

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

ORDER NO. R7-2002-0006

WASTE DISCHARGE REQUIREMENTS  
FOR  
UNITED STATES MARINE CORPS BASE, OWNER/OPERATOR  
MAINSIDE 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 referred to as 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 update its Waste Discharge Requirements (WDRs) for the Mainside Wastewater Treatment Plant (WWTP) and Wastewater Collection and Disposal Systems. The WDRs are for the Mainside Wastewater Treatment Plant 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 the main camp area. The WWTP is located at the MCAGCC, Twentynine Palms, California, and has a design secondary treatment capacity of 2.5 million gallons-per-day (MGD) and presently discharges approximately 0.833 MGD of disinfected secondary-23 (as defined in Title 22 California Code of Regulations Section 60301.225) treated recycled water for golf course irrigation and 0.330 MGD of secondary effluent into four (4) evaporation basins. The golf course is located in NW ¼ of Section 19, T2N, R9E, and SBB&M. The evaporation basins are located in NW ¼ of Section 29, T2N, R9E, SBB&M.
3. The WWTP consists of preliminary treatment, primary treatment, secondary treatment, tertiary treatment, solids handling, and disinfection and disposal systems.
  - a. Preliminary Treatment. Untreated wastewater flows to the preliminary treatment system, which consists of a comminutor, aerated grit chamber, and a flow bypass chamber. These process units are designed to remove grit, floating debris, and oil and grease.
  - b. Primary Treatment. Wastewater from the preliminary treatment system gravity flows to two (2) primary clarifiers for primary (physical) treatment. These process units are to remove the floating and settleable solids.
  - c. Secondary Treatment. Effluent gravity flows from the primary clarifiers to the facultative oxidation ponds (three (3) ponds in series) for secondary (biological) treatment. The effluent from the facultative oxidation ponds flows into a system of four (4) large storage basins (A through D) for additional biological stabilization before reuse or loss through evaporation. The four (4) storage basins are connected in series. Two (2) other storage basins (G and H) are not used for secondary treatment. Effluent discharged from the storage basin for reuse is treated with chemicals (sodium hypochlorite and poly-aluminum chloride solutions are injected into the effluent stream to assist in chemical coagulation and clarification) and gravity flows to a secondary clarifier (algae harvester) for removal of

algae and other settleable solids. In the event that the algae harvester is being repaired or cleaned, the lamella plate separators shall be used for removal of algae and other settleable solids.

- d. Tertiary Treatment. Effluent from the secondary clarifier can be pumped into the tertiary treatment system for advanced treatment (filtration) or to portions of the tertiary treatment system. The tertiary system has a design treatment capacity of 1.25 MGD and consists of a rapid mix chamber (coagulation and flocculation), two (2) lamella plate separators (clarifier), traveling bridge filter (filtration), chlorination system (disinfection) and a covered one (1) million gallon (1-MG) storage reservoir. Presently the traveling bridge filter is not in use and out of service. The current operation is pumping effluent from the secondary clarifier to the rapid mix chamber, where additional poly-aluminum chloride solution is added to enhance coagulation. Effluent from the rapid mix chamber gravity flows to the lamella plate separator to remove the coagulated and flocculated matter and then gravity flows to a pump station.
  - e. Disinfection. The discharge of secondary or tertiary effluent from the pump station is injected with chlorine solution for disinfection and is pumped into the 1-MG storage tank for needed chlorine contact time and irrigation storage.
  - f. Offsite Irrigation Disposal. The effluent from the 1-MG storage tank is pumped to an offsite open reservoir, Ocotillo Heights Pond, or an 0.75 MG storage tank located near the golf course. The effluent in Ocotillo Heights Pond is conveyed to a filtration system, which is used to filter out the suspended algae before chlorination and pumping for golf course irrigation reuse. Disinfected secondary-23 treated water has been approved by the Department of Health Services for use as irrigation on this golf course.
  - g. Solids Handling and Disposal. Primary sludge and scum from the two (2) primary clarifiers is pumped to the anaerobic digester for further treatment. Secondary sludge (algae) from the secondary clarifiers is pumped to Storage Basin G. Sludge wasting from the digester is pumped to one (1) of four (4) sludge-drying beds. The biosolids are hauled to the MAGTFTC MCAGCC Class III landfill, which is authorized to accept treated or untreated sludge. Spent backwash water from the traveling bridge filter gravity flows back to a pump station and is pumped to the headworks (preliminary treatment).
4. A Hydrogeologic Study submitted by the discharger, dated February 2001, presented the following conclusions.
- a. A thick impermeable clayey soil underlies the bottom surface of the treatment plant ponds. This clayey soil is greater than 25 feet in thickness and continuous beneath the ponds within the treatment plant.
  - b. The clay underlying the treatment ponds has measured permeabilities ranging from between  $8.2 \times 10^{-10}$  and  $8.77 \times 10^{-8}$  cm/sec. The rate of wastewater flow through these upper clayey materials has been calculated to range from approximately 0.026 to 2.5 cm/year, or 0.01 to one (1) inch per year.
  - c. Based on the data collected from this and previous investigations, the clay layer underlying the treatment plant is an extremely effective barrier against the migration of wastewater from the ponds and into the aquifer underlying the treatment plant.
  - d. There is no evidence collected during this or past investigations that suggests that wastewater from the treatment ponds has migrated, or has the potential to migrate through the clayey soils underlying the ponds.

