

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

ORDER NO. R7-2002-0002

WASTE DISCHARGE REQUIREMENTS
FOR
UNITED STATES MARINE CORPS BASE, OWNER/OPERATOR
CAMP WILSON WASTEWATER TREATMENT PLANT
AND
WASTEWATER COLLECTION AND DISPOSAL SYSTEMS
Twentynine Palms – San Bernardino County

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

1. United States Marine Corps (hereinafter the discharger), Natural Resources and Environmental Affairs (NREA) Division, Marine Air Ground Task Force Training Command (MAGTFTC) Marine Corps Air Ground Combat Center (MCAGCC), Box 788110, Twentynine Palms, CA 92278-8110, submitted an application to revise its Waste Discharge Requirements (WDRs) for the Camp Wilson Wastewater Treatment Plant (WWTP), and wastewater collection and disposal systems. The WDRs are for the Camp Wilson WWTP and Wastewater Collection and Disposal systems.
2. The discharger owns a wastewater collection, treatment and disposal system (hereinafter referred to as the facility) and provides sewerage service to Camp Wilson and the Expeditionary Air Field located at the MCAGCC. The discharger proposes to construct a new secondary treatment package plant (package plant) to replace the existing oxidation pond system. The package plant will provide the needed treatment capacity for the existing service area.
3. The existing oxidation pond system facility is located approximately nine (9) miles northwest of the main camp and is situated within the boundaries of the MCAGCC, in SW ¼ of Section 28, T3N, R8E, SBB&M. The oxidation pond system has a design treatment capacity of 0.12 million gallons-per-day (MGD) and presently discharges approximately 0.12 MGD of domestic wastewater into two (2) oxidation ponds, which overflow into a basin for final disposal by evaporation and infiltration.
4. The package plant is located in the treatment plant site area, 1/8 mile southwest of the existing oxidation pond in portions of the SE ¼ of Section 28 and NE ¼ of Section 33, T3N, R8E, SBB&M. The package plant is designed to handle average daily flows of 0.180 MGD and peak daily flows of 0.205 MGD.
5. The package plant contains three (3) treatment modules; each module has a primary clarifier, anaerobic reactor cell, aerobic reactor cell, and final clarifier. The package plant will provide preliminary treatment, primary treatment, secondary treatment, solids handling, and disposal systems as follows:
 - a. Preliminary Treatment. Untreated wastewater flows to the preliminary treatment system, which consists of a macerator, and a flow bypass chamber. These process units are designed to breakup floating debris, and oil and grease. In the event that the package plant is not operational and no treatment can be provided, the influent will be bypassed to the existing oxidation pond system.

- b. Primary Treatment. Wastewater from the preliminary treatment system is pumped to one (1) or up to three (3) primary clarifiers for primary (physical) treatment. These process units are designed to remove the floating and settleable solids.
 - c. Secondary Treatment (each module). Effluent gravity flows from the primary clarifier to anaerobic cell and then to the aerobic cell for secondary (biological) treatment. The effluent from the aerobic cell gravity flows to a secondary clarifier for removal of floating and settleable solids.
 - d. Effluent Disposal. The effluent from the secondary clarifiers gravity flows through a parshall flume and then to the existing infiltration/evaporative ponds for final disposal.
 - e. Solids Handling and Disposal. Primary sludge and scum and secondary sludge is pumped from the primary and secondary clarifiers to one (1) of the two (2) solids holding tanks for periodic offsite disposal. In addition, sludge from the existing oxidation pond system will be dredged from time to time to remove the settled solids.
6. A draft Hydrogeologic Study submitted by the discharger, received July 25, 2001, presented the following conclusions.
 - a. A relatively low permeability clayey and silty soil is present beneath the bottom existing oxidation ponds and basin. This fine grain soil ranges between three (3) and 12 feet in thickness, between five (5) and 23 feet below ground surface. Based on the data collected during this investigation, this fine grain soil appears continuous beneath the ponds and basin within the existing treatment site.
 - b. The clay and silts underlying the existing ponds and basin have measured permeabilities ranging from between 9.53×10^{-10} and 1.6×10^{-6} cm/sec. The rate of wastewater flow through these upper clayey materials has been calculated to range from approximately 0.03 to 41 cm/year, or 0.01 to 16 inches per year.
 - c. A fine sand overlies most if not all of the clay underlying the ponds. Wet sands and saturated clays were encountered beneath the eastern corner of the ponds. Based on the presence of these wet and saturated soils, the underlying clays do not appear to confine the water within the oxidation ponds. The water from the ponds appears to flow through the sands and then pond on the underlying clays.
 - d. Groundwater was encountered during this investigation between 20 and 22 feet below ground surface. This groundwater is considered likely the upper surface of the main aquifer of the Deadman Lake Sub-basin.
7. United States Geologic Survey Report 98-167 contains findings that the groundwater quality of the Deadman Lake sub basin is of poor quality with total dissolved solids ranging from 683 to 1,040 mg/L and fluoride concentrations of 1.5 to 4.5 mg/L.
8. There are no domestic wells within 500 feet of the wastewater treatment plant described in Finding No. 2, above.
9. This discharge has been subject to WDRs adopted in Board Order No. 93-031.
10. The Water Quality Control Plan for the Colorado River Basin Region of California (Basin Plan) was adopted on November 17, 1993, and designates the beneficial uses of ground and surface waters in this Region.

