

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

BOARD ORDER R7-2015-0043

WASTE DISCHARGE REQUIREMENTS
FOR
HI-DESERT WATER DISTRICT, OWNER/OPERATOR
YUCCA VALLEY WASTEWATER RECLAMATION PLANT
Yucca Valley – San Bernardino County

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

1. Hi-Desert Water District (HDWD or Discharger), located at 55-439 Twentynine Palms Highway, Yucca Valley, California 92284, submitted an application and a Report of Waste Discharge (ROWD) for Waste Discharge Requirements (WDRs) for the proposed Yucca Valley Wastewater Reclamation Plant (WRP or Facility). The Discharger proposes to provide sewerage service to portions of the Town of Yucca Valley (Town) and will construct the WRP, a discharge spreading area for groundwater recharge, and the first phase of three phases of a wastewater collection system.
2. The Discharger is in the process of beginning the construction of the wastewater collection system and the WRP. The wastewater collection system is proposed to be constructed in three phases, as described in the septic tank prohibition set forth in the Water Quality Control Plan for the Colorado River Basin Water Board (Basin Plan) Amendment, effective on April 9, 2012. The septic tank discharge prohibition prohibits the discharge of wastewater from new or existing individual disposal systems on parcels within Phase 1, Phase 2, and Phase 3 of the HDWD Sewer Master Plan (Final Report, January 2009), with certain exceptions as specified in the prohibition. The septic tank discharge prohibition becomes effective for all parcels within Phase 1 by May 19, 2016, or when a municipal sewage collection system becomes available, whichever occurs first. The prohibition specifies that a sewage collection system becomes available once the system is operational, and is located within 500 lineal feet of an existing or proposed new disposal system discharge. In a similar manner the prohibition specifies the effective date for Phases 2 and 3 as May 19, 2019, and May 19, 2022, respectively. Because of financing issues, the need to get voter approval of a sewer assessment district (see Finding 4 below), and the need to realign the internal boundaries of the phases to account for technical and economic changes, the commencement of construction of the collection system and WRP was delayed. As a result, the estimated completion date of Phase 1 of the collection system and the WRP is December 2018. Consequently, the Colorado River Basin Water Board staff will be proposing a new Basin Plan Amendment to delay the effective date of the three phases, and to incorporate the internal boundary changes for the three phases.
3. HDWD provides water service to approximately 25,000 residents and businesses in the Town and nearby unincorporated portions of San Bernardino County. In February 2010 the HDWD completed the Local Agency Formation Commission (LAFCO) process to get sewerage authority within its District boundaries. The authority was approved on February 17, 2010.
4. In May 2015 the Town voted on and approved an assessment district to fund the

construction of the wastewater collection system and the WRP. Approval of the assessment district enabled HDWD to secure a low interest loan from the State Water Resources Control Board's State Revolving Fund (SRF).

5. The WRP is identified in the California Integrated Water Quality System (CIWQS) by waste discharge identification (WDID) No. 7A360122001. The WRP is to be located on Assessor's Parcel Number (APN) 060120107, Yucca Valley, California 92284, as shown in Attachment A (Vicinity Map), incorporate herein and made part of this Board Order by this reference. The WRP site consists of two rectangular 40-acre parcels running north-south, which are adjacent to and south of Twentynine Palms Highway, east of Indio Avenue, and north of Sunnyslope Drive. The WRP site is located within the Town boundaries within an industrial/commercial use subdivision on the West ½ of the Northeast ¼ of Section 32, Township 1 North, Range 6 East, San Bernardino Baseline and Meridian.

Wastewater Reclamation Plant and Discharge

6. The proposed WRP will consist of an influent pump station, headworks, a membrane bioreactor (MBR), an ultraviolet (UV) disinfection unit, solids handling, solids storage and dewatering facilities, recharge basins for effluent disposal, and an odor control system. The headworks system will consist of mechanical bar screens, vortex grit removal, influent fine screenings and grit washers. Primary and secondary treatment units will consist of an MBR, nitrification, de-nitrification and include anoxic, aerobic and swing zones. Further treatment will be provided by membrane filtration basins, and UV disinfection banks. Sodium hypochlorite will be used for process control and may be used in the final effluent. The disposal facilities will be four spreading, surface impoundments (also known as recharge basins) for groundwater recharge. Back-up power will be available for all treatment units. The process flow is shown in Attachment B (Process Flow Diagram), incorporate herein and made part of this Board Order by this reference.
7. Untreated wastewater will flow from the influent pump station to the headworks for preliminary treatment. Wastewater from the headworks will then flow to the MBR system for secondary treatment. Secondary treated wastewater will then flow to the membrane filtration basins for further treatment and then to the UV system for disinfection. HDWD proposes to construct the WRP with an initial design capacity of 1.0 million gallons per day (MGD), equipping (membranes, blowers, pumps, etc.) for 1.0 MGD (Phase 1 of the Basin Plan prohibition). However, the hard infrastructure, such as concrete basins, will be constructed to meet the final Phase 3 design capacity of 1.6 MGD.
8. Waste Activated Sludge (WAS) and foam from the MBR system will be discharged to sludge storage tanks. The tanks will be aerated by a system of blowers to keep the solids mixed and prevent them from turning anaerobic. Solids from the storage tanks will be pumped to screw presses or belt filter presses for dewatering. Dewatered solids will be conveyed to a truck for hauling and disposal offsite. Dewatering liquor and other plant discharges will be collected in a process drain pump station and pumped to the head of the plant upstream of the screens.
9. Chemical storage and dosing facilities will be provided for sodium hypochlorite, citric acid, dewatering polymer and other chemicals that may be required by the MBR membrane manufacturer.

10. The Discharger's ROWD summarizes the WRP anticipated treatment performance as follows:

Influent		
<u>Constituent</u>	<u>Units</u>	<u>Average Concentration</u>
20° C BOD ₅ ¹	mg/L ²	300
TSS ³	mg/L	300
Ammonia-Nitrogen	mg/L	38
TKN ⁴	mg/L	65

Effluent		
<u>Constituent</u>	<u>Units</u>	<u>Average Concentration</u>
20° C BOD ₅	mg/L	10
TSS	mg/L	10
pH	s.u. ⁵	6.5 – 8.5
Total Nitrogen	mg/L	10 max
Total Coliform	MPN/100 mL	
7-day median		2.2
Single Sample Max		23

Hydrogeologic Conditions

11. Annual precipitation in the Town averages less than eight inches. Annual evapotranspiration rate in the vicinity is approximately 67 inches.
12. Based on the findings of a single boring drilled for investigation in 2012, the Discharger reports that soils in the vicinity of the WRP, from ground surface to 50 feet beneath ground surface (bgs), consists primarily of granular sandy soils with alternating layers of sand and silty sand. This investigation did not find any groundwater to a depth of 50 feet bgs.
13. Based on the findings of an on-site infiltration test, the infiltration rate at the proposed WRP recharge basin location ranges from 6 ft/day to less than 1 ft/day.
14. There are no surface waters in the vicinity of the proposed WRP. Covington Wash, an ephemeral wash, flows from the southwest corner to the northeast corner of the

¹ 5-day biochemical oxygen demand at 20 degrees Celsius.
² Milligrams per Liter
³ Total Suspended Solids
⁴ Total Kjeldahl Nitrogen
⁵ Standard pH units

proposed site. A significant portion of the proposed site for the WRP is within the 100-year floodplain of the Covington Wash. Calculations from a FEMA Flood map show that approximately 20.2 acres or about 25% of the 80-acre parcel is in the 100-year floodplain.

