

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

BOARD ORDER R7-2012-0006

**WASTE DISCHARGE REQUIREMENTS  
FOR**

**HI-DESERT MEMORIAL HEALTH CARE DISTRICT, LAND OWNER  
JOSHUA BASIN WATER DISTRICT, OWNER/OPERATOR  
HI-DESERT MEDICAL CENTER WASTEWATER TREATMENT FACILITY  
City of Joshua Tree – San Bernardino County**

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

1. Joshua Basin Water District (JBWD), 61750 Chollita Road, Joshua Tree, CA 92252, submitted a Report of Waste Discharge (ROWD), dated July 12, 2010, to discharge treated domestic wastes via seepage pits generated by the Hi-Desert Medical Center (HDMC), located at 6601 White Feather Road, Joshua Tree, CA 92252, in San Bernardino County, as shown in Attachment A, attached hereto and made part of this Order by reference. An Engineering Report, dated August 2010, was submitted in support of the ROWD.
2. Hi-Desert Memorial Health Care District (HDMHCD) owns and operates an existing medical center in the community of Joshua Tree, consisting of the main hospital, an education center, and a continuing care center. The medical center is located on Assessor's Parcel Numbers 060-406-120, 060-406-103 and 060-406-104.
3. JBWD (WWTF owner and operator) and HDMHCD (land owner) propose to build and operate a Wastewater Treatment Facility (WWTF) to treat domestic wastewater generated at HDMC. JBWD and HDMHCD, as the responsible parties for the proposed WWTF, are hereinafter, either individually or jointly, referred to as the Discharger.
4. JBWD and HDMHCD are to enter into an Agreement to set forth commitments and agreements between the agencies with respect to the financial contributions, design, construction, operation and maintenance concerning the WWTF. JBWD would design, build, own and operate the Phase I wastewater treatment plant. HDMHCD would pay for all of the cost to design, build and operate the plant. HDMHCD is to remain the legal land owner, but is to provide an easement to JBWD for the purpose of construction, operation and maintenance of the WWTF. Under the terms of the Agreement, JBWD will be the owner and operator of the WWTF, and as such, is responsible for the day-to-day compliance with this Order. However, HDMHCD, as the land owner, is also jointly responsible for complying with the terms of this Order.
5. Currently, domestic wastewater from the medical center is treated in septic tanks and disposed of in seepage pits. HDMHCD proposes to expand the medical facilities, abandon the septic tanks, and treat the center's current and projected wastewater

flows with a package plant, and dispose the effluent from the package plant through seepage pits. The expansion consists of Phases 1 and 2, which include 25,000 square-feet of additional medical facilities and have a projected completion date of 2015. HDMHCD may further expand the care center following completion of Phases 1 and 2. This Order addresses the current wastewater flows and Phase 1 projected flows.

### **Wastewater System and Discharge**

6. HDMC is currently enrolled under General Board Order 97-500 for on-site subsurface disposal systems. Domestic wastewater generated at the facility is currently treated in septic tanks and disposed of through seepage pits. The existing septic system consists of:
  - a. HDMC east: one 31,500 gallon septic tank, 14 four-foot diameter and 40-foot deep seepage pits, nine six-foot diameter and 20-foot deep seepage pits;
  - b. HDMC west: one 7,500 gallon septic tank, four 1,500 gallon septic tanks and nine seepage pits;
  - c. Continuing Care Center: six septic tanks with a total capacity of 26,200 gallons and sixteen seepage pits;
  - d. HDMC south: two four-foot diameter and 40-foot deep seepage pits for disposing cooling tower discharge only.
7. The Discharger adopted its Wastewater Treatment Strategy in June 2009. This strategy defined the steps by which the Discharger will transition septic treatment systems to localized package treatment systems, and ultimately to a centralized collection and treatment system. In compliance with this strategy, the Discharger proposes to build a new wastewater treatment facility (WWTF) to service the existing 124,356 square foot medical center and the proposed 25,000 square foot expansion. The WWTF will treat an average of 52,000 gallons per day (gpd), a maximum of 73,000 gpd, and a peak flow of 130,000 gpd of domestic sewage generated by the medical center.
8. The WWTF will consist of a packaged upflow sludge blanket filtration treatment system. The treatment process is a modification of the extended aeration process that incorporates an anoxic selector zone and an upflow sludge blanket filtration clarifier in one integrated vessel. The facility will include metering instrumentation, screening, an equalization tank, an extended aeration tank, a secondary clarifier, and an aerobic sludge digester. The plant may operate in nitrification/denitrification mode. Effluent will be disposed of via 16 new on-site seepage pits. Solids and sludge will be removed from the treatment train by a licensed septage hauler, and disposed of in accordance with state regulation. The treatment process is shown in Attachment B, attached hereto and made part of this Order by reference.

