CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

BOARD ORDER R7-2016-0032

WASTE DISCHARGE REQUIREMENTS
FOR UNITED STATES MARINE CORPS, OWNER/OPERATOR
MAINSIDE WASTEWATER TREATMENT FACILITY
Twentynine Palms – San Bernardino County

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

1. The United States Marine Corps (USMC), Natural Resources and Environmental Affairs (NREA) Division, Marine Air Ground Task Force Training Command (MAGTFTC), Marine Corps Air Ground Combat Center (MCAGCC or Discharger), P.O. Box 788110, Twentynine Palms, CA 92278-8110, submitted a draft application and Report of Waste Discharge (ROWD) to update its Waste Discharge Requirements (WDRs) for the Mainside Wastewater Treatment Facility (WWTF or Facility) on February 19, 2016. In subsequent communications, Colorado River Basin Water Board staff requested that a complete ROWD be submitted. On June 20, 2016, the Discharger submitted a complete ROWD, identifying modifications made at the WWTF since 2012.

2. The Discharger owns a wastewater collection, treatment and disposal system and provides sewerage service to the Main Camp area, Camp Wilson area and the Expeditionary Air Field located at the MCAGCC. The WWTF, located at the MCAGCC, Twentynine Palms, California, on Del Valle Drive, presently treats approximately 0.742 million gallons per day (MGD) of domestic wastewater. Approximately 0.558 MGD of disinfected secondary-23 treated recycled water (as defined in the California Code of Regulations, Title 22, Section 60301.225) is used for golf course irrigation. The balance of about 0.184 MGD of secondary treated effluent is evaporated, and to a lesser degree infiltrated. The WWTF is located in the northwest ¼ of Section 29, Township 2 North, Range 9 East, San Bernardino Baseline and Meridian. The golf course is located in the northwest ¼ of Section 19, Township 2 North, Range 9 East, San Bernardino Baseline and Meridian.

3. The WWTF has a treatment capacity of 1.75 MGD and can discharge up to 2.5 MGD of secondary-23 disinfected recycled water for golf course irrigation and up to 1.0 MGD of tertiary treated disinfected recycled water from the WWTF.

4. The WDRs are being updated due to plant operation modifications made by the Discharger. The WWTF has been modified so that the tertiary treatment sand filter is no longer part of the treatment process and tertiary treated wastewater can no longer be produced. The tertiary treatment sand filter has not been used in approximately eight years and cannot be operated without significant rehabilitation. Additionally, the engineered wetlands described as part of the treatment process have been removed from operation and are no longer part of the treatment process. The Discharger intends to use one of the de-commissioned wetland basins as a sludge drying basin.

5. The Facility and reuse of its disinfected secondary-23 treated recycled water are currently regulated by Board Order R7-2012-0002, adopted by Colorado River Basin Water Board on June 21, 2012.

6. MCAGCC is located in south-central San Bernardino County, approximately five (5) miles north of the City of Twentynine Palms as shown on Attachment A, Location and Vicinity Map, incorporated herein and made part of this Board Order by reference.

7. The Facility is assigned California Integrated Water Quality System (CIWQS) number CW-269589; Waste Discharger Identification (WDID) number 7A360702011, and GeoTracker Global ID number WDR100037408. Attachment B, incorporated herein and made part of this Board Order by reference, illustrates the WWTF site layout.

Wastewater Treatment Facility and Discharge

8. Wastewater influent enters the plant headworks building via a 20-inch sanitary sewer. The wastewater flow is split into two channels, one for bypass (normally closed) and the other with an automatic bar screen and compactor. The bar screen deposits the screenings into a roll-off dumpster that is taken to the Combat Center Landfill for disposal regularly. Wastewater then flows through a 24-inch Palmer Bowlus flume for flow measurement. A flow meter display is housed outside the headworks building in a steel cabinet. The headworks building has an active ventilation system that replaces the air in the room several times an hour and pushes the air through a biological air filter for odor removal. The odor filter consists of wood chips that are kept moist with recycled water.

9. From the flow meter, wastewater is routed to Pond 1. Pond 1 is a 13-acre, 5-foot deep pond, with a 2.5-acre front-end, 13-foot deep fermentation pit that has a designed hydraulic residence time of over 3 days. Wastewater enters the pond at the end with the fermentation pit. Solids settle out in the fermentation pit and the wastewater continues to flow through the rest of the pond. The fermentation pit allows for the accumulation and storage of biosolids in an anaerobic environment. Anaerobic bacteria decompose and stabilize the biosolids and release methane, hydrogen sulfide, and other volatile organics. Digestion gases are broken down in the aerobic water layer at the top of the pond where oxygen concentration is enhanced by mechanical aeration.

10. Wastewater from the fermentation pit is spread across the width of Pond 1 via a flow distribution pipe and then flows longitudinally through the pond. Four mechanical aerators provide oxygen to the top layer of the pond. The remainder of Pond 1 outside the fermentation pit provides secondary biological treatment. The pond is designed to remove approximately 75 percent of the influent Biochemical Oxygen Demand (BOD) by rapid growth of algae and concurrent production of oxygen, oxidation of organics, ammonia removal, and heavy metals removal. The other ponds provide extended secondary treatment and act as effluent polishing systems.

11. Effluent from Pond 1 is channeled to Pond A through a flow control structure that controls the water level in Pond 1. The flow control structure has a permanent weir that controls the water level in Pond 1 such that 2 feet of freeboard is maintained. Under normal operating conditions, effluent flows over the weir to Pond A. Slide gates located within this structure allow operators to temporarily divert some or all of the flow to Pond B for storage. In the event of excessively high water levels at Ponds 1 and A, an overflow also channels water to Pond B.