15. Water supply to the community is from groundwater production wells located in the Warren Subbasin, which is part of the Morongo Groundwater Basin. TDS in the water supply averages about 240 mg/L, based on values reported in HDWD's Water Quality Reports from 2010 through 2013⁶. The Discharger operates thirteen supply wells and imports water from the California State Water Project (SWP) for groundwater recharge through surface spreading.
16. Groundwater flow in the area of the WRP is generally from the west to the east. There are no domestic wells within 1,000 feet of the proposed WRP. Depth to groundwater in the Warren Subbasin ranges from 150 feet up to 1600 feet bgs. Geophysical studies suggest, however, that basin deposits may exceed 2000 feet in depth.
17. The site is located in a seismically active desert region.

Basin Plan, Beneficial Uses, and other Regulatory Considerations

18. Water Code section 13243 authorizes the Colorado River Basin Water Board to specify certain conditions or areas where discharges of specific types of waste will not be permitted.
19. On May 19, 2011, the Colorado River Basin Water Board adopted Resolution R7-2011-0004 and Basin Plan Amendment (Amendment) prohibiting the discharge of domestic wastewater from individual onsite septic systems in specified areas of the Town of Yucca Valley with implementation scheduled in three phases, as discussed in more detail in Finding 2, above.
20. The Basin Plan, adopted November 17, 1993 and amended November 16, 2012, designates the beneficial uses of ground and surface waters in the Colorado River Basin Water Board Region, and contains implementation programs and policies to achieve objectives.
21. The discharge is within the Joshua Tree Hydrologic Unit, Warren Hydrologic Area. The beneficial uses of groundwater in the Hydrologic Unit include:
 - a. Municipal supply (MUN), and
 - b. Industrial supply (IND),
22. 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 (MCLs) and bacteriological limits specified in section 64421 et seq. of Title 22, of the 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

⁶ A copy of the reports can be downloaded from: <http://www.hdwd.com/water-quality>

- 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).
23. Section 13267 of the California Water Code (CWC) authorizes the Colorado River Basin Water Board to require technical and monitoring reports. The Monitoring and Reporting Program (MRP) establishes monitoring and reporting requirements to implement federal and state requirements. The reports are necessary to ensure that the Discharger complies with the Order.
 24. This Order establishes WDRs pursuant to Division 7, Chapter 4, Article 4, of the CWC for discharges that are not subject to regulation under Clean Water Act (CWA) section 402 (33 U.S.C. section 1342).
 25. Pursuant to CWC 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.
 26. 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 requirements of the Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste, as set forth in Title 27, CCR, Division 2, Subdivision 1. This exemption is based on section 20090(a) of Title 27, which states in relevant part that discharges of domestic sewage or treated effluent are exempt provided that such discharges are regulated by WDRs, or for which WDRs have been waived, and which are consistent with applicable water quality objectives, and treatment or storage facilities associated with municipal WRP's, provided that residual sludges or solid waste from WRP's shall be discharged only in accordance with the applicable Title 27 provisions.
 27. In May 2014, the California Department of Public Health adopted regulations for the use of treated domestic wastewater in Groundwater Replenishment Reuse Projects (GRRP) for its Office of Drinking Water (now State Water Resources Control Board, Division of Drinking Water (DDW)). The regulations are contained in California Code of Regulations (CCR), Title 22, sections 60301, 60320 and 60323; and became effective June 18, 2014. Following consultation with DDW staff, this Board Order incorporates those sections that apply to a GRRP for Indirect Potable Reuse, Groundwater Replenishment, and Surface Application.

Groundwater Degradation

28. State Water Board Resolution 68-16, "Policy with Respect to Maintaining High Quality Waters of the State" (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 [BPTC] 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.”

29. It is expected that some degradation of groundwater from the discharge to the recharge basins will occur, but it will be 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.
30. The discharge of wastewater from the WRP, 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 68-16. The WRP incorporates:
 - a. Technology for secondary treatment, membrane filtration and UV disinfection;
 - 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.
31. Constituents in domestic wastewater effluent that present the greatest risk to groundwater quality are nitrogen, coliforms (pathogen-indicator organisms), and TDS. The WRP provides substantial removal of soluble organic matter, solids, and some nitrogen treatment.
32. Title 22, CCR section 64431, Maximum Contaminant Level (MCL) for Nitrate plus Nitrite as Nitrogen is 10 mg/L. To account for the fate and transport of the various components of Total Nitrogen, it is conservatively assumed that all nitrogen present converts to nitrate/nitrite. HDWD's ROWD reports an anticipated average of less than 10 mg/L for Total Nitrogen as a 12 month average.
33. The Discharger's ROWD reports that the expected concentration for total coliforms in the effluent from the WRP is expected to be less than 2.2 MPN/100mL on a 7-day average and no single sample is expected to be greater than 23 MPN/100mL.
34. The California Code of Regulations (CCR), Title 22, Secondary Maximum Contaminant Levels (MCLs) for domestic supply specifies for TDS in drinking water a “recommended”

consumer acceptance contaminant level of 500 mg/L and “upper” consumer acceptance contaminant level of 1,000 mg/L if it is neither reasonable nor feasible to provide more suitable waters (CCR, Title 22, section 64449, Table 64449-B).

35. The TDS of the domestic water supply for Yucca Valley is approximately 240 mg/L. The typical increase of dissolved salts from domestic water usage is 150 to 380 mg/L. However, the HDWD has historically required its water customer to install water conservation features (e.g., efficient plumbing features) as a condition for getting water from HDWD. Regional Board staff believes that this requirement causes a higher increase of TDS than what is typically expected in domestic water because there is less water available for dilution. However, to confirm these beliefs, it is necessary to document the actual increase so that an appropriate effluent limitation for TDS can be established in order to keep the increase to a minimum and to manage controllable sources of salinity.
36. The need to document potential increases in dissolved salts from domestic water usage is also necessary since the actual TDS of groundwater in the vicinity of the WRP is unknown. Thus, further investigation must be performed to assess the actual water quality conditions and to establish a site-specific TDS groundwater objective. This information will be a factor in determining the assimilative capacity of the Warren Subbasin. In the interim, and consistent with the state’s Anti-degradation Policy, Resolution 68-16, this Order establishes groundwater limits equal to the Title 22 MCLs to ensure water quality is protected.
37. By constructing the Facility, HDWD will be providing a valuable service to the community that is protective of human health and the environment and will contribute to the economic development in the area. These factors, when taken in conjunction with the associated increase in waste constituents, 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, and the applicable water quality objectives.
38. The Discharger is subject to the requirements of Title 22, Division 4, section 60301.050 et. seq., for the development and operation of a Groundwater Replenishment and Reuse Project (GRRP), including groundwater monitoring provisions. In addition, groundwater monitoring is necessary to ensure compliance with the requirements of this Board Order. The groundwater monitoring network, as further described in the Monitoring and Reporting Program, attached hereto and made a part of this Board Order by this reference, shall consist of, at a minimum, one upgradient and two downgradient monitoring wells. Additional downgradient wells maybe necessary to determine at the earliest time practicable impacts on the first encountered groundwater and to satisfy GRRP regulations.

