

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

ORDER NO. R7-2008-0046

WASTE DISCHARGE REQUIREMENTS
FOR
US BUREAU OF RECLAMATION, OWNER
IMPERIAL IRRIGATION DISTRICT, OPERATOR
IMPERIAL DAM HOUSING AND OFFICES DOMESTIC WASTEWATER PONDS
Winterhaven – Imperial County

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

A. Findings of Fact

1. On April 4, 2008, Imperial Irrigation District (hereinafter referred to as the Operator or IID), P.O. Box 927, Imperial, CA 92251, submitted an application and Report of Waste Discharge (ROWD) for renewal of Waste Discharge Requirements (WDRs) for the Wastewater Treatment Facility (WWTF) serving the Imperial Dam Housing and Office, which are located at Rt. 1, 2400 Imperial Road, Winterhaven, CA 92283.
2. The WWTF consists of a septic tank and three oxidation ponds. The tank has a capacity of 7,100 gallons per day, and the ponds are used for disposal of waste by evaporation-percolation. The Dam's housing and office operations generate an average of 4,800 gallons per day (gpd) of domestic waste. The facility discharges a maximum of 7,500 gpd. The waste flows by gravity into the 7,100 gallon septic tank where it receives primary treatment, and it continues to flow from the tank by gravity into three (3) oxidation earthen ponds for disposal by evaporation/percolation. The US Bureau of Reclamation is the owner of the land and the WWTF. IID is the operator of the WWTF. The IID and US Bureau of Reclamation are hereafter jointly referred to as Discharger.
3. The ponds are located in the SE ¼ of Section 17, T15S, R23E, SBB&M, and Assessor's Parcel Number 050-180-007-000, 32.8667° N Latitude, 114.4778° W Longitude.
4. The Operator's monitoring data reported the following average characteristics of the discharged wastewater:

Total Dissolved Solids	1074 mg/L
Nitrate	2.04 mg/L
pH	7.6
Chloride	214 mg/L
Fluoride	1.11 mg/L
Sulfate	496 mg/L
BOD₅	54.9 mg/L

5. The Operator has reported the following characteristics of the receiving groundwater from the only domestic well located more than 1000 feet from the percolation ponds.

Total Dissolved Solids	800 mg/L
Nitrate	0.25 mg/L
pH	8.06
Chloride	127 mg/L
Fluoride	1.01 mg/L
Sulfate	284 mg/L

6. The Discharger has been subject to WDRs under Board Order No. 94-057.
7. The Discharger has contracted the service of a private contractor to pump out the septic tank and remove solids periodically.
8. Depth to groundwater at the disposal location has not been established. In a previous ROWD received March 18, 1994, the Operator reported that the depth to groundwater (at the domestic water well over 1,000 feet away) is 85 feet below ground surface (bgs). However, actual depth to groundwater may be much less than 85 feet bgs because, during a site inspection performed by Regional Board staff on May 20, 2008, groundwater was observed surfacing into a seepage collection drain adjacent to the oxidation ponds.
9. The Water Quality Control Plan for the Colorado River Basin Region of California (Basin Plan) was adopted on November 17, 1993, and, as amended to date, designates the beneficial uses of ground and surface waters in this Region.
10. 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). The regulations require specific categories of facilities which discharge storm water associated with industrial activity to obtain NPDES permits and to implement Best Conventional Pollutant Technology (BCPT) to reduce or eliminate industrial storm water pollution.
11. The State Water Resources Control Board adopted Order No. 91-13-DWQ (General Permit No. CAS000001), as amended by Water Quality Order No. 92-12-DWQ, specifying waste discharge requirements for discharges of storm water associated with industrial activities, excluding construction activities, and requiring submittal of a Notice of Intent by industries to be covered under the Permit.

B. Legal Requirements

1. This Order serves as Waste Discharge Requirements (WDRs) pursuant to Division 7, Chapter 4, Article 4 of the California Water Code (CWC) for discharges that are not subject to regulation under Clean Water Act (CWA) Section 402 (33 U.S.C. Section 1342).
2. The Regional Water Board developed the requirements in this Order based on information submitted as part of the application, through monitoring and reporting programs, and through special studies.