12. Pond A is approximately 5 feet deep with a surface area of approximately 20 acres. The design detention time is approximately 18 days. Pond A (and Pond B when used) provides only limited treatment; its primary purpose is settlement of algae. When there is

a need to store more water than Ponds 1, A, and B can accommodate, water can be pumped to Ponds C and D. Ponds C and D are used as additional storage when wastewater influent exceeds recycled water demand. The water from these ponds is pumped back to Pond A for inclusion in the treatment process.

13. Effluent from Pond A is sent to the clarifier influent pump station wet well via a 20-inch sewer line. The clarifier influent pumps then supply the water to three clarifiers. All three clarifiers are connected and can be run individually or in parallel. Polyaluminum chloride (PAC) is added as a coagulant at the clarifiers. The sludge from the clarifiers is withdrawn using three sludge pumps and sent back to the fermentation pit in Pond 1 for digestion and treatment. The clarifier effluent is pumped by three filter influent pumps through the (non-operational) Lamella filters into the filter effluent pump Station wet well.

14. Chlorine is generated on-site by a hypochlorite generation and injection system that produces the chlorine equivalent of 150 pounds per day of 0.8-percent sodium hypochlorite (NaClO). The 0.8-percent NaClO is stored on-site in a 380-gallon polyethylene storage tank. Chlorine is added to the water prior to entering the 1-million-gallon (MG) onsite reservoir. The chlorine dosage can be manually set by the Operator. Disinfected secondary-23 treated wastewater from the reservoir is pumped to the golf course ponds as needed via the secondary effluent pump station, and is stored in two open ponds with a 10 million gallon (MG) total capacity, then used for golf course irrigation. Attachment C, incorporated herein and made part of this Order by reference, illustrates a schematic flow diagram of the WWTF.

15. The WWTF ponds are designed with the following characteristics:

	Fermentation Pit	**Integrated Pond System (Pond 1)**	**Oxidation Pond A**
Function	Primary Treatment	Primary/Secondary Treatment	Secondary Treatment
Surface Area (acres)	2.5	13.1	19.8
Typical Depth (ft)	13	5	5
Volume (MG)	5.7	20.3	31.2
Detention Time (days)	3.25	11.6	17.81
Interior Slope (H ft : V ft)	3:1	3:1	3:1
Berm Materials	Earthen	Earthen/ Concrete	Earthen/ Concrete

16. The WWTF is designed for the following parameters:

Design Average Daily Flow	1.75 MGD

Design Peak Daily Flow	3.0 MGD
Influent 20° C BOD_5[1]	275 mg/L[2]
Influent TSS[3]	200 mg/L

17. The Discharger's Self-Monitoring Reports (SMR) from June 2011 through May 2016 characterize the WWTF influent as follows:

Constituent	Units	Average	Maximum	Minimum
Flow	MGD	0.742	0.890	0.543
20° C BOD_5	mg/L	262	788	19
TSS	mg/L	164	510	36

18. The Discharger's Self-Monitoring Reports (SMR) from June 2011 through May 2016 characterize the WWTF effluent as follows:

Constituent	Units	Average	Maximum	Minimum
20° C BOD_5	mg/L	13.2	76	1.0
TSS	mg/L	14.1	108	5.0
pH	pH Units	6.8	9.9	5.6
Total Dissolved Solids	mg/L	809	2000	200
Nitrate as N	mg/L	4.1	90	0.1
Nitrite as N	mg/L	0.62	10	0.02
Total Nitrogen	mg/L	19.5	54	4.1

19. The Dischargers Self-Monitoring Reports (SMR) from June 2011 through May 2016 characterize secondary-23 recycled water used for golf course irrigations as follows:

Constituent	Units	Average	Maximum	Minimum
Flow	MGD	0.558	1.100	0.034
Coliforms	MPN/100mL[4]	6.4	124	<2

[1] 5-day biochemical oxygen demand at 20° Celsius
[2] milligrams per liter
[3] Total Suspended Solids
[4] Most Probable Number per 100 milliliters

20. There are 22 industrial sites within the Mainside wastewater collection system that discharge to the WWTF. In July of 2007, an Industrial Wastewater Characterization study was completed for those sites summarizing the results of wastewater samples. Three types of facilities were sampled in the 2006 sampling event: 1) Oil and Water Separators, 2) vehicle maintenance facilities, and 3) sanitary sewer lines in the vicinity of industrial users and the WWTF. Samples were analyzed for various constituents including: oil and grease, volatile and semi-volatile organic compounds, total petroleum hydrocarbons, PCBs, pesticides, herbicides, metals (CAM17 and hexavalent chromium), biological and chemical oxygen demand and suspended and dissolved solids. The purpose of the study was to determine if the industrial wastewater discharges were causing or potentially could cause impacts to the WWTF. The results of the study were that none of the samples collected had high levels of contaminants that might cause operational problems or biological upsets at the WWTF.

Hydrogeologic Conditions

21. Annual precipitation averages about 4.5 inches.

22. There are no domestic wells within 500 feet of the WWTF.

23. Water supply to the community is from 11 groundwater production wells located in the Surprise Springs subbasin located 10 miles northwest of the MCAGCC. Total Dissolved Solids (TDS) for the water supply ranges from 150 to 245 mg/L with an average 188 mg/L.

24. 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. Groundwater in the Mesquite Lake and Mainside Subbasins contain elevated concentrations of fluorides and sulfates.

25. A Hydrogeological 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 facility ponds. This clayey soil is greater than 25 feet in thickness and continuous beneath the ponds within the treatment facility.

    b. The clay underlying the treatment ponds has measured permeabilities ranging from between 8.2×10^{-10} and 8.77×10^{-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 facility is an extremely effective barrier against the migration of wastewater from the ponds and into the aquifer underlying the treatment facility.