Stormwater

39. 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. Because there are no "waters of the United States" in the vicinity of the discharges, however, the federal stormwater requirements do not apply. Nevertheless, this Order recommends that the Discharger implement, where practicable, construction stormwater best management practices to ensure nuisance conditions are prevented.

CEQA and Public Participation

40. In accordance with the California Environmental Quality Act (CEQA) (California Public Resources Code Section 21000 et seq.) and implementing Guidelines (California Code of Regulations, Title 14, Section 15000 et seq.), HDWD, acting as the Lead Agency, prepared a Mitigated Negative Declaration (MND) for the project (SCH2009061035). The draft MND was circulated for a mandatory 30-day public commenting period. Based on the MND, HDWD determined that although the proposed project could have a significant effect on the environment, it would avoid the effects or mitigate the effects to a point where no significant effect on the environment would occur. On October 7, 2009, HDWD approved the MND and on October 13, 2009, filed a Notice of Determination (NOD) with the Clerk of the Board, County of San Bernardino and the Office of Planning and Research, State Clearinghouse. On March 20, 2013, HDWD submitted a Notice of Completion of Addendum No. 1 to the adopted MND. Addendum No. 1 added changes to the MND to include installation of the individual property sewer laterals from the nearest sewer line/main to the existing septic tanks on individual properties and the installation of additional or alternative sewer lines to ensure the whole of the Phase 1 project area was adequately served with the wastewater collection system. There were no changes made to the size of the WRP. In November 2013, HDWD completed Addendum No. 2 to the adopted MND. Addendum No. 2 changed the treatment technology of the WRP from an oxidation ditch to a MBR. In addition, Addendum No. 2 revised the treatment capacity size of the WRP from 2.0 MGD to 1.0 MGD at completion of Phase 1; and from 6.0 MGD to 2.9 MGD at final build-out. The Colorado River Basin Water Board has considered the findings of the MND and subsequent Addendums. The Colorado River Basin Water Board concludes that compliance with these WDRs will prevent any significant adverse impacts to water quality.
41. The Colorado River Basin Water 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.
42. The Colorado River Basin Water Board, in a public meeting, heard and considered all comments pertaining to this discharge.

IT IS HEREBY ORDERED, 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. Effluent Limitations

1. Effluent discharged to the recharge basins for disposal shall not exceed the following effluent limits:

Constituent	Units	30-Day Arithmetic Mean	7-Day Arithmetic Mean	Daily Maximum
20° C BOD ₅	mg/L	10	15	30
Total Suspended Solids	mg/L	10	15	30
Total Nitrogen	mg/L	10	---	---
Nitrite as Nitrogen	mg/L	1	---	---
Oil and Grease	mg/L	15	---	---

2. At a minimum, the recycled municipal wastewater applied at a GRRP shall receive treatment that meets the following:

- a. The filtered wastewater has been disinfected by either:
 - i. A chlorine disinfection process following filtration that provides a Contact Time (CT) (the product of total chlorine residual and modal contact time measured at the same point) value of not less than 450 milligram-minutes per liter at all times with a modal contact time of at least 90 minutes, based on peak dry weather design flow; or
 - ii. A disinfection process that, when combined with the filtration process, has been demonstrated to inactivate and/or remove 99.999 percent of the plaque-forming units of F-specific bacteriophage MS2, or polio virus in the wastewater. A virus that is at least as resistant to disinfection as polio virus may be used for purposes of the demonstration. The median concentration of total coliform bacteria measured in the disinfected effluent shall not exceed an MPN of 2.2 per 100 milliliters utilizing the bacteriological results of the last seven days for which analyses have been completed, and the number of total coliform bacteria shall not exceed an MPN of 23 per 100 milliliters in more than one sample in any 30 day period. No sample shall exceed an MPN of 240 total coliform bacteria per 100 milliliters.
- b. Wastewater that has been coagulated and passed through natural undisturbed soils or a bed of filter media pursuant to the following:
 - i. At a rate that does not exceed 5 gallons per minute per square foot of surface area in mono, dual or mixed media gravity, upflow or pressure filtration systems, or does not exceed 2 gallons per minute per square foot of surface area in traveling bridge automatic backwash filters; and
 - ii. Turbidity of the filtered wastewater does not exceed any of the following:
 - (1) An average of 2 NTU within a 24-hour period;

- (2) 5 NTU more than 5 percent of the time within a 24-hour period; and
 - (3) 10 NTU at any time.
 - c. Wastewater that has been passed through a microfiltration, ultrafiltration, nanofiltration, or reverse osmosis membrane so that the turbidity of the filtered wastewater does not exceed any of the following:
 - i. 0.2 NTU more than 5 percent of the time within a 24-hour period; and
 - ii. 0.5 NTU at any time.
 - d. Wastewater that has not been coagulated:
 - i. filter effluent turbidity does not exceed 2 NTU;
 - ii. the turbidity of the influent to the filters is continuously measured;
 - iii. the influent turbidity does not exceed 5 NTU for more than 15 minutes and never exceeds 10 NTU; and
 - iv. that there is the capability to automatically activate chemical addition or divert the wastewater should the filter influent turbidity exceed 5 NTU for more than 15 minutes
3. Effluent from the WRP shall not have a pH below 6.0 or above 9.0.
4. The recharge basin shall be maintained so it will be kept in aerobic conditions. The dissolved oxygen content in the upper zone (one foot) of the recharge basins shall not be less than 1.0 mg/L. If there is little or no water in the percolation ponds, the monitoring report shall state "No standing water in ponds and/or not sufficient water in the ponds to sample safely" in place of reporting dissolved oxygen concentration.

B. 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. Discharge of treated wastewater at a location other than the designated disposal areas is prohibited.
3. The WRP shall be maintained to prevent sewage or treated effluent from surfacing or overflowing.
4. The discharge of any wastewater from the Facility to any surface waters or surface drainage courses is prohibited.
5. Discharge of waste to land not owned or authorized for such use by the Discharger is prohibited.
6. Ponding of wastewater outside of the designated disposal locations is prohibited.
7. Bypass, overflow, discharge, or spill of untreated or partially treated waste is prohibited.