3. In accordance with Section 15301, Article 19, Chapter 3, Division 6, Title 14 of the California Water Code of Regulations, the issuance of these WDRs, which govern the operation of an existing facility involving negligible or no expansion of use beyond that previously existing, is exempt from the provisions of the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.) and implementing CEQA Guidelines (Cal. Code Regs., tit. 14, § 15000 et seq.)
4. The Basin Plan contains implementation programs and policies to achieve the Basin Plan's objectives for all waters in the region. In addition, State Water Resources Control Board (State Water Board) Resolution No. 88-63 requires that, with certain exceptions, the Regional Water Board assign the municipal and domestic supply use to water bodies that do not have beneficial uses listed in the Basin Plan. The discharge for the proposed Wastewater Treatment Facility is located within the Colorado Hydrologic Unit.
5. The Basin Plan states at page 2-19 that the beneficial uses of ground waters in the Colorado Hydrologic Unit, where the subject facility is located, are as follows:
 - a. Municipal and domestic water supply (MUN)
 - b. Industrial (IND)
 - c. Agricultural Supply (AGR)
6. 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:
 - a. Any degradation will be consistent with maximum benefit to the people of the State,
 - b. The degradation will not unreasonably affect beneficial uses, and
 - c. The degradation will not result in water quality less than as described in plans and policies (e.g. violation of any water quality objective).
7. For the Discharger to be able to comply with Resolution No. 68-16, it must demonstrate that degradation:
 - a. Is confined to a reasonable area;
 - b. Is minimized by means of full implementation, regular maintenance, and optimal operation of the WWTF;
 - c. Is limited to waste constituents typically encountered in domestic wastewater;
 - d. And does not result in water quality less than that prescribed in the applicable basin plan, including violation of any water quality objective.
8. Constituents in domestic WWTF effluent that present the greatest risk to groundwater quality are nitrogen, coliforms (pathogen-indicator organisms), and dissolved salts (TDS). The WWTF provides removal of solids collected in the septic tank. Further treatment of soluble organic matter (BOD₅), and pathogen reduction is achieved in the oxidation ponds; but it's highly unlikely that the ponds provide equivalent to secondary treatment because they mainly function as disposal ponds.

9. 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 reported for this facility is 274 mg/L, provided wastes are exclusively domestic and without water softener discharges.
10. While the WWTF provides a necessary service and contributes to the economy throughout the Region (i.e., is a benefit to the State), the Discharger has not properly established actual areal groundwater conditions, including depth to groundwater to enable the Regional Board to determine full compliance with Resolution No. 68-16. Based on the site inspections conducted in May 2008 inspection, the disposal ponds may actually be sitting on top of groundwater. If that is true, the Discharger may be in noncompliance with Resolution No. 68-16. To ensure that degradation is actually confined and does not violate the Basin Plan, the Discharger must establish and report actual depth to groundwater and groundwater quality, and monitor the quality of the discharge to the disposal ponds in terms of removal of organic matter and pathogens (e.g., fecal coliforms) to determine its actual threat to water quality. This Order requires the Discharger to do so.
11. This Order prescribes groundwater monitoring to establish background water quality, and to ensure compliance with Basin Plan objectives. To ensure groundwater degradation is limited, compliance with objectives will be determined through groundwater monitoring wells designated as points of compliance (POCs) to the extent they are necessary. In this context, the Discharger will be investigating background water quality to allow the Regional Board to make a determination on appropriate groundwater protection standards and whether POCs are necessary.
12. Section 13267 of the CWC authorizes Regional Water Boards to require technical and monitoring reports. The Monitoring and Reporting Program required pursuant to these WDRs implements Federal and State monitoring and reporting requirements.
13. The Regional Water Board notified the Discharger and all known interested agencies and persons of its intent to update WDRs for this discharge, and has provided them with an opportunity for a public meeting, and an opportunity to submit comments.
14. The Regional Water Board, in a public meeting, heard and considered all comments pertaining to this discharge.

IT IS HEREBY ORDERED, that Board Order No. 94-057 is rescinded, and in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, the Discharger shall comply with the following:

A. Effluent Limitations

1. Wastewater flow to the evaporation/percolation ponds shall not exceed 7,500 gallons per day.
2. The pH of the effluent shall be maintained between 6.0 and 9.0.

B. Prohibitions

1. Discharge of waste classified as “hazardous” under Section 2521, Chapter 15 of Title 23 of the California Code of Regulations, or “designated”, as defined in CWC Section 13173, is prohibited.
2. The direct discharge of any wastewater from the facility to any surface waters or surface drainage courses is prohibited.

3. Bypass or overflow of untreated or partially treated waste is prohibited.
4. Discharge of treated wastewater at a location or in a manner different from that described in this Board Order, or as otherwise authorized by the Regional Water Board's Executive Officer, is prohibited.
5. The Discharger shall not accept waste in excess of the design treatment capacity of the disposal system.
6. The discharge of waste to land not owned or authorized for such use by the Discharger is prohibited.