    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 9.61×10^{-10} to 3.51×10^{-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 facility 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 facility would be self-healing. Faulting of the underlying clay would not likely jeopardize its effectiveness in preventing the downward mitigation of wastewater.

26. Regional groundwater flow in the Mainside Subbasin's unconfined deeper primary aquifer is to the southeast along the base of the Bullion Mountains. Approximately one (1) mile southeast of the WWTF, there is a southwestward component of flow away from the Bullion Mountains toward the Mesquite Lake Fault. Groundwater beneath the WWTF flows to the southeast.

27. The site is located in a seismically active desert region, bounded on the east by the Bullion Mountain Fault and on the west by the Mesquite Lake Fault.

Basin Plan, Beneficial Uses, and Regulatory Considerations

28. The Basin Plan designates beneficial uses and establishes water quality objectives for ground and surface waters in the Region, and contains implementation programs and policies to achieve objectives. In addition, State Water Resources Control Board (State Water Board) Resolution 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.

29. The proposed discharge is within the Dale Hydrologic Unit. Beneficial uses for groundwater in the Dale Hydrologic Unit include:

    a. Municipal supply (MUN),

    b. Industrial supply (IND), and

    c. Agricultural supply (AGR).

30. Section 13267 of the CWC authorizes the Regional Water Boards to require technical and monitoring reports. The Monitoring and Reporting Program establishes monitoring and reporting requirements to implement federal and State requirements.

31. This Order establishes WDRs pursuant to Division 7, Chapter 4, Article 4, of the CWC for discharges that are not subject to regulation under Clean Water Act (CWA) Section 402 (33 U.S.C. Section 1342).

32. 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 (CCR). 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).

33. 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, CCR, Section 20005 et seq. (hereinafter Title 27). This exemption is based on Section 20090(b) of Title 27, which states in relevant part that discharges of sewage or treated effluent are exempt from Title 27 provided that the discharges satisfy the following:

    a. Wastes consist primarily of domestic sewage and treated effluent;

    b. Wastes are regulated by WDRs, or a waiver of WDRs;

    c. WDRs are consistent with applicable water quality objectives; and

    d. Treatment and disposal facilities described herein are associated with a municipal wastewater treatment facility.

34. The State Water Resources Control Board, Division of Drinking Water (DDW), formerly the Drinking Water Program of California Department of Health Services (DHS) and later the California Department of Environmental Health, is statutorily required to establish uniform statewide recycling criteria for the various uses of recycled water to assure protection of public health where recycled water use occurs (CWC section 13521). DDW has promulgated regulatory criteria in Title 22, Division 4, Chapter 3, section 60301.050 et seq. of the CCR. DDW regulatory criteria include specified approved uses of recycled water, numerical limitations and requirements, treatment method requirements and performance standards. DDW regulations allow use of alternate methods of treatment in some cases, so long as the alternate methods are determined by DDW to provide equivalent treatment and reliability.

35. The DDW has established statewide reclamation criteria for the use of recycled water and has developed guidelines for specific uses.

36. 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.

37. In a letter dated September 22, 2000, DHS approved the use of secondary–23 treated and

disinfected recycled water from the treatment facility for restricted access landscape irrigation of the MCAGCC golf course.

38. In a letter dated January 23, 2001, DHS states that the use of tertiary treated recycled water is contingent upon approval of an Engineering Report (to be submitted by Discharger to DHS) and optimization of the tertiary treatment system to meet Title 22 criteria.

39. In a letter dated February 24, 2004, DHS states that it had received and reviewed the Title 22 Engineering Report, dated November 2003, for the proposed use of recycled water at MCAGCC. DHS further stated that the Engineering Report was acceptable, contingent upon the Discharger addressing DHS' recommendations and comments. The approval covers six (6) areas and specific locations that are included in the Title 22 Engineering Report submitted November 2003.

40. On June 10, 2004, MCAGCC submitted a final Engineering Report to DHS for the proposed use of tertiary treated recycled water. In a letter dated June 30, 2004, DHS approved the use of tertiary-2.2 treated and disinfected recycled water.

41. Although MCAGCC has been approved for the production and use of tertiary-2.2 treated and disinfected recycled water, the Discharger has removed the tertiary treatment units from the treatment process and has chosen not to produce or use tertiary-22 treated recycled water. The requirements that regulate tertiary-2.2 recycled water will be removed from this Board Order. Upon adoption of this Board Order, the Discharger will not be authorized to produce or use tertiary-2.2 recycled water unless a revised ROWD is submitted that includes a technical report indicating that the tertiary treatment unit has been rehabilitated and is operational. The technical report is subject to review and approval by DDW and the Colorado River Basin Water Board.

42. State policy promotes the use of recycled water to the maximum extent in order to supplement existing surface and ground water supplies to help meet water needs (CWC sections 13510-13512). One of the primary conditions on the use of recycled water is protection of public health (CWC sections 13521, 13522, 13550(a)(3)).

43. Pursuant to CWC section 13263(g), the discharge of waste is a privilege, not a right, and adoption of this Order does not create a vested right to continue the discharge.

Groundwater Degradation

44. State Water Board Resolution 68-16 ("Policy with Respect to Maintaining High Quality Waters of the State") (hereinafter Resolution 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.

45. Some degradation of groundwater from the discharge to the evaporation ponds is consistent with Resolution 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.