C. Discharge Specifications

1. The Discharger shall comply with all applicable sections of CCR, Title 22, Division 4, Chapter 3, commencing with section 60301, for GRRPs with recharge basins, and revisions thereto.
2. The construction operation as well as the treatment or disposal of wastes from the WRP shall not cause pollution or nuisance as defined in sections 13050(l) and 13050(m) of Division 7 of the California Water Code, respectively.
3. The 30-day average daily dry weather discharge from the WRP into the recharge basins shall not exceed 1.0 MGD at the completion of Phase 1.
4. A minimum of two feet of freeboard shall be maintained at all times in each recharge basins.
5. 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.
6. Recharge basins shall have sufficient capacity to accommodate allowable wastewater flow, design seasonal precipitation, ancillary inflow, and infiltration. 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.
7. Public contact with non-disinfected wastewater shall be precluded through such means as fences, signs, and other acceptable alternatives.
8. Objectionable odors originating at this Facility shall not be perceivable beyond the limits of the wastewater treatment and disposal area.
9. The recharge basins shall be maintained and operated so as to maximize infiltration and minimize the increase of salinity in the groundwater.
10. There shall be no surface flow of wastewater away from the designated recharge areas.
11. The Discharger shall not accept wastewater in excess of the treatment capacity of the Facility.
12. Basins 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.

D. UV Disinfection Process Requirements

1. The Discharger shall operate the ultraviolet (UV) disinfection system in accordance with the following operating protocol and technical and administrative requirements in order to ensure compliance with disinfection effluent limitations specified in Effluent Limitations A.1 of this Order.
 - a. Disinfection of tertiary treated wastewater shall be accomplished using a disinfection

process that, when combined with the filtration process, has been demonstrated to inactivate and/or remove 99.999 percent of the plaque forming units of F-specific bacteriophage MS2, or polio virus in the wastewater. At a minimum, the Discharger shall demonstrate a 99.99 percent removal and/or inactivation of MS2 through the UV disinfection system only.

- b. Flow through the UV disinfection system shall not exceed the maximum approved by the DDW.
- c. The Discharger shall operate the UV disinfection system to provide a minimum UV dose of 80 millijoules per square centimeter (mJ/cm^2) at all times, unless otherwise approved by the DDW.
- d. The Discharger shall provide continuous, reliable monitoring of flow, UV transmittance, UV dose, turbidity and any other parameter required to comply with GRRP regulations. Monitoring for these parameters shall take place at representative locations, which shall be established by the Discharger and approved by the DDW.
- e. The Discharger shall demonstrate compliance with the UV dose requirement. Equations shall also be developed in consultation and with concurrence of the DDW for use as part of the automatic UV disinfection control system for calculating UV dose.
- f. To verify performance on the site-specific recycled water, upon completion of construction and prior to operation, an on-site check-point bioassay must be performed on the reactor using seeded MS2 coliphage as described in the *2012 NWRI UV Guidelines*. The on-site bioassay protocol shall be approved by DDW and must be conducted over a range of flows. Results, documenting virus disinfection performance of the system to the standards found in Title 22 of the CCR, shall be submitted to DDW for approval.
- g. The UV transmittance (at least 254 nanometers) in the wastewater shall not fall below 55 percent of maximum at any time, unless otherwise approved by Colorado River Basin Water Board's Executive Officer. Prior to approving any percentage change, the Executive Officer shall consult with the DDW.
- h. The quartz sleeves shall be wiped/cleaned on a frequency as approved by DDW.
- i. The UV disinfection system shall be operated in accordance with an operations and maintenance plan approved by the DDW. The plan shall clearly specify the operational limits and responses required for critical alarms. A copy of the approved operations plan should be maintained at the WRP and be readily available to operations personnel and regulatory agencies. A quick reference plant operations data sheet should be posted at the treatment plant and include the following information:
 - i. The alarm set points for secondary and tertiary turbidity, high flow, UV dose and UV transmittance, UV lamp operation hours, and power.
 - ii. The values of secondary and tertiary turbidity, high flow, low UV dose and low transmittance, when flow must be diverted to waste.
 - iii. The values of high daily and weekly median total coliform, when an operational response must be taken.
 - iv. The required frequency of calibration for all meters measuring turbidity, flow, UV

transmittance, and power.

- v. The required frequency of mechanical cleaning/wiping and equipment inspection.
 - vi. The UV lamp age tracking procedures and replacement intervals.
 - j. Lamps shall be replaced at a minimum on a frequency approved by the DDW.
 - k. Flow meters and UV transmittance (UVT) monitors must be properly calibrated to ensure proper disinfection.
 - l. The UVT meter must be inspected and checked against a reference bench-top unit weekly to document accuracy.
 - m. If the on-line analyzer UVT reading varies from the bench-top spectrophotometer UVT reading by 2 percent or more, the on-line UVT analyzer must be recalibrated by a procedure recommended by the manufacturer.
 - n. The UV disinfection system must be operated with a built-in automatic reliability feature that must be triggered when the system is below the target UV dose. If the measured UV dose goes below the minimum UV dose, the UV reactor in question must alarm and startup the next available UV bank or reactor.
 - o. Equivalent or substitutions of equipment shall not occur without an adequate demonstration of equivalent disinfection performance to the satisfaction and approval of the DDW.
2. The Discharger shall report daily average and lowest daily transmittance and operational UV dose on its monthly monitoring reports. The Discharger shall report daily average and maximum flow through the UV disinfection system. If the UV transmittance falls below 55 percent or UV dose falls below 80 mJ/cm², the event shall be reported to the Colorado River Basin Water Board and the DDW by telephone with 24 hours. Any inadequately treated and disinfected wastewater shall be diverted to a storage basin or an upstream process for adequate treatment.

E. Groundwater Limitations

- 1. Discharge from the WRP 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. Acquire taste, odor, toxicity, or color that creates nuisance or impairs beneficial use.

F. Provisions

Special Provisions

- 1. The Discharger shall notify the Colorado River Basin Water Board, in writing:
 - a. Within 15 days of the issuance of a contract for construction of the WRP,
 - b. Within 15 days of the start of construction of the WRP, and

- c. Within 180 days prior to receiving domestic wastewater at WRP and prior to start up activities.
2. The Discharger shall provide to the Colorado River Basin Water Board and the DDW all documentation, reports, studies, analyses, etc., for the development and operation of a Groundwater Replenishment and Reuse Project GRRP subject to the requirements of Title 22, section 60320, et. Seq. Copies of all documentation shall be submitted to the Colorado River Basin Water Board.
3. **One year** prior to initial start-up of the WRP, the Discharger shall submit to the DDW for its approval the Engineering Report required by Title 22, section 60323 for the use of treated domestic wastewater for a GRRP. A copy of the Engineering Report shall be submitted to the Colorado River Basin Water Board.
4. When construction of Phase 1 of the WRP is complete, the Discharger will submit final design engineering documents and as-built drawings certified by the registered engineer in charge of the project.
5. The Discharger shall prepare and submit for approval a technical report that includes a work plan and time schedule to perform a TDS study that evaluates the incremental increase in TDS above the average TDS of the source water for the Town (i.e., characterizes the TDS for the influent of the WRP). The average TDS of the Town's source water shall be based on the most recent 5-year TDS data for the supply wells for the Town, on a flow-weighted basis, for each supply well. The study shall address the practicability of establishing a 300 mg/L incremental increase in TDS above the TDS of the source water and the impact that such discharge could have on the beneficial uses of the receiving groundwater. The report shall be submitted to the Colorado River Basin Water Board's Executive Officer for approval by September 15, 2016. The following items describe the purpose and minimum requirements for the work plan and time schedule:
 - a. Evaluation by the Discharger must include information on the following factors relating to the discharge:
 - i. Characterization of the TDS of the influent into the WRP (in terms of concentration, mass, and major ions);
 - ii. Characterization of the contribution from domestic and commercial sources to the TDS of the influent;
 - iii. Description of significant salt sources into the sewage collection system, and identification of entities responsible for each source, if available;
 - iv. Description of the wastewater discharge, receiving waters, quantity, overall salt load, and salinity;
 - v. Alternative plans for minimizing salt contribution from the sources identified in Item a.iii, above. Alternative plans shall include: (1) Description of the sewage collection system's salt sources and proposed measures to control them; and (2) Cost of alternative plans, in dollars per ton, to remove salt from the influent wastewater; and
 - vi. Such other information pertinent to the study as the Discharger may deem necessary, including but not limited to, the need to strike a balance between water