9. The Discharger proposes to use a grade level 1 State Certified Wastewater Treatment Plant Operator licensed to operate and maintain the WWTF.
10. The Discharger proposes to keep the existing septic system/seepage pits as emergency stand-by in the event of WWTF failure.
11. HDMC currently uses a significant amount of potable water for its cooling tower operations, according to the Discharger's Engineering Report. The discharge from the cooling towers is disposed into seepage pits built in 1976 at the HDMC near the main campus helipad. The Regional Water Board intends to regulate the discharge of cooling tower wastewater in the future with individual waste discharge requirements.

### **Hydrogeologic Conditions**

12. The site is relatively flat, and has an average elevation of 2,640 feet above sea level, and is not within a FEMA designated 100-year flood plain.
13. The site is located in a seismically active desert region, approximately 4,000 feet south of the Pinto Mountain Fault Trace.
14. Annual precipitation averages about 4.5 inches.
15. A geotechnical investigation conducted at the site in January 2002 for an expansion of the facility and sewage disposal system collected data from four (4) borings, drilled 29 to 51.5 feet below ground surface (bgs). The geotechnical report of the investigation, titled "Geotechnical/Geological Engineering Report and Percolation Testing, Kitchen Addition & Sewage Disposal System for Perinatal Addition, 6601 White Feather Road, Joshua Tree, California," indicated the following:
  - a. The site is underlain by fine to medium grained silty sands and sands;
  - b. Subsurface soils are loose to very dense; and
  - c. No groundwater was encountered in the borings.
16. Results of the soils percolation testing indicate a percolation design criterion of four (4) gallons per square foot per day. The discharger proposes to use a design criterion of one (1) gallon per square foot per day as a conservative value.
17. Seismic analysis was conducted of the site and is summarized in the geotechnical investigation. The site is subject to strong ground shaking due to potential fault movements along the Pinto Mountain, Burnt Mountain, Eureka Peak and Landers Faults. The minimum seismic design should comply with the latest edition of the California Building Code (CBC) for Seismic zone 4. The site is suitable for the

proposed development provided the recommendations of the geotechnical report are followed in the design and construction of the project.

18. A second geotechnical investigation was completed in November 2010, titled "Geotechnical Report Update with Supplemental Recommendations". Three (3) exploratory borings were drilled to depths from about 11.5 to 41.5 feet below the existing ground surface. Soils analyzed in the confirmation borings are alluvial and consist of interbedded sands and silty sands. The soils are loose to medium dense. The report provides updated seismic design criteria to comply with the 2010 edition of the CBC.
19. The Discharger provides domestic water services to the community of Joshua Tree. Supply well data indicate areal groundwater is at least 360 feet bgs, and is of high quality. The District's 2008 Annual Water Quality Report indicates the following for well samples collected in 2007:

<u>Constituent</u>	<u>Units</u>	<u>Average Concentration</u>	<u>Range of Concentrations</u>
Chromium	µg/L <sup>1</sup>	14.2	11 - 18
Copper	mg/L <sup>2</sup>	ND <sup>3</sup>	ND
Fluoride	mg/L	0.6	ND - 0.77
Nitrate (as Nitrate, NO <sub>3</sub> )	mg/L	12.03	11 - 15
Total Dissolved Solids	mg/L	230	170 - 320
Chloride	mg/L	14	12 - 16
Sulfate	mg/L	55.7	14 - 130
Sodium	mg/L	46	33 - 61

1 Micrograms per liter

2 Milligrams per liter

3 Non-detect

20. There are three wells (Nos. 11, 14, and 15) located near the project site. The well nearest to the proposed discharge is Well No. 14, which is approximately 0.9 miles from the disposal area. The Pinto Mountain Fault located to the north of HDMC creates a barrier for groundwater flow. Groundwater at this location flows to the north towards the fault, then east toward the Copper Mountains.

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

21. The Water Quality Control Plan for the Colorado River Basin Region of California (Basin Plan), as amended to date, designates the beneficial uses of ground and surface waters in this Region.

22. The proposed discharge is within the Joshua Tree Hydrologic Unit. Beneficial uses for groundwater in the Joshua Tree Hydrologic Unit include:
- a. Municipal supply (MUN),
  - b. Industrial supply (IND), and
  - c. Agricultural supply (AGR).
23. Waste Discharge Requirements (WDRs) implement narrative and numeric 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, California Code of Regulations (CCRs). The narrative objectives are:
- “Ground water...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.)
- “Discharges of water softener regeneration brines...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.)
24. 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, CCRs, 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 WDRs, or a WDRs waiver;
  - c. WDRs 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**

25. State Water Resources Control Board (State Water Board) Resolution No. 68-16 (“Policy with Respect to Maintaining High Quality Waters of the State”) (hereinafter Resolution No. 68-16) requires a Regional Water Board in regulating the discharge of waste to maintain high quality waters of the state (i.e., background water quality) until it

- is demonstrated that any change in quality will be consistent with maximum benefit to the people of the State, will not unreasonably affect beneficial uses, and will not result in water quality less than as described in plans and policies (e.g., violation of any water quality objective). Moreover, the discharge is required to meet WDRs that result in the best practicable treatment or control (BPTC) of the discharge necessary to assure pollution or nuisance will not occur, and highest water quality consistent with maximum benefit to the people will be maintained.
26. Some degradation of groundwater from the discharge to the seepage pits is consistent with Resolution No. 68-16, provided that this 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.
27. 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 domestic wastewater;
  - b. Sludge 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.
28. Constituents in domestic WWTF effluent that present the greatest risk to groundwater quality are nitrogen, coliforms (pathogen-indicator organisms), and dissolved salts (TDS). The proposed WWTF provide substantial removal of soluble organic matter, solids, and nitrogen. While 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). Given depth to groundwater and soil types beneath the seepage pits, effluent disinfection is not needed to prevent pathogen-indicator bacteria from reaching groundwater at densities exceeding those prescribed in Title 22, CCR.

- However, the WWTF, seepage pits, and soils beneath the disposal areas are not likely to prevent groundwater degradation by TDS. Therefore, degradation to groundwater, if any, should be limited to the area underlying the disposal areas, and to salinity constituents.
29. The typical incremental addition of dissolved salts from domestic water usage is 150 to 380 mg/L. Considering current water conservation practices, the TDS increase allowed for this project is 300 mg/L. An average limitation of 530 mg/L for TDS in effluent, limits salt degradation to a reasonable amount (300 mg/L over the average TDS of municipal water supply), and reasonably protects present, and anticipated, future beneficial uses of groundwater beneath.
  30. Groundwater limits equal to water quality objectives for indicator waste constituents are appropriate as well as a more restrictive limit for TDS in groundwater than that prescribed by Title 22, CCR. The proposed project contributes to economic development in the area. This factor and the associated increase in TDS 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.
  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.

