colorado River Basin Region  
73-720 Fred Waring, Suite 100  
Palm Desert, CA 92260

Ordered By: Robert L Perdue  
ROBERT PERDUE  
Executive Officer

5/16/13  
Date

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
COLORADO RIVER BASIN REGION



Attachment A – Vicinity Map