- conservation and protection and enhancement of water quality for current and future generations.
- b. In preparing alternative plans to minimize the contribution from the sources identified in Item a.ii, above, the Discharger shall consult with the Town and consider the following criteria, including but not limited to:
 - i. The practicability of achieving a 300 mg/L or lower incremental TDS increase;
 - ii. The TDS assimilative capacity of the Warren Subbasin and compliance with Resolution 68-16,
 - iii. Where a 300 mg/L incremental increase is not determined to be practicable, the Discharger shall provide the following: 1) The impact of the proposed salt input of each alternative on the beneficial uses of the groundwater in terms of tons per year and concentration; 2) Costs per ton of salt removed from the discharge of each alternative plan; 3) Capability of minimizing the salt discharge; 4) A proposed value for the practical incremental increase; and 5) A justification for the proposed practical incremental increased value.
6. **Two years** prior to initial start-up of the WRP, the Discharger shall submit a technical report in the form of workplan with milestones, time schedule for implementation, and technical rationale for the installation of a groundwater monitoring well network in the vicinity of the proposed recharge basins and to satisfy Title 22 requirements for its proposed GRRP. The purpose of the groundwater monitoring wells in the area of the recharge basins shall be to determine the water quality conditions of groundwater in the vicinity of the proposed recharge basins prior to discharge and to monitor the effects of discharge on first encountered groundwater after discharge has been initiated. The groundwater monitoring wells for the recharge basins shall be installed at least **one year** prior to initial WRP start-up to allow for baseline sampling. The groundwater monitoring network shall include, at a minimum, one upgradient and two downgradient monitoring wells and its construction shall be coordinated with the DDW to ensure compliance with the Title 22 groundwater monitoring requirements.
 7. The Discharger shall submit a report with a proposed groundwater monitoring network to determine the TDS of the water supply for the Town. The proposed network shall consist of water supply wells that provide a statistically representative value for the TDS of the water supply for the Town. The report shall be submitted for approval by the Colorado River Basin Water Board's Executive Officer and shall be due **by October 15, 2017**.

Standard Provisions

8. 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, section 13000 et seq.), and is grounds for enforcement action.
9. The Discharger shall comply with Monitoring and Reporting Program (MRP) R7-2015-0043, and future revisions thereto, incorporated herein and made part of this Order by reference, as specified by the Colorado River Basin Water Board's Executive Officer.
10. 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 California registered professionals (i.e., civil engineer, engineering geologist, geologist, etc.) competent and proficient in the fields pertinent to the required activities. All technical reports specified herein that contain work plans, 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 professionals, even if not explicitly stated. Each technical report submitted by the Discharger shall contain a statement of qualifications of the responsible licensed professionals as well as the professional's signature and/or stamp of the seal. Additionally, to the extent that preparation of a required technical report involves field activities, field activities shall be conducted under the direct supervision of one or more of these professionals.

11. All technical reports required in conjunction with this Order are required pursuant to Section 13267 of the CWC, and shall include a statement by the Discharger, or an authorized representative of the Discharger, certifying under penalty of perjury under the laws of the State of California, that the report is true, complete, and accurate.
13. The Discharger shall furnish, under penalty of perjury, self-monitoring program reports, and such reports shall be submitted in accordance with the specifications prepared by the Colorado River Basin Water Board Executive Officer and in Monitoring and Reporting Program R7-2015-0043. Such specifications are subject to periodic revisions as may be warranted.
14. The Discharger shall submit all documents electronically, including those required to assure compliance with this Order and those that are normally sent via mail, such as regulatory reports, documents, submissions, materials, data, and correspondence. All documents must be emailed on or prior to the regulatory due date. To accomplish electronic submittal of documents the Discharger shall convert the signed original document to Portable Document Format (PDF) or other appropriate Microsoft application, such as Excel, and emailed to:

RB7-wdrs_paperless@waterboards.ca.gov

Documents that are 50 MB or larger should be split and saved in files smaller than 50 MB with appropriately named and identified as part one of three for example. Documents which are not suitable for email should be transferred to a disk and mailed to the Colorado River Basin Water board office in Palm Desert.
15. The Discharger shall not cause degradation of any water supply in accordance with State Water Board Resolution 68-16.
16. Standby power generating facilities shall be available to operate the plant during a commercial power failure.
17. 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.
18. The WRP 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.
19. 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 Colorado River Basin Water Board's Executive Officer on request.

20. 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.
21. The Discharger shall allow the Colorado River Basin 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.
22. 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 Colorado River Basin Water Board Executive Officer.
23. Any proposed change in use or disposal of biosolids requires the approval of the Colorado River Basin 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.
24. 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 Colorado River Basin 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.
25. 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 Colorado River Basin Water Board specifying location and method of disposal, before disposing of treated or untreated sludge, or similar solid waste.
26. 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 Colorado River Basin Water Board as part of the MRP.

27. The Discharger shall provide a report to the Colorado River Basin 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.
28. 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 Colorado River Basin Water Board, and obtain revised requirements.
29. Prior to a change in ownership or management of WRP, 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 Colorado River Basin Water Board.
30. The Discharger shall provide adequate notice to the Colorado River Basin 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.
31. The Discharger shall report orally, any noncompliance that may endanger human health or the environment. The noncompliance shall be reported immediately to the Colorado River Basin Water Board's Executive Officer at (760) 346-7491, and the California Office of Emergency Services at (800) 852-7550 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 Colorado River Basin Water Board's office voice recorder at the above listed number. Incident information shall be provided orally as soon as possible and within 24 hours from the time the Discharger becomes aware of the incident. 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 WRP or collection system to the Colorado River Basin Water Board office in accordance with the above time limits.

32. The Discharger shall report all instances of noncompliance. Reports of noncompliance shall be submitted with the Discharger's next scheduled SMRs or earlier if requested by the Colorado River Basin Water Board's Executive Officer, or if required by an applicable standard for sludge use and disposal.
33. 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 Colorado River Basin 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 Colorado River Basin Water Board ten (10) days in advance.
34. In the event of an unanticipated by-pass, the Discharger shall immediately report the incident to the Colorado River Basin Water Board. During non-business hours, the Discharger shall leave a message on the Colorado River Basin Water Board office voice recorder. A written report shall be provided within five 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.
35. 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.
36. Storm water discharges from the Facility shall not cause or threaten to cause pollution or contamination.
 37. 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.
 38. The Discharger is the responsible party for the waste discharge requirements and the monitoring and reporting program for the Facility. The Discharger shall comply with all conditions of these waste discharge requirements. Violations may result in enforcement actions, including Colorado River Basin Water Board Orders or court orders, requiring corrective action or imposing civil monetary liability, or in modification or revocation of these waste discharge requirements by the Colorado River Basin Water Board.
 39. This Board Order does not authorize violation of any federal, state, or local laws or regulations.
 40. 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.
 41. 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 Colorado River Basin 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 September 17, 2015.