### **CEQA and Public Participation**

32. 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.), the County of San Bernardino Land Use Services Department (County), acting as the Lead Agency, prepared an Initial Study and proposed Mitigated Negative Declaration for the addition of a three-story administrative office building, a maintenance building and a sewage treatment facility to an existing hospital complex, the HDMC. Based on the Initial Study, the County determined that although the proposed expansion of the HDMC facilities could have a significant effect on the environment, revisions in the project plans agreed to by HDMC would avoid the effect or mitigate the effect to a point where clearly no significant effect on the environment would occur, and there was no substantial evidence in light of the whole record that the project, as revised, may have a significant effect on the environment. The County's determination is reflected in the finding made in the proposed Mitigated Negative Declaration. The County circulated the Initial Study and proposed Mitigated Negative Declaration for public comment. On December 16, 2008, the County filed a Notice of Determination (NOD) with the Clerk of the Board of Supervisors, County of San Bernardino, regarding its approval of the proposed Mitigated Negative Declaration. The County concludes in the NOD that the proposed project, with mitigation measures incorporated, will not have a significant effect on the environment. The mitigation measures were made a condition of

approval for the project. The effective date of the NOD is December 30, 2008. The Regional Water Board has considered the Mitigated Negative Declaration and potential impacts to water quality. Compliance with these waste discharge requirements will prevent any significant adverse impacts to water quality.

33. 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.
34. The Board, in a public meeting, heard and considered all comments pertaining to this discharge.

IT IS HEREBY ORDERED, that 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 wastes to surface waters or surface water drainage courses is prohibited.
2. 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.
3. Bypass or overflow of untreated or partially treated waste is prohibited, except as allowed in the Provision of this Board Order.
4. Discharge of waste at any point upstream of the WWTF is prohibited.
5. Discharge of wastewater from WWTFs, other than into the seepage pits described in Finding of this Board Order is prohibited.
6. WWTFs and seepage pits shall be maintained to prohibit sewage or treated effluent from surfacing or overflowing.

**B. Discharge Specifications**

1. The 30-day monthly average daily discharge from the WWTF shall not exceed 52,000 gpd.
2. Effluent from the WWTF shall not have a pH below 6.0 or above 9.0.
3. The treatment or disposal of wastes from these facilities shall not cause pollution or nuisance as defined in Sections 13050(l) and 13050(m) of Division 7 of the California Water Code.

4. Public contact with wastewater and the subsurface disposal areas shall be precluded or controlled through fences, signs, or other acceptable alternatives.
5. The discharge shall not cause degradation of any water supply.
6. 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.
7. Effluent from the main WWTF shall not exceed the following effluent limits:

<u>Constituent</u>	<u>Units</u>	<u>Monthly Average</u>	<u>Weekly Average</u>	<u>Daily Maximum</u>
BOD <sub>5</sub> <sup>1</sup>	mg/L	30	45	65
Total Suspended Solids	mg/L	30	45	65
Nitrogen (as Total Nitrogen)	mg/L	10	15	20
Total Dissolved Solids (TDS)	mg/L	530	--	--

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

**C. Sludge Disposal**

1. 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.
2. 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.
3. 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.

**D. Groundwater Limitations**

1. Discharge of waste constituents from the WWTF seepage pits shall not cause groundwater to:
  - a. 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; et seq.;

- b. Exhibit a pH of less than 6.5 or greater than 8.5 pH units;
- c. Acquire taste, odor, toxicity, or color that creates nuisance or impairs beneficial use.