11. The beneficial uses of ground waters in the Dale Hydrologic Unit are:
 - a. Municipal supply (MUN)
 - b. Industrial supply (IND)
 - c. Agricultural supply (AGR)
12. Federal regulations for storm water discharges were promulgated by the United States Environmental Protection Agency (USEPA) (40 CFR Parts 122, 123, and 124). The regulations require specific categories of facilities which discharge storm water associated with industrial activity to obtain National Pollutant Discharge Elimination System (NPDES) permits and to implement Best Conventional Pollutant Technology (BCT) to reduce or eliminate industrial storm water pollution.
13. The discharger as the lead agency for National Environmental Policy Act (NEPA) states in the submitted ROWD that the project is exempt from NEPA and falls under Categorical Exclusion 32CFR 775.6(f)(7).
14. The Class 2 categorical exemption under the California Environmental Quality Act (CEQA) exempts activities that include replacement or reconstruction of existing structures or facilities on the same site having substantially the same purpose and capacity. (Section 15302 of Division 6, Title 14 of the California Code of Regulations (CEQA guidelines).) Section 15302(c) exempts replacement or reconstruction of existing utility systems and/or facilities involving negligible or no expansion of capacity. The Regional Board, as lead agency under CEQA, finds that the project is exempt from CEQA under Section 15302 of the CEQA guidelines.
15. The State Water Resources Control Board (SWRCB) adopted Order No. 97-03-DWQ (General Permit No. CAS000001), 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.
16. The Board has notified the discharger and all known interested agencies and persons of its intent to update waste discharge requirements for this discharge and has provided them with an opportunity for a public meeting and an opportunity to submit comments.
17. The Board in a public meeting heard and considered all comments pertaining to this discharge.

IT IS HEREBY ORDERED, that Board Order No. 93-031 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 effluent discharged from treatment plant shall not contain constituents in excess of the following limits:

<u>Constituent</u>	<u>Unit</u>	<u>30-Day Arithmetic Mean Discharge Rate</u> ¹	<u>7-Day Arithmetic Mean Discharge Rate</u> ²
20° C BOD ₅ ³	mg/L ⁴	45	65
Total Suspended Solids	mg/L	95	

2. The 30-day average daily dry weather discharge flow shall not exceed 0.205 MGD.
3. The effluent discharge values for pH shall not be below 6.0 or above 9.0.
4. The concentration of total dissolved solids (TDS) in the wastewater discharged to the treatment basins shall not exceed 650 mg/L. If this TDS limitation is exceeded, the discharger shall develop and implement appropriate mitigation measures, which are acceptable to the Regional Board's Executive Officer.

B. Prohibitions

1. The direct discharge of any wastewater from the facility to any surface waters or surface drainage courses is prohibited.
2. Spill, discharge or overflow of untreated or partially treated waste is prohibited.
3. Discharge of treated wastewater at a location or in a manner different from that described in Finding Nos. 3, 4 and 5, above, is prohibited. This prohibition does not limit the flexibility in discharging different percentages of treated wastewater.
4. The discharger shall not accept waste in excess of the design treatment capacity of the disposal system.