ROBERT PERDUE
Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

MONITORING AND REPORTING PROGRAM R7-2015-0043
FOR
HI-DESERT WATER DISTRICT, OWNER/OPERATOR
YUCCA VALLEY WASTEWATER RECLAMATION PLANT
Yucca Valley - Riverside County

Location of Discharge:
W½ of the NE¼ of Section 32, T1N, R6E, 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 (CWC) section 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 Colorado River Basin Water 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 Colorado River Basin Water 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 Colorado River Basin Water 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 section 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 Colorado River Basin Water Board in accordance with Article 2.5 (commencing with section 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 R7-2015-0043. 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 Colorado River Basin 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 U. S. Environmental Protection Agency (USEPA) approved procedures. Unless otherwise approved by the Colorado River Basin Water Board's Executive Officer, all analyses shall be conducted by a laboratory certified by the California Department of Public Health. 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. The Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, 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 five (5) years from the date of the sample, measurement, report or application. This period may be extended by request of the Colorado River Basin Water Board's Executive Officer at any time. Records of monitoring information shall include:
 - a. The date, exact place, and time of sampling or measurement(s);
 - b. The individual(s) who performed the sampling or measurement(s);
 - c. The date(s) analyses were performed;
 - d. The individual(s) who performed the analyses;

- e. The analytical techniques or method used; and
 - f. The results of such analyses.
10. 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.
11. Given the monitoring frequency prescribed by MRP R7-2015-0043, 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.
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 Colorado River Basin Water Board indicating that there has been no activity during the required reporting period.

Influent Monitoring

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

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Monitoring Frequency</u>	<u>Reporting Frequency</u>
Flow	MGD ¹	Measurement	Daily	Monthly
20°C BOD ₅ ²	mg/L ³	24-Hr. Composite	weekly	Monthly
Total Suspended Solids	mg/L	24-Hr. Composite	weekly	Monthly

WRP Effluent Monitoring

14. Effluent from the WRP to the recharge basins shall be monitored according to the following schedule:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Monitoring Frequency</u>	<u>Reporting Frequency</u>
Flow	MGD ⁴	Measurement	Daily	Monthly
pH	s.u. ⁵	Grab	Daily	Monthly
Turbidity	NTU ⁶	Recorder	Continuous	Monthly
Fecal Coliform	MPN/100mL	Grab	Daily	Monthly
Total Coliform	MPN/100mL	Grab	Daily	Monthly

¹ Million Gallons per Day

² 5-day Biochemical Oxygen Demand at 20 degrees Celsius.

³ milligrams per Liter

⁴ Million Gallons per Day

⁵ standard pH units.

⁶ Nephelometric Turbidity Unit

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Monitoring Frequency</u>	<u>Reporting Frequency</u>
Enterocococcus	MPN/100mL	Grab	Daily	Monthly
20°C BOD ₅	mg/L	24-hr Composite	2/Week	Monthly
Total Suspended Solids	mg/L	24-hr Composite	2/Week	Monthly
Oil and Grease	mg/L	Grab	2/Week	Monthly
Dissolved Oxygen ⁷	mg/L	Grab	Daily	Monthly
Total Dissolved Solids	mg/L	Grab	Weekly	Monthly
Ammonia as N	mg/L	Grab	Weekly	Monthly
Nitrate as N	mg/L	Grab	Weekly	Monthly
Nitrite as N	mg/L	Grab	Weekly	Monthly
Total Nitrogen	mg/L	Grab	Weekly	Monthly
UV Transmittance	%	Recorder	Continuous	Monthly
UV Dose	mW-s/cm ²	Calculated	Continuous	Monthly
MBAS and CTAS	mg/L	24-hr Composite	Annually	Annually
Total Hardness	mg/L	24-hr Composite	Annually	Annually
Priority Pollutants ⁸	µg/L ⁹	24-hr Composite	Annually	Annually

Domestic Water Supply

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

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Monitoring Frequency</u>	<u>Reporting Frequency</u>
Total Dissolved Solids	mg/L	Grab	Monthly	Monthly

Groundwater Monitoring

16. Groundwater monitoring constituents and schedule may be revised based on a request from the DDW, by the Colorado River Water Board's Executive Officer for cause, including request by the Discharger. The approved groundwater monitoring network shall be monitored for the following constituents and according to the following schedule:

⁷ Dissolved Oxygen shall be monitored at the upper one foot layer of the recharge basins.

⁸ USEPA list of Priority Pollutants are found in Appendix A to 40 CFR Part 423

⁹ micrograms per liter

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Monitoring Frequency¹</u>	<u>Reporting Frequency</u>
Depth to Groundwater	ft	measurement	Quarterly	Quarterly
pH	s.u.	Grab	Quarterly	Quarterly
Fecal Coliform	MPN/100mL	Grab	Quarterly	Quarterly
Total Coliform	MPN/100mL	Grab	Quarterly	Quarterly
Enterococccous	MPN/100mL	Grab	Quarterly	Quarterly
Total Dissolved Solids	mg/L	Grab	Quarterly	Quarterly
Ammonia as N	mg/L	Grab	Quarterly	Quarterly
Nitrate as N	mg/L	Grab	Quarterly	Quarterly
Nitrite as N	mg/L	Grab	Quarterly	Quarterly
Total Nitrogen	mg/L	Grab	Quarterly	Quarterly
MBAS and CTAS	mg/L	Grab	Annually	Annually
Total Hardness	mg/L	Grab	Annually	Annually
Priority Pollutants	µg/L	Grab	Annually	Annually

¹ The monitoring frequency for the first year shall be monthly. Thereafter, the monitoring frequency shall be as prescribed above.

Sludge Monitoring

17. Prior to disposal, sludge that is generated at the WRP shall be sampled and analyzed for the following:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Monitoring Frequency</u>	<u>Reporting Frequency</u>
Arsenic	mg/kg ¹⁰	Composite	Annually	Annually
Cadmium	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

¹⁰ milligrams per kilogram.