46. 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. An impermeable clay layer underlying the WWTF;
    b. Technology for secondary treated disinfected domestic wastewater;
    c. Solids handling facilities;
    d. An operation and maintenance manual;
    e. Staffing to assure proper operation and maintenance; and
    f. A standby emergency power generator of sufficient size to operate the treatment facility and ancillary equipment during periods of loss of commercial power.

    Accordingly, the discharge, as authorized herein, is consistent with the anti-degradation provisions of Resolution 68-16 and the applicable water quality objectives.

Constituents of Concern

47. 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 provides substantial removal of soluble organic matter, solids, and nitrogen.

48. 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 the depth to groundwater and the clay layer beneath the treatment ponds, it is not likely that pathogen-indicator bacteria will reach groundwater at densities exceeding those prescribed in Title 22, CCR.

49. The typical incremental addition of dissolved salts from domestic water usage is 150 to 380 mg/L. Domestic water supply to the community showed a range of 140 to 240 mg/L with an average of about 180 mg/L during the period of June 2011 to May 2016. The TDS increase for this facility for the same time period was about 590 mg/L.

50. Salinity of groundwater beneath the WWTF ponds ranges from 900 to 15,926 mg/L. This Board Order contains a TDS limit of 900 mg/L. During the period of June 2011 to May 2016, the Dischargers SMR show that effluent from the WWTF had a range of 200 to 2000 mg/L with an average of an average of about 809 mg/L. The clay layer beneath

the treatment ponds and the regulatory limit of 900 mg/L reasonably protect present and anticipated beneficial uses of groundwater beneath. Therefore, it is not likely that groundwater will exhibit degradation by TDS.

51. Title 22, CCR, section 64431, Maximum Contaminant Level (MCL) for Nitrate plus Nitrite as Nitrogen is 10 mg/L. To account for the fate of transport for the various components of Total Nitrogen, as a conservative value it is assumed that all nitrogen present converts to nitrate/nitrite. The Discharger's SMRs from June 2011 to May 2016 show a range of 4.1 to 54 mg/L with an average of 20 mg/L for Total Nitrogen. Given the depth to groundwater and the clay layer beneath the treatment ponds, it is not likely that nitrates will reach groundwater at a rate or in concentrations causing groundwater to exceed those prescribed in Title 22, CCR, section 64431.

52. Groundwater limits equal to water quality objectives for indicator waste constituents are appropriate and protective of water quality objectives. The marine base 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.

CEQA / NEPA Public Participation

53. 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.).

54. 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.

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

IT IS HEREBY ORDERED, that Board Order R7-2012-0002 is rescinded upon the effective date of this Order, 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. Discharge Prohibitions

1. Discharge of waste classified as 'hazardous', as defined in Title 23, CCR, Section 2521(a), or 'designated', as defined in California Water Code Section 13173, is prohibited.

2. Discharge of treated wastewater at a location other than the designated disposal areas or as recycled water used for irrigation at approved use areas, is prohibited. This prohibition does not limit the flexibility in discharging different percentages of treated wastewater.

3. The WWTF shall be maintained to prohibit sewage or treated effluent from surfacing or overflowing.

4. The discharge of any wastewater from the facility to any surface waters or surface drainage courses is prohibited.

5. 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.

7. Surfacing or ponding of wastewater outside of the designated disposal locations is prohibited.

8. Bypass or overflow of untreated or partially treated waste is prohibited.

B. Effluent Limitations

1. Effluent discharged to the reservoir for use on the golf course shall not exceed the following effluent limits:

Constituent	Units	Monthly Average	Weekly Average	Daily Maximum
20^{o} C BOD_5[5]	mg/L	45	65	
Total Suspended Solids	mg/L	95	---	---
TDS[6]	mg/L	900	---	---

2. The 30-day monthly average daily discharge from the main WWTF shall not exceed 2.5 MGD for secondary treated water.

3. All basins shall be maintained so they will be kept in aerobic conditions. The dissolved oxygen content in the upper zone (one foot) of all basins shall not be less than 1.0 mg/L.

4. Effluent from the WWTF shall not have a pH below 6.0 or above 9.0.

5. Disinfected secondary-23 recycled water directly reused for golf course irrigation shall conform to the following:

   a. Recycled water shall meet the secondary treatment standards for suspended solids and biochemical oxygen demand listed in the effluent limitations.

   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.

[5] 5-day biochemical oxygen demand at 20 °C
[6] Total Dissolved Solids

C. Groundwater Limitations

1. Discharge from the WWTF shall not cause groundwater to:
   a. Contain constituents in excess of California MCLs, as set forth in the California Code of Regulations, Title 22, section 64426.1 for bacteriological constituents; section 64431 for inorganic chemicals; section 64444 for organic chemicals; and section 64678 for determination of exceedances of lead and copper action levels.
   b. Contain taste or odor-producing substances in concentrations that adversely affect beneficial uses as a result of human activity.

D. Discharge Specifications

1. The treatment or disposal of wastes from the facility shall not cause pollution or nuisance as defined in Sections 13050(l) and 13050(m) of Division 7 of the California Water Code.
2. A minimum depth of two (2) feet of freeboard shall be maintained at all times in all basins.
3. 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.
4. 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.
5. All treatment, storage, and disposal areas shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency.
6. Objectionable odors originating at this facility shall not be perceivable beyond the limits of the wastewater treatment and disposal area.
7. The discharger shall not accept waste in excess of the design treatment capacity of the disposal system.
8. 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.
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. There shall be no cross-connection between potable water supply and piping containing recycled water. Supplementing recycled water with 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.

11. Irrigation with, or impoundment of, disinfected secondary-23 recycled water shall not take place within 100 feet of any domestic water supply well.

12. Irrigation with, or impoundment of, undisinfected secondary recycled water shall not take place within 150 feet of any domestic water supply well.