C. Discharge Specifications

1. The treatment or disposal of wastes from the facility shall not cause pollution or nuisance, as defined in CWC Sections 13050(l) and (m).
2. A minimum depth of freeboard of two (2) feet shall be maintained at all times in all ponds.
3. No wastewater other than domestic wastewater shall be discharged into the sewage disposal system.
4. Adequate measures shall be taken to assure that flood or surface water drainage waters do not erode or otherwise render portions of the discharge facilities inoperable.
5. The discharge shall not cause degradation of any beneficial use of surface or ground water.
6. Public contact with non-disinfected wastewater shall be precluded through such means as fences, signs, and other acceptable alternatives. Conspicuous signs shall be posted in a prominent location in each area where non-disinfected wastewater is stored on-site. Each sign or label with the wording "Non-disinfected wastewater - No body contact or drinking" shall be displayed as well as the international warning symbol.
7. Objectionable odors originating at this facility shall not be perceivable beyond the limits of the wastewater treatment and disposal area.
8. Treated or untreated sludge or similar solid waste materials shall be disposed at locations approved by the Regional Water Board's Executive Officer.

D. Groundwater Limitations

The discharge to the disposal ponds, in combination with other sources, shall not cause underlying groundwater to:

1. Contain waste constituents in concentrations statistically greater than receiving water limits, where specified below, or background water quality where not specified. (For purposes of comparison, background water quality shall be determined when background monitoring provides sufficient data. Quality determined in this manner establishes "water quality protection standards").
2. Contain chemicals, heavy metals, or trace elements in concentrations that adversely affect beneficial uses or exceed maximum contaminant levels specified in the 22 CCR, Division 4, Chapter 15, Article 4, Section 64431.

3. Exceed a most probable number of total coliform organisms of 2.2/100 ml over any seven-day period.
4. Exceed concentrations of radionuclides specified in 22 CCR, Division 4, Chapter 15.
5. Contain taste or odor-producing substances in concentrations that cause nuisance or adversely affect beneficial uses.
6. Contain concentrations of chemical constituents in amounts that adversely affect agricultural use.
7. Exhibit a pH of less than 6.5 or greater than 8.5 pH units

E. Provisions

1. Notwithstanding the joint identification of Imperial Irrigation District and US Bureau of Reclamation as 'Discharger' in Finding No. A.2, above, the Regional Water Board staff may communicate directly with IID for purposes of day-to-day communication regarding compliance with terms of this Order. In this context, the IID shall be considered the party with primary responsibility for ensuring day-to-day compliance with this Order and the related regulatory matters. Correspondence and notifications between the Regional Board and IID shall be considered as if to or from all parties identified in Finding No. A.2 as 'Discharger.'
2. The Discharger shall comply with all conditions of this Board Order. Noncompliance constitutes a violation of the Porter-Cologne Water Quality Control Act, and is grounds for enforcement action, for Order termination, revocation and reissuance, or modification of Waste Discharge Requirements; or denial of an Order renewal application.
3. The Discharger shall comply with "Monitoring and Reporting Program No. R7-2008-0046", and future revisions thereto, as specified by the Regional Board's Executive Officer.
4. The discharge shall not cause degradation of any water supply, as required by State Water Board Resolution No. 68-16. Annual reports on calibration records of the flow meter shall be forwarded to the Regional Board.
5. By **September 30, 2008**, the Discharger shall submit a technical report in the form of a workplan to install a sufficient number of upgradient and downgradient groundwater wells as a part of a groundwater monitoring network to allow accurate characterization of groundwater quality, gradient, and direction of flow in the vicinity of the disposal ponds and at the point of compliance, the property boundaries of the WWTF. The workplan shall be subject to the prior approval of the Executive Officer and be prepared by a California registered civil engineer or registered engineering geologist with experience in this type of investigation. The workplan shall include, but not be limited to: (1) a sufficient number of upgradient and downgradient wells to monitor depth-specific aquifer zones, (2) a map showing the proposed location of the wells, and (3) the construction features of the proposed wells. Water samples shall be collected from the approved groundwater monitoring wells and analyzed monthly for one year to determine compliance with Groundwater Limitations, including standard minerals (total dissolved solids, calcium, chloride, fluoride, iron, magnesium, manganese, nitrate, potassium, sodium, sulfate, barium, total alkalinity, and hardness); total nitrogen, and pH.