**E. Provisions**

1. The Discharger shall comply with Monitoring and Reporting Program (MRP) R7-2012-0006, and future revisions thereto, as specified by the Regional Water Board Executive Officer.
2. 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.
3. 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.
4. 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.
5. This Board Order does not authorize violation of any federal, state, or local laws or regulations.
6. Standby power generating facilities shall be available to operate the plant during a commercial power failure.
7. 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 (Cal. Water Code, § 13000 et seq.), and is grounds for enforcement action.
8. **No later than 45 days after adoption of this Order**, the Discharger shall submit a technical report in the form of a Quality Assurance Project Plan (QAPP) to conduct and submit the results of a study prepared by a registered civil engineer to characterize (a) the influent into the WWTF, and (b) the effluent from the cooling towers. The report shall be submitted to the Executive Officer for approval and contain a proposed time schedule for implementation and quality assurance (QA) procedures to obtain representative samples of the influent into the WWTF and effluent from the Cooling Towers. The samples shall be analyzed for the following constituents:
  - Metals, including Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Copper, Cyanide, Iron, Lead, Manganese, Mercury, Molybdenum, Nickel, Selenium, Silver, Thallium and Zinc;

- General Minerals, including at a minimum the following constituents: Calcium, Magnesium, Nitrogen, Potassium, Sulfate, Total Alkalinity (including alkalinity series), Hardness, TDS, and an ion balance;
- Volatile Organic Constituents (EPA Method 624);
- Semi-volatile organic constituents (EPA Method 625).

Following the completion of, and based on the results of, the study requested above, the Regional Board may modify the effluent limitations provided in this Order.

9. **At least 30 days prior to beginning WWTF operations and waste discharge**, the Discharger shall submit an engineering report pursuant to Section 13267 of the California Water Code. The report shall be prepared by a registered civil engineer experienced in the design of domestic wastewater treatment and disposal facilities, and describe:
  - a. The as-built WWTF and disposal systems;
  - b. The type and location of flow metering instruments installed to comply with the effluent flow limit, and MRP No. R7-2012-0006;
  - c. The subsurface disposal systems, including: the number, size, and construction specifications of the leach lines; the area covered by the seepage pits, and available standby area for 100% replacement of the seepage pits;
  - d. A map to scale (1 inch = 200 feet, or less) providing the location of the WWTF, disposal area, and property boundaries;
  - e. Certification that the facilities were designed and built to comply with this order; and
  - f. The Operation and Maintenance (O&M) Plans for WWTF, and subsurface disposal areas, which shall:
    - i. Instruct field personnel to manage daily discharge operations to comply with the terms and conditions of this Order, and make field adjustments to prevent nuisance conditions (e.g., surfacing water);
    - ii. Include nuisance condition, troubleshooting flowcharts for the WWTF and disposal areas, and notification requirements in case of an emergency;
    - iii. Include an Inspection and Maintenance Plan describing the procedures and schedule for inspecting and testing the WWTF, and necessary maintenance; and
    - iv. Provide instructions to determine when to remove grease/scum/sludge from the WWTF, and proper procedures for disposal of removed solids.
10. **Within 30 days of adoption** of the WWTF Operating Agreement, entered into between JBWD and HDMHC, the Discharger shall submit a copy of the final

Agreement to the Regional Water Board.

11. The discharger's WWTP 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.
12. 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.
13. 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. 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 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. The Discharger shall report all intentional or unintentional spills occurring within the facility or collection system to the Regional Water Board office in accordance with the above time limits.

14. 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 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 required for essential maintenance to assure efficient operation; and

Neither effluent nor receiving water limitations are exceeded; and

The Discharger notifies the Board ten (10) days in advance.

The Discharger shall submit notice of an unanticipated by-pass.

15. 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.

16. The Discharger is the responsible party for the WDRs and the Monitoring and Reporting Program (MRP) for the facility. The Discharger shall comply with all conditions of these WDRs. Violations may result in enforcement action, including Regional Water Board orders or court orders that require corrective action or impose civil monetary liability, or modification or revocation of these WDRs by the Regional Water Board.

17. 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.
18. The Discharger shall report all instances of noncompliance. Reports of noncompliance shall be submitted with the Discharger's next scheduled self-monitoring report or earlier if requested by the Regional Water Board Executive Officer, or if required by an applicable standard for sludge use and disposal.
19. 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.
20. 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.
21. 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.
22. 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 January 19, 2012.