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Monitoring Frequency</u>	<u>Reporting Frequency</u>
Nickel	mg/kg	Composite	Annually	Annually
Selenium	mg/kg	Composite	Annually	Annually
Zinc	mg/kg	Composite	Annually	Annually
Fecal Coliform	MPN/gram ¹¹	Composite	Annually	Annually

B. Reporting

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 Colorado River Basin Water Board Office annually.
2. The Discharger shall report annually on the quantity, location and method of disposal of all sludge and similar solid materials being produced at the WRP. If no sludge is disposed of during the year being reported, the Discharger shall state "No Sludge Removed" in the annual monitoring report.
3. The Discharger shall provide the Colorado River Basin Water Board with an annual report describing the pretreatment program activities over the previous twelve-month period. The report shall be transmitted to the Colorado River Basin Water Board office no later than January 31 of each year and include:
 - a. A summary of actions taken by the Discharger which ensures industrial-user compliance;
 - b. An updated list of industrial users (by SIC categories) which were issued permits, and/or enforcement orders, and a status of compliance for each user; and
 - c. The name and address of each user that received a revised discharge limit.
4. SMRs 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 SMRs, and other information requested by the Colorado River Basin Water Board, shall be signed by a principal executive officer or ranking elected official.

¹¹ Most Probable Number per gram.

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 Colorado River Basin Water Board's Executive Officer.
8. The Discharger shall attach a cover letter to the SMRs. The information contained in the cover letter shall clearly identify violations of the WDRs; 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.
9. Daily, weekly, and monthly monitoring shall be included in the monthly monitoring report. Monthly monitoring reports shall be submitted to the Colorado River Basin Water Board by the 15th day of the following month. Quarterly monitoring reports shall be submitted by January 15th, April 15th, July 15th and October 15th. Annual monitoring reports shall be submitted by January 15th of the following year.
10. The Discharger shall submit all documents electronically, including those required to assure compliance with this Order and those that are normally sent via mail, such as regulatory reports, documents, submissions, materials, data, and correspondence. All documents must be emailed on or prior to the regulatory due date. To accomplish electronic submittal of documents the Discharger shall convert the signed original document to Portable Document Format (PDF) or other appropriate Microsoft application, such as Excel, and emailed to

RB7-wdrs_paperless@waterboards.ca.gov

Documents that are 50 MB or larger should be split into multiple files and saved in files smaller than 50 MB appropriately named and identified as part one of three for example. Documents that are not suitable for email should be transferred to a disk and mailed to the Colorado River Basin Water board office in Palm Desert:

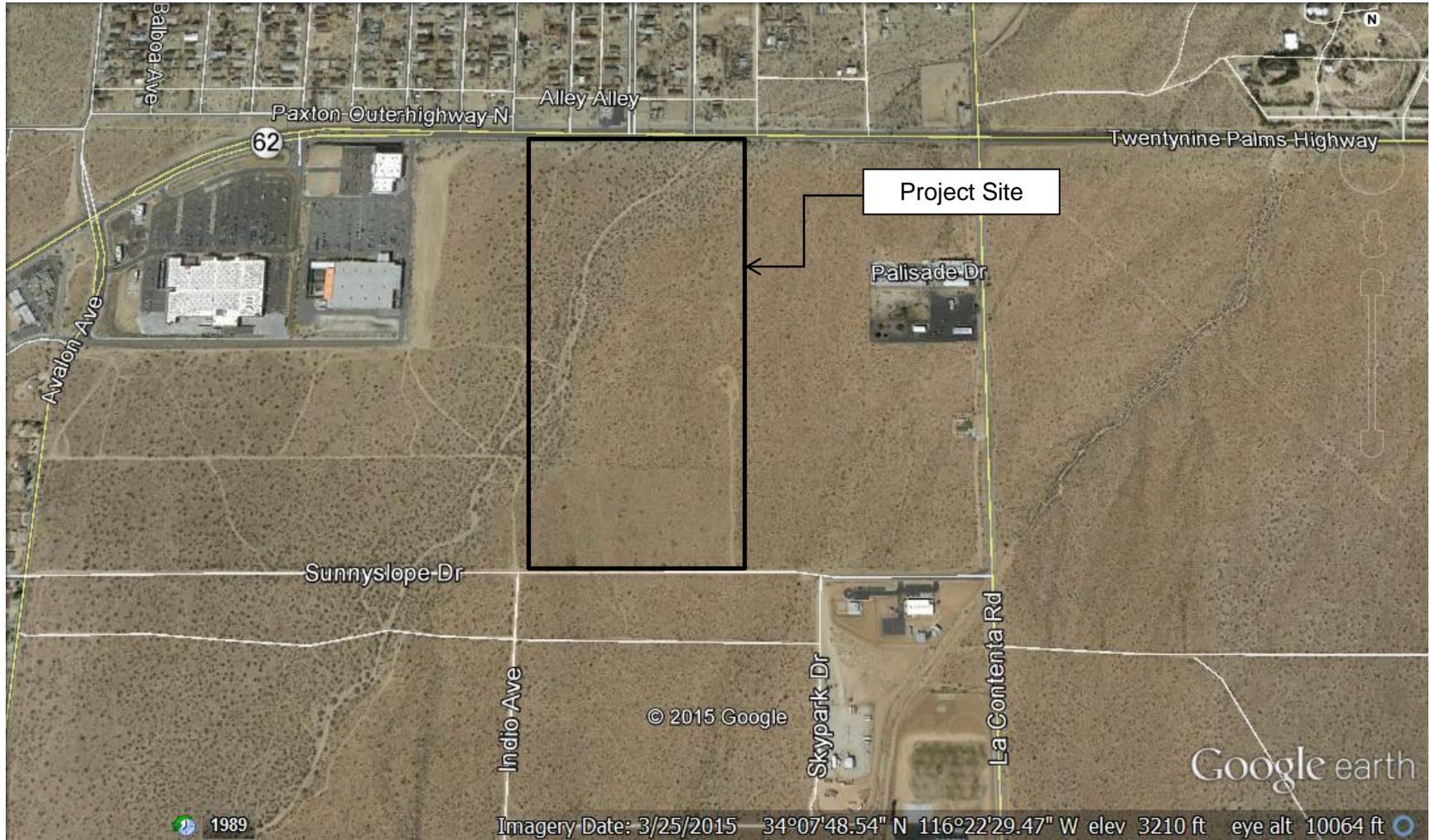
California Regional Water Quality Control Board
Colorado River Basin Region
73720 Fred Waring, Suite 100
Palm Desert, CA 92260