13. 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.

14. 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.

15. 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.

16. Prior to delivering recycled water to any new user or any new use site on MCAGCC grounds, the discharger shall submit to DDW and the Colorado River Basin Water Board a Title 22 Engineering Report for additional recycled water sites discussing any new distribution system being constructed by the discharger to provide service to the new user or use site.

17. Recycled water shall not be delivered to any new user who has not first received approval from DDW and a discharge permit from the Colorado River Basin Water Board.

E. Pretreatment

1. **Source Control Program Requirements.** The Discharger shall implement a source control program to control the discharge of non-domestic pollutants to its sanitary sewer system and its treatment facilities. This source control program shall be implemented to prevent:

   a. The pass-through of pollutants or any interference with wastewater treatment facility operations from any pollutant, including BOD, excessive heat, oil and grease, metals, and organics that may result in the violation of discharge requirements (including effluent limitations) contained in this Order;

   b. The introduction of pollutants which could create a fire or explosion hazard in the sanitary sewer system or the treatment facility, including waste streams with a closed cup flashpoint of less than 140 degrees °F using test methods specified in 40 CFR 261.21; and

   c. The introduction of pollutants which could cause corrosive structural damage, obstructions in flow, or the formation of toxic gases and fumes in a quantity that

could cause acute worker health and safety problems.

2. **Annual Industrial Waste Survey.** The Discharger shall conduct an annual Industrial Waste Survey (IWS) of all non-domestic facilities in the service area of the permitted treatment facility to determine whether any such facilities may be contributing to violations of the discharge requirements specified in the Order.

3. **Domestic Discharger Source Control.** The Discharger shall develop public education/general awareness outreach materials about proper disposal of fats, oils, grease, and household hazardous waste. These materials shall be reviewed annually and updated as necessary.

4. **Special Requirements for Facilities using Oil/Water Separators.** All non-domestic facilities with the potential to discharge oil and other petroleum products, such as vehicle maintenance facilities, shall be equipped with an oil/water separator (OWS) to handle peak hydraulic loads and to reduce facility influent from containing free oil, or oil and grease at levels that will adversely impact the operation and maintenance of the treatment facility. The Discharger shall develop, budget for, and implement a documented OWS maintenance program that includes the following:

   a. Weekly, documented inspections of each OWS to measure and record sludge and oil depths and to assess and document the condition of rope skimmers, coalescer packs, and other components of the OWS.

   b. Recordkeeping or a logbook to document OWS repairs and service.

   c. Periodic cleaning of the OWSs to remove accumulated sediment on a minimum frequency of semiannually.

5. **Fats, Oil and Grease (FOG) Control Program.** The Discharger shall prepare and implement a FOG control program to reduce the amount of these substances discharged to the sanitary sewer system. This program shall include the following as appropriate:

   a. An implementation plan and schedule for a public education outreach program that promotes proper disposal of FOG;

   b. A plan and schedule for the disposal of FOG generated within the sanitary sewer system service area. This may include a list of acceptable disposal facilities and/or additional facilities needed to adequately dispose of FOG generated within a sanitary sewer system service area;

   c. The legal authority to prohibit discharges to the system and to require the installation of grease traps or interceptors, design standards for the removal devices, maintenance requirements, BMP requirements, record keeping and reporting requirements;

   d. An identification of sanitary sewer system sections subject to FOG blockages and establishment of a cleaning maintenance schedule for each Section; and

   e. Development and implementation of source control measures for all sources of FOG discharged to the sanitary sewer system.

F. Special Provisions

1. Within **nine months** of the adoption of this Order, the Discharger shall submit to the

Colorado River Basin Water Board office a technical report that includes a copy of the Maintenance and Operations Manual for the Mainside WWTF.

G. Health Based Provisions

1. The discharger shall provide the following information regarding off-site use of disinfected secondary-23 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 the location and quantity of recycled water provided to individual customers.

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 DDW shall be conducted at least once every four (4) years. Existing users shall conduct a cross-connection test within a time frame acceptable to DDW. 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 DDW and County Department of Health Services. Results of the cross-connection test shall be submitted to the Colorado River Basin Water Board, DDW and County Department of Health Services within 30 days of completion.

3. 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 DDW.

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. Prior to construction of new facilities planning to discharge recycled water, the Discharger shall submit the design drawings to the DDW, field operations branch, for approval. The Discharger shall, at a maximum, allow DDW a 30-day comment period for completed designs submitted. If comments are not received by the Discharger from DDW 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 and 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. Irrigated areas shall be properly managed to minimize ponding.

10. Recycled water shall not be used as domestic supply water or intentionally used as animal water supply.

11. 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.

H. Standard Provisions

1. The Discharger shall comply with all of the conditions of this Board Order. Noncompliance is a violation of the Porter-Cologne Water Quality Control Act (CWC, section 13000 et seq.), and is grounds for enforcement action.

2. The Discharger shall comply with Monitoring and Reporting Program (MRP) No. R7-2016-0032, and future revisions thereto, as specified by the Colorado River Basin Water Board Executive Officer.

3. The Discharger shall comply with the Electronic Submittal of Information (ESI) requirements by submitting all correspondence and reports required under Monitoring and Reporting Program (MRP) R7-2016-0032, and future revisions thereto, including groundwater monitoring data and discharge location data (latitude and longitude), correspondence, and pdf monitoring reports to the State Water Resources Control Board GeoTracker https://geotracker.waterboards.ca.gov/ database. Documents that are normally mailed by the Discharger, such as regulatory documents, narrative technical monitoring program reports, and such reports submissions, materials, data, and correspondence, to the Colorado River Basin Water Board shall also be uploaded into GeoTracker in the appropriate Microsoft software application, such as word, excel, or an Adobe Portable Document Format (PDF) file. Large documents are to be split into manageable file sizes appropriately labelled and uploaded into GeoTracker.