Ordered by: \_\_\_\_\_  
*Original Signed By*  
ROBERT PERDUE  
Executive Officer

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

MONITORING AND REPORTING PROGRAM R7-2012-0006  
FOR  
JOSHUA BASIN WATER DISTRICT, OWNER, OPERATOR  
HI-DESERT MEDICAL CENTER WASTEWATER TREATMENT  
City of Joshua Tree – San Bernardino County

Location of Wastewater Treatment Facilities and Discharges:  
Latitude/Longitude, 34.133° N / 116.274° W

**MONITORING**

1. 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 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.
2. Samples shall be collected at the locations specified in this Board Order. If no locations are specified, sampling shall be conducted at the most representative sampling points available.
3. 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 no activity during the required reporting period.

**Wastewater Treatment Facility Influent Monitoring**

4. The Discharger shall monitor influent to the WWTF according to the following schedule:

<u>Constituents</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency<sup>1</sup></u>
Flow	gpd <sup>1</sup>	Measurement	Daily	Monthly
20° C BOD <sub>5</sub>	mg/L <sup>2</sup>	Grab	2/Month	Monthly
Total Suspended Solids	mg/L	Grab	2/Month	Monthly
Settleable Solids	mg/L	Grab	2/Month	Monthly

<sup>1</sup> Gallons per day (average daily flow calculated from meter readings)

<sup>2</sup> Milligrams per liter

### Wastewater Treatment Facility Secondary Effluent Monitoring

5. The Discharger shall monitor effluent from the WWTF according to the following schedule:

<u>Constituents</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
Flow	gpd <sup>1</sup>	Measurement <sup>2</sup>	Daily	Monthly
20° C BOD <sub>5</sub>	mg/L <sup>3</sup>	Grab	Weekly	Monthly
Total Suspended Solids	mg/L	Grab	Weekly	Monthly
Settleable Solids	mg/L	Grab	Weekly	Monthly
pH	s.u. <sup>4</sup>	Grab	Weekly	Monthly
Nitrite (NO <sub>2</sub> -N) as Nitrogen	mg/L	Grab	Weekly	Monthly
Nitrate (NO <sub>3</sub> -N) as Nitrogen	mg/L	Grab	Weekly	Monthly
Total Nitrogen	mg/L	Grab	Weekly	Monthly
Total Dissolved Solids	mg/L	Grab	Weekly	Monthly
VOCs <sup>5</sup>	µg/L <sup>6</sup>	Grab	Quarterly	Quarterly

1 Gallons per day (average daily flow calculated from meter readings)

2 Flow Meter Reading

3 Milligrams per liter

4 Standard Units

5 Volatile Organic Compounds

6 Micrograms per liter

6. Quarterly reports shall be submitted summarizing facility performance.

### Water Supply to the Medical Center

7. The Discharger shall establish a sampling station to collect representative samples of water supplied to the Medical Center for municipal use; and shall provide written notification of the proposed sampling station to the Regional Water Board Executive Officer for review and approval. At a minimum, the municipal water supply shall be monitored for the following:

<u>Constituents</u>	<u>Units</u>	<u>Sampling Frequency</u>
TDS	mg/L	Monthly
pH	pH units	Monthly
General Minerals <sup>1</sup>	mg/L	Annually

1 General Minerals shall include at a minimum the following constituents: Calcium, Magnesium, Nitrogen, Potassium, Sulfate, Sodium, Total Alkalinity (including alkalinity series), and Hardness.