- e. Clayey soil layers separated by silts, silty fine sands, and fine sands are present between 25 and one hundred (100) feet below ground surface (bgs). The clays within these deeper layers have measured permeabilities ranging from  $9.61 \times 10^{-10}$  to  $3.51 \times 10^{-9}$ . These clayey layers would assist in reducing potential wastewater migration from the surface and into the underlying aquifer. Note, however, that it is not known if these lower clays are laterally continuous beneath the ponds.
  - f. The main aquifer underlying the treatment plant is reportedly located at approximately 215 feet bgs. Two (2) perched aquifers were reported in a well (MS-1) adjacent to the ponds at 75 and 188 feet bgs. Indications of the perched aquifer at 75 feet were not encountered during the consultant's field investigation. Based on data collected during this investigation, the perched groundwater at 188 bgs is the closest groundwater located beneath the treatment ponds.
  - g. In case of disruption, such as from faulting or fault creep, the clay underlying the treatment plant would be self-healing. Faulting of the underlying clay would not likely jeopardize its effectiveness in preventing the downward mitigation of wastewater.
5. A United States Geological Survey for Mesquite and Mainside Sub-basin, which underlies the facility, notes total dissolved solids concentrations ranging from 900 to 15,926 mg/L.
  6. There are no domestic wells within 500 feet of the WWTP described in Finding No. 2, above.
  7. This discharge has been subject to WDRs adopted in Board Order No. 93-032.
  8. 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.
  9. The beneficial uses of ground waters in the Dale Hydrologic Unit are:
    - a. Municipal supply (MUN)
    - b. Industrial supply (IND)
    - c. Agricultural supply (AGR)
  10. The State Department of Health Services has established statewide reclamation criteria in Title 22, California Code of Regulations, Section 60301, et. seq. (hereinafter Title 22) for the use of recycled water and has developed guidelines for specific uses.
  11. Recycled water used for surface irrigation of the following shall be at least disinfected secondary-23 recycled water:
    - a. Cemeteries,
    - b. Freeway landscaping,
    - c. Restricted access golf courses,
    - d. Ornamental nursery stock and sod farms where access by the general public is not restricted,
    - e. Pasture for animals producing milk for human consumption, and

- f. Any nonedible vegetation where access is controlled so that the irrigated area cannot be used as if it were part of a park, playground or schoolyard.
12. Recycled water used for surface irrigation of the following shall be a disinfected tertiary recycled water, except that for filtration pursuant to Section 60301.320 (a) coagulation need not be used as part of the treatment process provided that the filter effluent turbidity does not exceed 2 NTU, the turbidity of the influent to the filters is continuously measured, the influent turbidity does not exceed 5 NTU for more than 15 minutes and never exceeds 10 NTU, and that there is the capability to automatically activate chemical addition or divert the wastewater should the filter influent turbidity exceed 5 NTU for more than 15 minutes:
  - a. Food crops, including all edible root crops, where the recycled water comes into contact with the edible portion of the crop,
  - b. Parks and playgrounds,
  - c. School yards,
  - d. Residential landscaping,
  - e. Unrestricted access golf courses, and
  - f. Any other irrigation use not specified in Section 60304 and not prohibited by other sections of the California Code of Regulations.
13. In a letter dated September 22, 2000, from the State Department of Health Services, it approved the use of secondary –23 treated and disinfected recycled water from the treatment plant for restricted access landscape irrigation of the MCAGCC golf course.
14. In a letter dated January 23, 2001, from the State Department of Health Services, the use of tertiary treated recycled water is contingent upon approval of an Engineering Report (to be submitted by discharger to the Department of Health Services) and optimization of the tertiary treatment system to meet Title 22 criteria.
15. Federal regulations for storm water discharges 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) and Best Available Technology Achievable (BAT) to reduce or eliminate industrial storm water pollution.
16. The State Water Resources Control Board (State Board) adopted Order No. 97-03-DWQ (General Permit No. CAS000001), specifying WDRs 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.
17. The Board has 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.
18. The Board in a public meeting heard and considered all comments pertaining to this discharge.