6. Prior to any modifications in this facility which would result in material change in the quality or quantity of wastewater treated or discharged, or any material change in the location of discharge, the Discharger shall report all pertinent information in writing to the Regional Board and obtain revised requirements before any modifications are implemented.
7. Prior to any change in ownership or management of this operation, 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 Board.
8. The Discharger shall ensure that all site-operating personnel are familiar with the content of this Board Order, and shall maintain a copy of this Board Order at the site.
9. This Board Order does not authorize violation of any federal, state, or local laws or regulations.
10. This Board Order does not convey any property rights of any sort or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.
11. Facilities shall be available to keep the plant in operation in the event of commercial power failure.
12. The Discharger shall allow the Regional Board, or an authorized representative, upon presentation of credentials and other documents as may be required by law, to:
 - a. Enter upon the premises regulated by this Board Order, or the place where records must be kept under the conditions of this Board Order; and
 - b. Have access to and copy, at reasonable times, any records that shall be kept under the conditions of this Board Order; and
 - 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.
13. The Discharger shall, at all times, properly operate and maintain all systems and components of treatment and control, including, but not limited to, sludge use and disposal facilities which are installed or used by the Discharger to achieve compliance with the conditions of this Board Order. Proper operation and maintenance includes, but is not limited to, effective performance, adequate process controls, adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of this Board Order. All systems both in service and reserved, shall be inspected and maintained on a regular basis. Records shall be kept of the inspection results and maintenance performed and made available to the Regional Board upon demand.

14. The Discharger shall report any noncompliance that may endanger human health or the environment. Information shall be provided orally within 24 hours of when the Discharger becomes aware of the incident to the Regional Board office and the Office of Emergency Services. The Discharger shall also leave a message on the Regional Board office voice recorder during non-business hours. A written report shall also be provided within five 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 sewage spills in excess of 1,000 gallons occurring within the facility or collection system to the Regional Board office in accordance with the above time limits.
15. Adequate measures shall be taken to ensure that flood or surface drainage waters do not erode or otherwise render portions of the discharge facilities inoperable.
16. The Discharger's wastewater treatment plant shall be supervised and operated by persons possessing certification of appropriate grade pursuant to Section 3680, Chapter 4, Division 4, Title 23 of the California Code of Regulations.
17. The Discharger shall provide a report to the Regional Board when it determines that the plant is operating at 80 percent of the design capacity. The report shall 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.
18. 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 Regional 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 Regional Board.
19. The Discharger shall furnish, under penalty of perjury, technical monitoring program reports, and such reports shall be submitted in accordance with the specifications prepared by the Regional Board's Executive Officer. Such specifications are subject to periodic revisions as may be warranted.
20. The Discharger shall obtain prior written approval from the Regional Board specifying location and method of disposal, before disposing of Class B or lesser quality sludge, or similar solid waste materials. In addition, the Discharger shall provide the results of any sludge analyses as specified by the Regional Board's Executive Officer.
21. The Discharger shall allow the Regional Board's Executive Officer, or his/her authorized representative, to sample or monitor influent, effluent, and sludge for the purposes of determining compliance with this Board Order and other applicable requirements regarding sludge use and disposal.
22. 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.

23. Ponds shall have sufficient capacity to accommodate allowable wastewater flow, design seasonal precipitation, ancillary inflow, and infiltration during the non-irrigation season. Design seasonal precipitation shall be based on total annual precipitation using a return period of 100 years, distributed monthly in accordance with historical rainfall patterns.
24. Storm water discharges from the facility shall not cause or threaten to cause pollution or contamination.
25. 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.
26. The Discharger shall submit an annual report that gives the amount (in tons) and the method of all sludge disposals for the previous year. In addition, if the Discharger intends to dispose of pond sludge, then 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.
27. The Discharger shall provide adequate notice to the Regional Board's Executive Officer of the following:
 - a. Any new introduction of pollutants into any of the treatment facilities 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 it were directly discharging the pollutants.
 - b. Any substantial change in the volume or character of pollutants being introduced into any of the treatment facilities described in the Findings of this Board Order by an existing or new source.
 - c. Any planned physical alterations or additions to the facilities described in this Board Order, or changes 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.
 - d. 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 Board's Executive Officer, or if required by an applicable standard for sludge use and disposal.
28. 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 Monitoring and Reporting Program of this Board Order. The sludge that is stockpiled at the treatment facility shall be sampled and analyzed for those constituents listed in the sludge monitoring section of the Monitoring and Reporting Program of this Board Order and as required by Title 40, Code of Federal Regulations, Part 503. The results of the analyses should be submitted to the Regional Board as part of the Monitoring and Reporting Program.
29. Federal regulations for storm water discharges require specific categories of facilities which discharge storm water associated with industrial activity (storm water) to obtain National Pollutant Discharge Elimination System (NPDES) permits and to implement Best Conventional Pollutant Technology (BCT) and Best Available Technology Economically Achievable (BAT) to reduce or eliminate industrial storm water pollution.

30. In the event that there are storm water discharges associated with industrial activities, the Discharger shall submit a Notice of Intent and/or maintain coverage under the General Storm Water Permit.
31. This Board Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for a Board Order modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Board Order condition. Causes for modification include the promulgation of new regulations, modification of land application plans, or modification in sludge use or disposal practices, or adoption of new regulations by the State Board or the Regional Board, including revisions to the Basin Plan.

I, Robert E. 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 June 25, 2008.



ROBERT PERDUE
Executive Officer