### REPORTING

1. 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 Waste Discharge Requirements (WDRs). Where appropriate, the Discharger shall include supporting calculations (e.g., for monthly averages).
2. 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, 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.
  - c. Records of monitoring information shall include:
    - i. The date, exact place, and time of sampling or measurement;
    - ii. The individual who performed the sampling or measurement;
    - iii. The date the analysis was performed;
    - iv. The individual performing the analysis;
    - v. The analytical technique or method used; and
    - vi. The result of the analysis.
3. The result of any analysis taken more frequently than required at the locations specified in this Monitoring and Reporting Program (MRP) shall be reported to the Regional Water Board.
4. Monitoring reports 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 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 MRP, 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. Authorization is made in writing by the person described above;

- b. Authorization specifies an individual or person having responsibility for the overall operation of the regulated disposal system; and
  - c. Written authorization is submitted to the Regional Water Board Executive Officer.
8. Reporting a failure in the facility (wastewater treatment plant, and collection and disposal systems) shall be as described the Provisions of this Board Order. Results of analyses performed shall be provided within 15 days of sample collection.
  9. The Discharger shall attach a cover letter to the Self Monitoring Report. The cover letter shall clearly identify WDRs violations, discuss corrective actions taken or planned, and propose a time schedule for corrective action (if applicable). Identified violations shall describe the requirement violated, and the nature of the violation.
  10. Daily, weekly, and 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 to the Regional Water Board by January 15<sup>th</sup>, April 15<sup>th</sup>, July 15<sup>th</sup>, and October 15<sup>th</sup>, of each year. Annual monitoring reports shall be submitted to the Regional Water Board by January 15<sup>th</sup> of each year.
  11. The Discharger shall submit monitoring reports to:

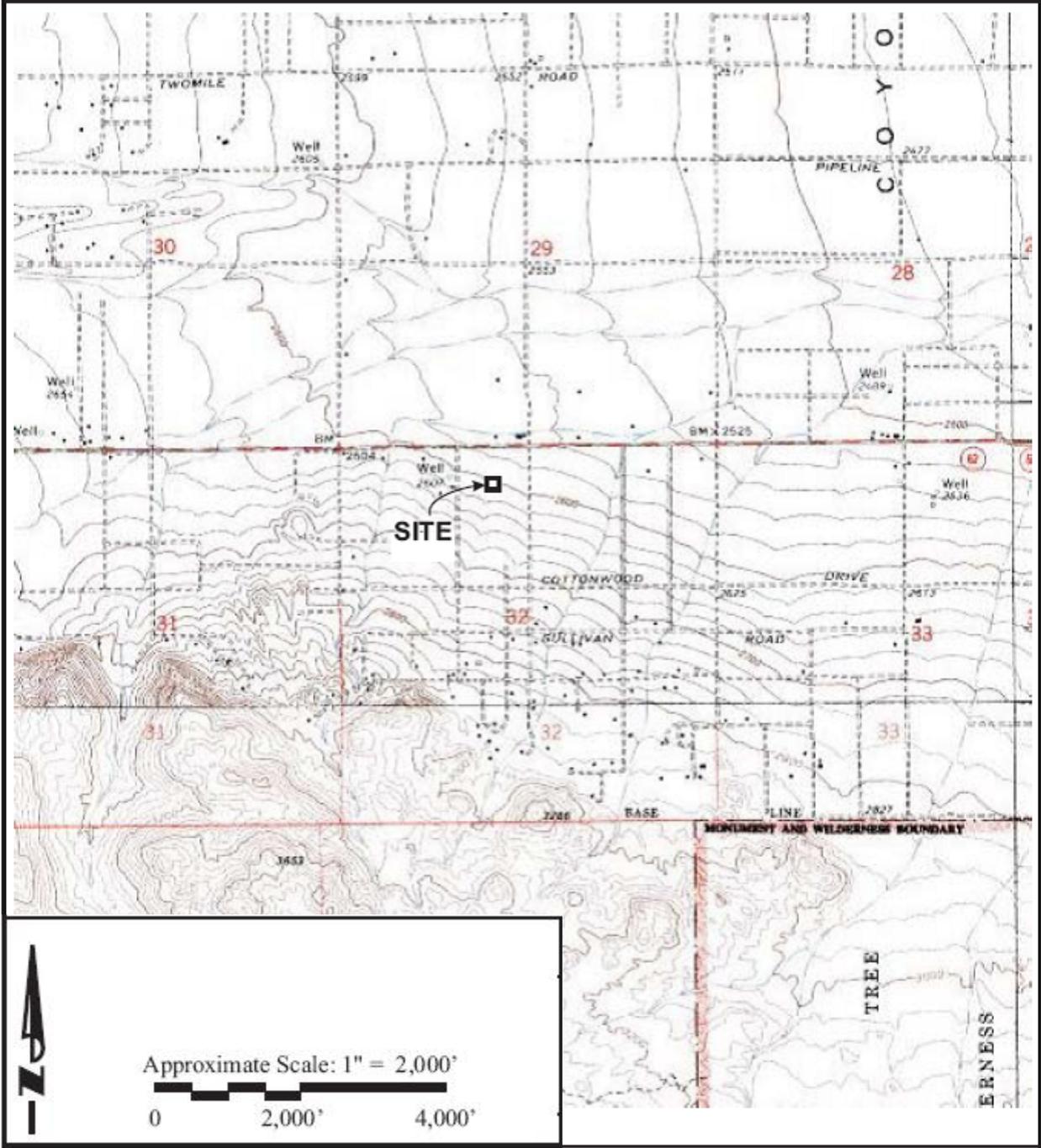
California Regional Water Quality Control Board  
Colorado River Basin Region  
73-720 Fred Waring, Suite 100  
Palm Desert, CA 92260