ROBERT PERDUE
Executive Officer
9/17/15

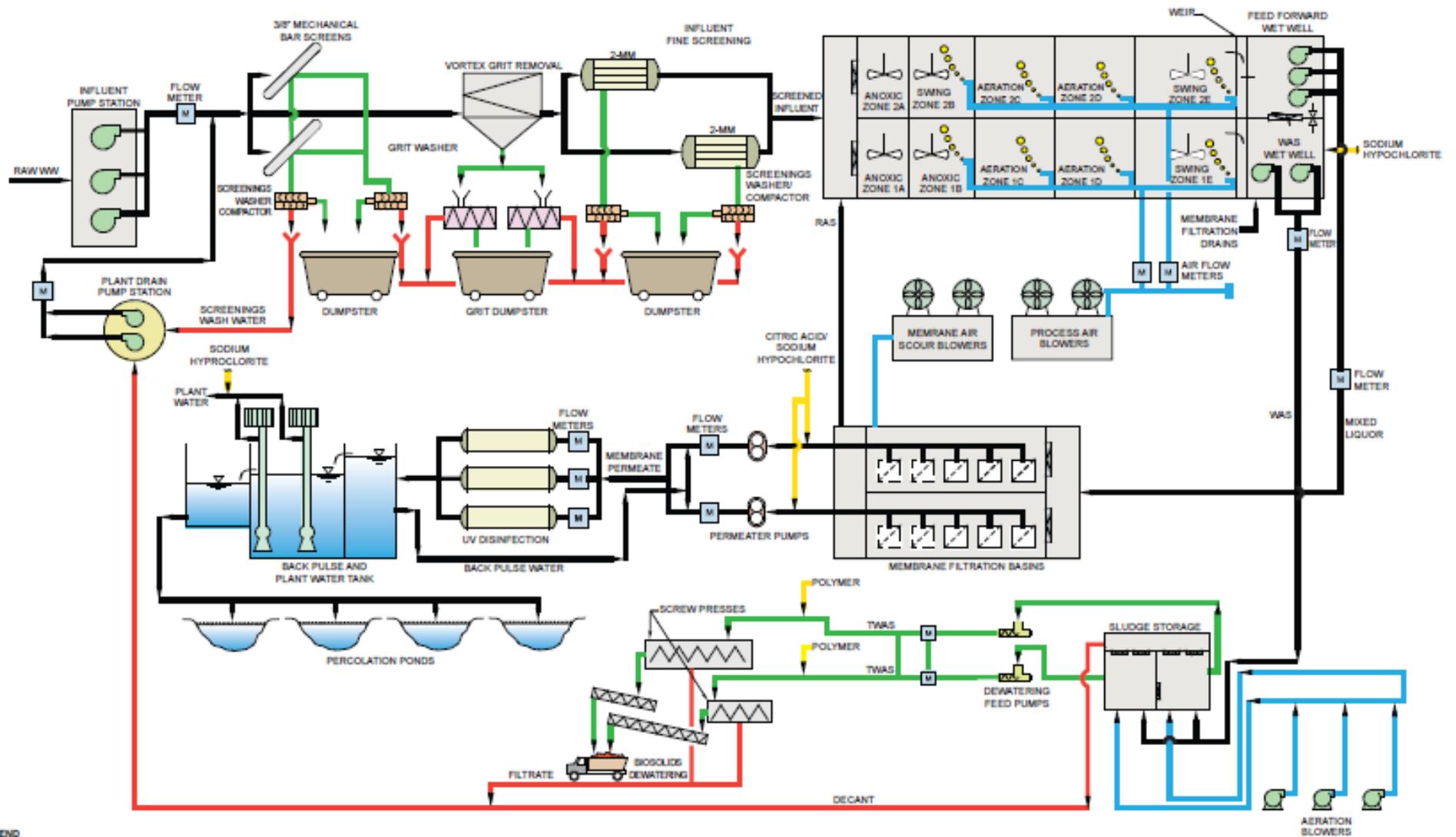
Date

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION



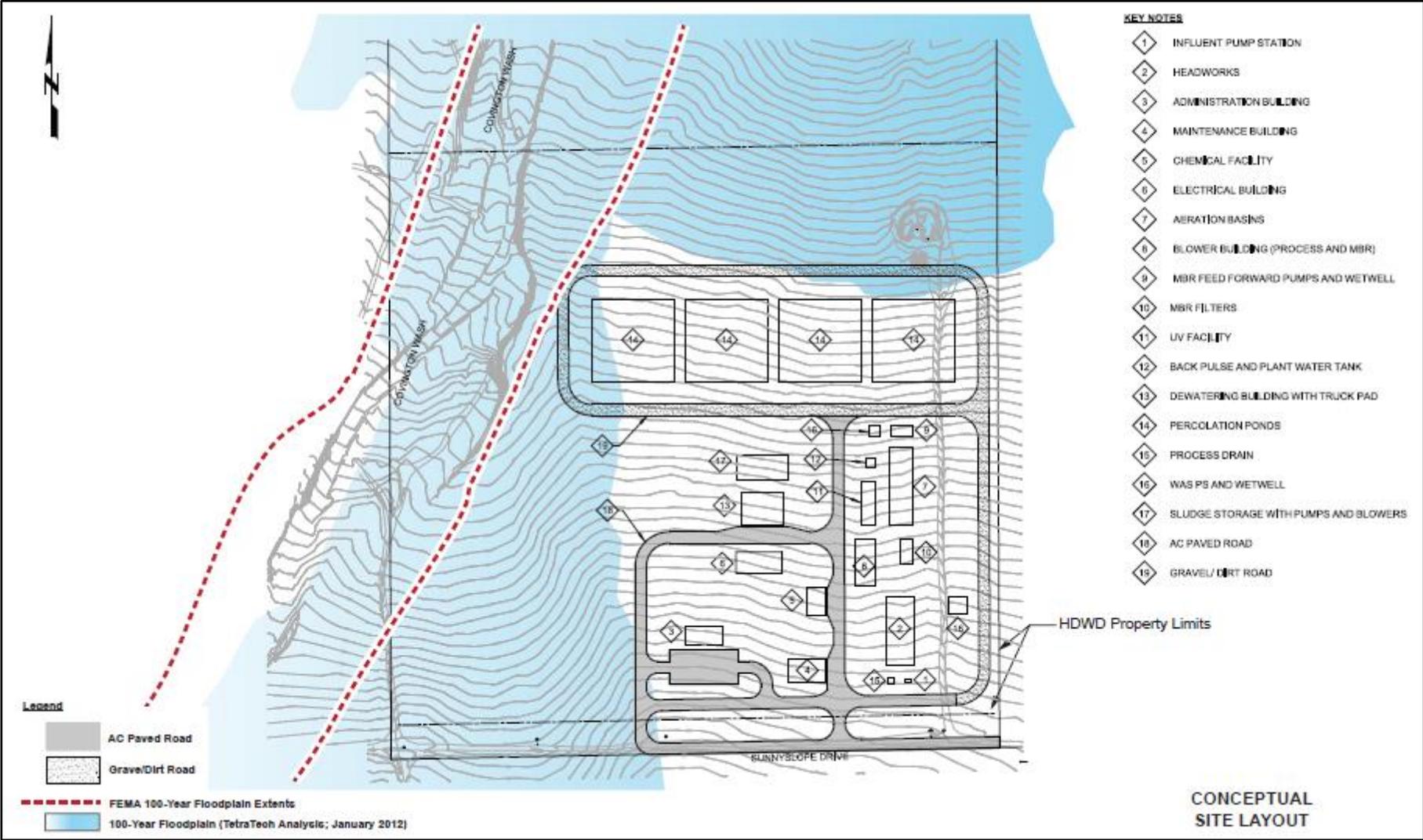
HI-DESERT WATER DISTRICT, OWNER/OPERATOR
YUCCA VALLEY WASTEWATER RECLAMATION PLANT
Yucca Valley – San Bernardino County
W½ of the NE¼ of Section 32, T1N, R6E, SBB&M

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



END

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



HI-DESERT WATER DISTRICT
YUCCA VALLEY WASTEWATER RECLAMATION PLANT
ATTACHMENT C – CONCEPTUAL SITE LAYOUT

Board Order R7-2015-0043