19. In accordance with Section 15301, Chapter 3, Title 14 of the California Code of Regulations, the issuance of these WDRs, which govern the operation of an existing facility involving negligible or no expansion of use beyond that previously existing, is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000 et seq.)

IT IS HEREBY ORDERED, that Board Order No. 93-032 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> <sup>1</sup> | <u>7-Day Arithmetic Mean Discharge Rate</u> <sup>2</sup> |
|-------------------------------------|-------------------|---|--|
| 20° C BOD <sub>5</sub> <sup>3</sup> | mg/L <sup>4</sup> | 45  | 65   |
| Total Suspended Solids              | mg/L              | 95  |  |

2. The 30-day monthly average daily dry weather influent flow shall not exceed 2.50 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 percolation ponds shall not exceed 900 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. Overflow, discharge or spill 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. 2 and 3, 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.

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<sup>1</sup> 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.

<sup>2</sup> 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.

<sup>3</sup> BOD<sub>5</sub> - Biochemical Oxygen Demand

<sup>4</sup> mg/L - milligrams per Liter

### 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.
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 foot) of evaporative/storage basins shall not be less than 1.0 mg/L.
9. On-site wastes, including windblown spray from recycled water application, shall be strictly confined to the lands specifically designated for the disposal operation, and on-site irrigation practices shall be managed so there is no runoff of effluent from irrigated areas.
10. Disinfected secondary-23 recycled water directly reused shall conform to the following:
  - a. The recycled water shall meet the secondary treatment standards for suspended solids and biochemical oxygen demand listed in the discharge specifications.
  - b. The median concentration of total coliform bacteria in the disinfected effluent shall not exceed a most probable number (MPN) of 23 per 100 milliliters utilizing the bacteriological results of the last seven (7) days for which analyses have been completed, and the number of total coliform bacteria does not exceed an MPN of 240 per 100 milliliters in more than one (1) sample in any 30 day period.
11. Disinfected tertiary treated recycled water directly reused shall conform to the following:
  - a. The filtered wastewater has been disinfected by either:
    1. A chlorine disinfection process following filtration that provides a CT (the product of total chlorine residual and modal contact time measured at the same point) value of not less than 450 milligrams-minute per liter at all times with a modal contact time of at least 90 minutes, based on peak dry weather design flow; or

2. A disinfection process that, when combined with the filtration process, has been demonstrated to inactivate and/or remove 99.999 percent of the plaque-forming units of F-specific bacteriophage MS2, or polio virus in the wastewater. A virus that is at least as resistant to disinfection as poliovirus may be used for purposes of demonstration.
  - b. The median concentration of total coliform bacteria measured in the disinfected effluent does not exceed an MPN of 2.2 per 100 milliliters utilizing the bacteriological results of the last seven (7) days for which analyses have been completed and the number of total coliform bacteria does not exceed an MPN of 23 per 100 milliliters in more than one (1) sample in any 30 day period. No sample shall exceed an MPN of 240 total coliform bacteria per 100 milliliters.
  - c. The discharger shall not deliver recycled water for reuse to those users whom, by reason of their operational practices; cause nuisances associated with wastewater or otherwise contribute to the violation of the requirements of this Board Order.
12. The storage, delivery, or use of recycled water shall not individually or collectively, directly or indirectly, result in pollution, or adversely affect water quality, as defined in the California Water Code.
13. The delivery or use of recycled water shall be in conformance with the reclamation criteria contained Title 22, or amendments thereto, for the irrigation of food crops, irrigation of fodder, fiber, and seed crops, landscape irrigation, supply of recreational impoundments and ground water recharge.
14. Prior to delivering recycled water to any new user, the discharger shall submit to the Regional Board a report discussing any new distribution system being constructed by the discharger to provide service to the new user.
15. Recycled water shall not be delivered to any new user who has not first received a discharge permit from the Regional Board and approval from the State Department of Health Services.

#### D. Provisions

1. The discharger shall comply with Monitoring and Reporting Program No. R7-2002-0006, 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. Personnel must be informed that recycled water is meant for irrigation and landscaping purposes only, and is not approved for drinking, hand washing, etc. Personnel must also be informed of the locations of domestic and recycled water lines to ensure that the potable and recycled systems are not interconnected.