4. All technical reports required in conjunction with this Order are required pursuant to Section 13267 of the CWC, and shall include a statement by the Discharger, or an authorized representative of the Discharger, certifying under penalty of perjury under the laws of the State of California, that the report is true, complete, and accurate.

5. In accordance with California Business and Professions Code Sections 6735, 7835, and 7835.1, engineering and geologic evaluations and judgments shall be performed by or under the direction of California registered professionals (i.e., civil engineer, engineering geologist, geologist, etc.) competent and proficient in the fields pertinent to the required activities. All technical reports specified herein that contain work plans, that describe the conduct of investigations and studies, or that contain technical conclusions and recommendations concerning engineering and geology shall be prepared by or under

the direction of appropriately qualified professionals, even if not explicitly stated. Each technical report submitted by the Discharger shall contain a statement of qualifications of the responsible licensed professionals as well as the professional's signature and/or stamp of the seal. Additionally, to the extent that preparation of a required technical report involves field activities, field activities shall be conducted under the direct supervision of one or more of these professionals.

6. The Discharger shall not cause degradation of any water supply in accordance with State Water Board Resolution 68-16.

7. Standby, power generating facilities shall be available to operate the facility during a commercial power failure.

8. 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.

9. The Discharger's WWTF and the use of recycled water for golf course irrigation 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.

10. The Discharger shall at all times properly operate and maintain all systems and components of collection, treatment and control, installed or used by the Discharger to achieve compliance with this Board Order. Proper operation and maintenance includes effective performance, adequate process controls, and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities/systems when necessary to achieve compliance with this Board Order. All systems in service or reserved shall be inspected and maintained on a regular basis. Records of inspections and maintenance shall be retained, and made available to the Colorado River Basin Water Board Executive Officer on request.

11. 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.

12. The Discharger shall allow the Colorado River Basin Water Board, or an authorized representative, upon presentation of credentials and other documents as may be required by law, to:

    a. Enter the premises regulated by this Board Order, or the place where records are kept under the conditions of this Board Order;

    b. Have access to and copy, at reasonable times, records kept under the conditions of this Board Order;

    c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Board Order; and

    d. Sample or monitor at reasonable times, for the purpose of assuring compliance with this Board Order or as otherwise authorized by the California Water Code, any

substances or parameters at this location.

13. Disposal of oil and grease, biosolids, screenings, and other solids collected from liquid wastes shall be pursuant to Title 27, and the review and approval of the Colorado River Basin Water Board Executive Officer.

14. Any proposed change in use or disposal of biosolids requires the approval of the Colorado River Basin Water Board Executive Officer, and U.S. Environmental Protection Agency Regional Administrator, who must be notified at least 90 days in advance of the change.

15. Sludge use and disposal shall comply with Federal and State laws and regulations, including permitting requirements, and technical standards in 40 CFR Part 503. If the State and Colorado River Basin Water Boards are delegated the authority to implement 40 CFR Part 503 regulations, this Order may be revised to incorporate appropriate time schedules and technical standards. The Discharger shall comply with the standards and time schedules in 40 CFR part 503, whether or not part of this Order.

16. The Discharger shall provide a plan as to the method, treatment, handling and disposal of sludge that is consistent with all State and Federal laws and regulations and obtain prior written approval from the Colorado River Basin Water Board specifying location and method of disposal, before disposing of treated or untreated sludge, or similar solid waste materials not hauled to the MAGTFTC MCAGCC Class III landfill, which is authorized to accept treated or untreated sludge.

17. The Discharger shall maintain a permanent log of all solids hauled away from the treatment facility for use/disposal elsewhere and shall provide a summary of the volume, type (screenings, grit, raw sludge, digested sludge), use (agricultural, composting, etc.), and the destination in accordance with the MRP of this Board Order. Sludge that is stockpiled at the treatment facility shall be sampled and analyzed for those constituents listed in the sludge monitoring section of the MRP of this Board Order and as required by Title 40, Code of Federal Regulations, Part 503. The results of the analyses shall be submitted to the Regional Board as part of the MRP.

18. The Discharger shall provide a report to the Regional Board when it determines that the facility's average dry-weather flow rate for any month exceeds 80 percent of the design capacity. The report should indicate what steps, if any, the Discharger intends to take to provide for the expected wastewater treatment capacity necessary when the facility reaches design capacity.

19. Prior to implementing a modification that results in a material change in the quality or quantity of wastewater treated or discharged, or a material change in the location of discharge, the Discharger shall report all pertinent information in writing to the Colorado River Basin Water Board, and obtain revised requirements.

20. 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 Colorado River Basin Water Board.

21. The Discharger shall provide adequate notice to the Colorado River Basin Water Board Executive Officer of the following:

a. The introduction of pollutants into any treatment facility described in the Findings of this Board Order from an indirect Discharger which would be subject to Section 301 or 306 of the Clean Water Act, if the pollutants were discharged directly;

b. Any substantial change in the volume or character of pollutants introduced into any treatment facility described in the Findings of this Board Order, by an existing or new source; and

c. Any planned physical alteration or addition to the facilities described in this Board Order, or change planned in the Discharger's sludge use or disposal practice, where such alterations, additions, or changes may justify the application of Board Order conditions that are different from or absent in the existing Board Order, including notification of additional disposal sites not reported during the Board Order application process, or not reported pursuant to an approved land application plan.