Ordered by: Original Signed By  
ROBERT PERDUE  
Executive Officer

January 19, 2012  
Date

California Regional Water Quality Control Board  
Colorado River Basin Region

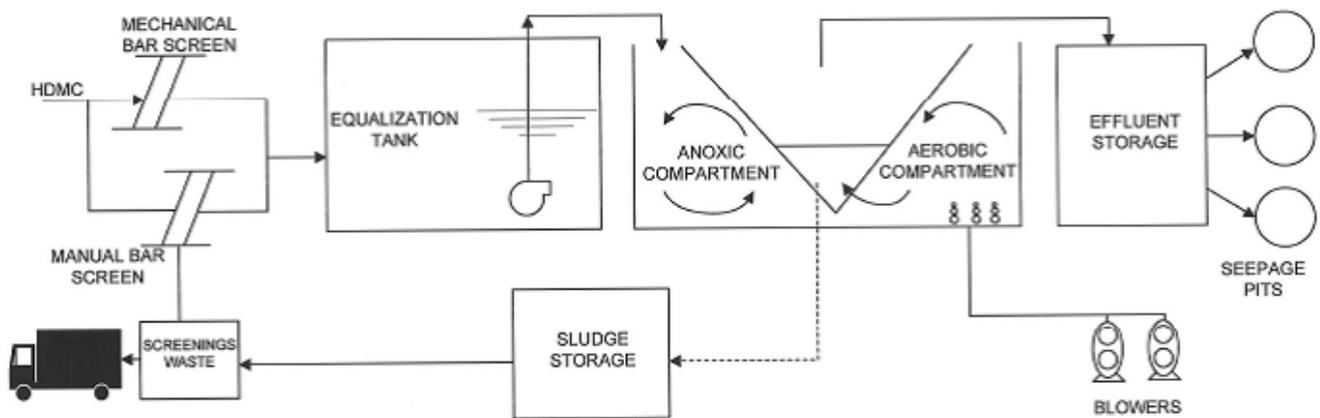
Joshua Basin Water District, Owner/Operator  
Hi-Desert Medical Center  
Wastewater Treatment, and Disposal Systems  
San Bernardino County



Facility Location: 34.132° N Latitude and 116.275° W Longitude

California Regional Water Quality Control Board  
Colorado River Basin Region

Figure 4: Preliminary Process Flow Diagram



Joshua Basin Water District Owner/Operator  
Hi-Desert Medical Center  
Wastewater Treatment, and Disposal Systems  
San Bernardino County

Facility Location: 34.133° N Latitude and 116.274° W Longitude