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 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. 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 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 United States Environmental Protection Agency.
14. The discharger shall provide the following information regarding off-site use of disinfected secondary-23 or disinfected tertiary recycled water:
  - a. Name and location of the golf courses/landscape areas being irrigated.
  - b. Quantity and quality of the recycled water provided to individual customers.
  - c. The discharger shall immediately notify the Regional Board's Executive Officer of any changes regarding Items a, and b, above.
15. 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 specified in Findings No. 2 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.
16. The discharger is the responsible party for the WDRs and the monitoring and reporting program for the facility. The discharger shall comply with all conditions of these WDRs. 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 WDRs by the Regional Board.
17. 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.
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 Board's 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. 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.
  21. 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.
  22. 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.
  23. Storm water discharges from the facility shall not cause or threaten to cause pollution or contamination.
  24. 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.
  25. The discharger shall provide a plan as to the method, treatment, handling and disposal of sludge that is consistent with all State and Federal laws and regulations and obtain prior written approval from the 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. 3.
  26. The discharger shall maintain a permanent log of all solids hauled away from the treatment facility for use/disposal elsewhere and shall provide a summary of the volume, type (screenings, grit, raw sludge, digested sludge), use (agricultural, composting, etc.), and the destination in accordance with the 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.

27. The discharger shall designate an on-site supervisor responsible for operation of the recycled water system. The supervisor shall be responsible for the installation, operation and maintenance of the irrigation system, prevention of potential hazards, maintenance of the distribution system plans in "as-built" form, and for the distribution of the recycled water. The name of the on-site supervisor shall be listed on the monthly monitoring report.
28. 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.

#### E. Health Based Provisions

1. There shall be no-cross connection between potable water supply and piping containing recycled water. Supplementing recycled water will water used for domestic supply shall not be allowed except with an air-gap separation. An air-gap or reduced pressure principle device shall be provided at all domestic water service connections to recycled water use areas.
2. The discharger shall provide documentation to ensure that there is no interconnection between the potable and recycled water systems. Dischargers with both potable and irrigation water delivered to the site shall ensure that a cross-connection test is completed prior to delivery of recycled water to the site. A cross-connection control test, mutually agreeable to the permittee and DHS shall be conducted at least once every four (4) years. Existing users shall conduct a cross-connection test within a time frame acceptable to DHS. The tests shall be conducted by an American Waterworks Association (AWWA) certified cross-connection control program specialist or equivalent. Prior to conducting the test the user shall notify the DHS and County Department of Health Services. Results of the cross-connection test shall be submitted to the Regional Board, DHS and County Department of Health Services within 30 days of completion.
3. The user shall submit the "as built" plans and specifications showing the domestic and irrigation systems, the location of all potable and recycled water connections, and locations of all on-site and nearby wells to DHS. These plans shall be submitted within a time frame acceptable to DHS. Within 30 days of the issuance of this permit, existing facilities without "as built" plans shall contact DHS for guidance.
4. Adequate measures shall be taken to minimize public contact with recycled water. Clearly visible, adequately sized warning signs shall be posted in sufficient numbers around the application and storage areas. The size and number of warning signs shall be mutually determined by the discharger and DHS.
5. Prior to construction of new facilities planning to discharge recycled water, the discharger shall submit the design drawings to the DHS, field operations branch, for approval. The discharger shall, at a maximum, allow the State Department of Health Services a 30-day comment period for completed designs submitted. If comments are not received by the discharger from the State Department of Health Services within that 30-day period, then no response will be deemed as "no comment" and the discharger will be able to begin construction.
6. Golf course pump houses utilizing recycled water shall be appropriately tagged with warning signs with proper wording of sufficient size to warn the public that recycled water is not safe for drinking. All new and replacement at grade valve boxes shall be purple or appropriately tagged for water reuse purposes.

7. The use of recycled water shall be in conformance with the reclamation criteria contained in Title 22 of the California Code of Regulations, or amendments thereto.
8. Recycled water shall not be applied in a manner or at a location where it could come in contact with drinking water fountains, food handling, food storage or dining areas.
9. There shall be at least a 4-foot horizontal and 1-foot vertical separation (with domestic water above the recycled water pipeline) between all newly installed constant pressure pipelines transporting domestic water and those transporting recycled water. All newly installed recycled water distribution lines shall be colored purple or labeled with purple tape. Existing pipelines are excluded from this requirement.
10. Irrigated areas shall be properly managed to minimize ponding.
11. Recycled water shall not be used as domestic supply water or intentionally used as animal water supply.

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.

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Executive Officer