22. The Discharger shall report orally, any noncompliance that may endanger human health or the environment. The noncompliance shall be reported immediately to the Colorado River Basin Water Board's Executive Officer at (760) 346-7491, and the California Office of Emergency Services at (800) 852-7550 as soon as:

    a. The Discharger has knowledge of the discharge,

    b. Notification is possible, and

    c. Notification will not substantially impede cleanup or other emergency measures.

    During non-business hours, the Discharger shall leave a message on the Colorado River Basin Water Board's office voice recorder at the above listed number. Incident information shall be provided orally as soon as possible and within 24 hours from the time the Discharger becomes aware of the incident. A written report shall also be provided within five (5) business days of the time the Discharger becomes aware of the incident. The written report shall contain a description of the noncompliance and its cause, the period of noncompliance, the anticipated time to achieve full compliance, and the steps taken or planned, to reduce, eliminate, and prevent recurrence of the noncompliance. The Discharger shall report all intentional or unintentional spills in excess of one thousand (1,000) gallons occurring within the Colorado River Basin Water Board's jurisdiction, in accordance with the above time limits.

23. The Discharger shall report all instances of noncompliance. Reports of noncompliance shall be submitted with the Discharger's next scheduled SMR or earlier if requested by the Colorado River Basin Water Board Executive Officer, or if required by an applicable standard for sludge use and disposal.

24. By-pass (i.e., the intentional diversion of waste streams from any portion of the treatment facilities, except diversions designed to meet variable effluent limits) is prohibited. The Colorado River Basin Water Board may take enforcement action against the Discharger for by-pass unless:

    a. By-pass was unavoidable to prevent loss of life, personal injury, or severe property damage. Severe property damage means substantial physical damage to property, damage to the treatment facilities that causes them to be inoperable, or substantial and permanent loss of natural resources reasonably expected to occur in the absence of a by-pass. Severe property damage does not mean economic loss caused by delays in production; and

There were no feasible alternatives to by-pass, such as the use of auxiliary treatment facilities or retention of untreated waste. This condition is not satisfied if adequate back-up equipment was not installed to prevent by-pass occurring during equipment downtime, or preventive maintenance.

b. By-pass is:

   i. Required for essential maintenance to assure efficient operation; and

   ii. Neither effluent nor receiving water limitations are exceeded; and

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

25. In the event of an unanticipated by-pass, the Discharger shall immediately report the incident to the Colorado River Basin Water Board. During non-business hours, the Discharger shall leave a message on the Colorado River Basin Water Board office voice recorder. A written report shall be provided within five (5) business days the Discharger is aware of the incident. The written report shall include a description of the by-pass, any noncompliance, the cause, period of noncompliance, anticipated time to achieve full compliance, and steps taken or planned, to reduce, eliminate, and prevent recurrence of the noncompliance.

26. 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.

27. Storm water discharges from the facility shall not cause or threaten to cause pollution or contamination.

28. 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.

29. 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 modification or revocation of these waste discharge requirements by the Colorado River Basin Water Board.

30. This Board Order does not authorize violation of any federal, state, or local laws or regulations.

31. 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.

32. 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 the Colorado River Basin Water Board (including revisions to the Basin Plan), or Federal government.

I, Jose L. Angel, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, Colorado River Basin Region, on September 15, 2016.

Jose L. Angel

JOSE L. ANGEL, P.E.
Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION
MONITORING AND REPORTING PROGRAM R7-2016-0032

FOR
UNITED STATES MARINE CORPS, OWNER/OPERATOR
MAINSIDE WASTEWATER TREATMENT FACILITY
Twentynine Palms – San Bernardino County

Location of Wastewater Treatment Facility: NW ¼ of Section 29, T2N, R9E, SBB&M
Location of golf course: NW ¼ of Section 19, T2N, R9E, SBB&M

A. Monitoring

1. This Monitoring and Reporting Program (MRP) describes requirements for monitoring a wastewater system and groundwater quality (when needed). This MRP is issued pursuant to California Water Code (CWC) section 13267. The Discharger shall not implement any changes to this MRP unless and until a revised MRP is issued by the Executive Officer.

2. Water Code section 13267 states, in part:

   "In conducting an investigation specified in subdivision (a), the Colorado River Basin Water Board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the Colorado River Basin Water Board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the Colorado River Basin Water Board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports."

3. Water Code section 13268 states, in part:

   "(a) (1) Any person failing or refusing to furnish technical or monitoring program reports as required by subdivision (b) of section 13267, or failing or refusing to furnish a statement of compliance as required by subdivision (b) of section 13399.2, or falsifying any information provided therein, is guilty of a misdemeanor, and may be liable civilly in accordance with subdivision (b). (b) (1) Civil liability may be administratively imposed by a Colorado River Basin Water Board in accordance with Article 2.5 (commencing with section 13323) of Chapter 5 for a violation of subdivision (a) in an amount which shall not exceed one thousand dollars ($1,000) for each day in which the violation occurs."

4. The Discharger owns and operates the wastewater system that is subject to Board Order R7-2016-0032. The reports are necessary to ensure that the Discharger complies with the Order. Pursuant to Water Code section 13267, the Discharger shall implement the MRP and shall submit the monitoring reports described herein.

5. All samples and measurements shall be representative of the volume and nature of the discharge or matrix of material sampled. The time, date, and location of each grab sample

shall be recorded on the sample chain of custody form. If composite samples are collected, the basis for sampling (time or flow weighted) shall be approved by Colorado River Basin Water Board staff.