C. Specifications

1. Both treated and untreated wastewater shall be prevented from entering surface water bodies.
2. The treatment or disposal of wastes from the facility shall not cause pollution or nuisance as defined in Section 13050 of Division 7 of the California Water Code.
3. A minimum depth of freeboard of two (2) feet shall be maintained at all times in facultative ponds and evaporative/storage basins.
4. Public contact with non-disinfected wastewater shall be precluded through such means as fences, signs, and other acceptable alternatives. The non-disinfected wastewater is not approved for off-site distribution. 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 "Non-disinfected wastewater - No body contact or drinking" wording shall be displayed as well as the international warning symbol.

¹ 30 Day Mean-The arithmetic mean of pollutant parameter values of samples collected in a period of 30 consecutive days as specified in the Monitoring and Reporting Program.

² 7 Day Mean-The arithmetic mean of pollutant parameter values of samples collected in a period of 7 consecutive days as specified in the Monitoring and Reporting Program.

³ BOD₅ - Biochemical Oxygen Demand

⁴ mg/L - milligrams per Liter

5. The discharge shall not cause degradation of any water supply.
6. Objectionable odors originating at this facility shall not be perceivable beyond the limits of the wastewater treatment and disposal area.
7. The oxidation basins and evaporative/storage basins shall be maintained so they will be kept in aerobic conditions.
8. As a means of discerning compliance with Discharge Specifications No. 6 and No. 7 for discharge to wastewater treatment ponds, the dissolved oxygen content in the upper zone (one (1) foot) of evaporative/storage basins shall not be less than 1.0 mg/L.
9. Treated or untreated sludge or similar solid waste materials shall be disposed at locations approved by the Regional Board's Executive Officer.

D. Provisions

1. The discharger shall comply with Monitoring and Reporting Program No. R7-2002-0002, and future revisions thereto, as specified by the Regional Board's Executive Officer.
2. 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.
3. 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.
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. Facilities shall be available to keep the plant in operation in the event of commercial power failure.
7. The discharger's wastewater treatment plant 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. The discharger shall ensure that all operating personnel are familiar with the contents of this Board Order.
8. The discharger shall comply with all of the conditions of this Board Order. Any noncompliance with this Board Order constitutes a violation of the Porter-Cologne Water Quality Control Act and is grounds for enforcement action.
9. The discharger shall, at all times, properly operate and maintain all systems and components of collection, treatment and control which are installed or used by the discharger to achieve compliance with the conditions of 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 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.

10. 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 (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 sewage spills in excess of one thousand (1,000) gallons occurring within the facility or collection system to the Regional Board office in accordance with the above time limits.
11. 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;
 - b. Have access to and copy, at reasonable times, any records that shall be 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.
12. 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:
 1. The date, exact place, and time of sampling or measurements.
 2. The individual(s) who performed the sampling or measurements.
 3. The date(s) analyses were performed.
 4. The individual(s) who performed the analyses.
 5. The results of such analyses.

13. Unless otherwise approved by the Regional Board's Executive Officer, all analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services. All analyses shall be conducted in accordance with the latest edition of "Guidelines Establishing Test Procedures for Analysis of Pollutants", promulgated by the USEPA.
14. The discharger shall provide a report to the Regional Board when it determines that the plant's average dry-weather flow rate for any month exceeds 80 percent of the design capacity as specified in Findings No. 4 above. 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.
15. 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.
16. The discharger shall provide adequate notice to the Regional Board's Executive Officer of the following:
 - a. 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.
 - b. 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.
17. 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
18. 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.
19. 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.
20. 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.
21. Ponds shall be managed to prevent breeding of mosquitoes. In particular,
 - a. An erosion control program should assure that small coves and irregularities are not created around the perimeter of the water surface.

- b. Weeds shall be minimized through control of water depth, harvesting, or herbicides.
 - c. Dead algae, vegetation, and debris shall not accumulate on the water surface.
22. Storm water discharges from the facility shall not cause or threaten to cause pollution or contamination.
 23. 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.
 24. The discharger shall obtain prior written approval from the Regional Board specifying location and method of disposal, before disposing of treated or untreated sludge, or similar solid waste materials using a method not described in Finding No. 5. In addition, if the discharger intends to dispose of sludge using a method not described in Finding No. 5, 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.
 25. 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.
 26. This Board Order may be modified, rescinded and reissued, for cause. The filing of a request by the discharger for a Board Order modification, rescission and reissuance, 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, Philip A. Gruenberg, 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 March 13, 2002.

Executive Officer