6. Field test instruments (such as those used to test pH, dissolved oxygen, and electrical conductivity) may be used provided that:
   a. The user is trained in proper use and maintenance of the instruments;
   b. The instruments are field calibrated prior to monitoring events at the frequency recommended by the manufacturer;
   c. Instruments are serviced and/or calibrated by the manufacturer at the recommended frequency; and
   d. Field calibration reports are submitted as described in the "Reporting" section of this MRP.

7. The collection, preservation and holding times of all samples shall be in accordance with United States Environmental Protection Agency (USEPA) approved procedures. Unless otherwise approved by the Colorado River Basin Water Board's Executive Officer, all analyses shall be conducted by a laboratory certified by the State Department of Health Services. All analyses shall be conducted in accordance with the latest edition of the "Guidelines Establishing Test Procedures for Analysis of Pollutants" (40 CFR Part 136), promulgated by the USEPA.

8. All monitoring instruments and devices used by the discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy. In the event that continuous monitoring equipment is out of service for period greater than 24-hours, the Discharger shall obtain representative grab samples each day the equipment is out of service. The Discharger shall correct the cause(s) of failure of the continuous monitoring equipment as soon as practicable. The Discharger shall report the period(s) during which the equipment was out of service and if the problem has not been corrected, shall identify the steps which the Discharger is taking or proposes to take to bring the equipment back into service and the schedule for these actions.

9. The Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Board Order, and records of all data used to complete the application for this Board Order, for a period of at least five (5) years from the date of the sample, measurement, report or application. This period may be extended by request of the Colorado River Basin Water Board's Executive Officer at any time. Records of monitoring information shall include:
   a. The date, exact place, and time of sampling or measurement(s);
   b. The individual(s) who performed the sampling or measurement(s);
   c. The date(s) analyses were performed;
   d. The individual(s) who performed the analyses;
   e. The analytical techniques or method used; and
   f. The results of such analyses.

10. Samples shall be collected at the location specified in the Permit. If no location is specified, sampling shall be conducted at the most representative sampling point available.

11. Given the monitoring frequency prescribed by MRP R7-2016-0032, if only one sample is available for a given reporting period, compliance with monthly average, or weekly average Discharge Specifications, will be determined from that sample.

12. If the facility is not in operation, or there is no discharge during a required reporting period, the Discharger shall forward a letter to the Colorado River Basin Water Board indicating that there has been no activity during the required reporting period.

Influent Monitoring

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

Constituent	Units	Type of Sample	Sampling Frequency	Reporting Frequency
Flow (Total Facility Influent)	MGD[1]	Flow Measurement	Daily[2]	Monthly
20°C BOD_5[3]	mg/L[4]	24-Hr. Composite or 4 grab samples in an 8-hour period[5]	Once every two weeks	Monthly
TSS[6]	mg/L	24-Hr. Composite or 4 grab samples in an 8-hour period	Once every two weeks	Monthly

WWTF Secondary Effluent Monitoring

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

Constituent	Units	Type of Sample	Sampling Frequency	Reporting Frequency
20° C BOD_5	mg/L	24-Hr. Composite or 4 grab samples in an 8-hour period	Once every two weeks	Monthly
TSS	mg/L	24-Hr. Composite or 4 grab samples in an 8-hour period	Once every two weeks	Monthly

[1] Million Gallons-Per-Day
[2] Reported for each day with average monthly flow calculated
[3] 5-day biochemical oxygen demand at 20 °C
[4] Milligrams per liter
[5] The period shall be between 6 am through 4 pm
[6] Total Suspended Solids

Constituent	Units	Type of Sample	Sampling Frequency	Reporting Frequency
Settleable Solids	mg/L	Grab	Monthly	Monthly
TDS	mg/L	Grab	Monthly	Monthly
Nitrate (NO_3^-N) as Nitrogen	mg/L	Grab	Monthly	Monthly
Nitrite (NO_2^-N) as Nitrogen	mg/L	Grab	Monthly	Monthly
Total Nitrogen	mg/L	Grab	Monthly	Monthly
Volatile Organic Compounds[7]	µg/L[8]	Grab	Annually	Annually

Pond 1 Monitoring

15. The wastewater treatment pond shall monitored according to the following schedule:

Constituent	Units	Type of Sample	Sampling Frequency	Reporting Frequency
pH	pH units	Grab	Weekly	Monthly
Dissolved Oxygen	mg/L	Grab	Weekly	Monthly
Freeboard	ft	Measurement	Monthly	Monthly

Disinfected Secondary-23 Recycled Water

16. Disinfected secondary-23 recycled water used for golf course irrigation shall monitored according to the following schedule:

Constituent	Units	Type of Sample	Sampling Frequency	Reporting Frequency
Flow	MGD	Measurement	Daily	Monthly
Total Coliforms	MPN/100mL[9]	Grab	Daily	Monthly
Chlorine Residual	mg/L	Meter Reading	Continuous	Monthly

Water Supply to the Community

17. The domestic water supply shall be monitored according to the following schedule:

Constituent	Units	Type of Sample	Sampling Frequency	Reporting Frequency
TDS	mg/L	Grab	Monthly	Monthly

[7] Analysis of Volatile Organic Compounds is to be accomplished using the USEPA test methods 601 and 602 or 624
[8] Micrograms per liter
[9] Most Probable Number per 100 milliliters

Sludge Monitoring

18. The Discharger shall report annually on the quantity, location and method of disposal of all sludge and similar solid materials being produced at the WWTF. If no sludge is disposed of during the year being reported, the Discharger shall state "No Sludge Removed" in the annual monitoring report. Sludge that is generated at the WWTF shall be sampled and analyzed for the following:

Constituent	Units	Type of Sample	Sampling Frequency	Reporting Frequency
Arsenic	mg/kg[10]	Composite	Prior to Disposal	Annually
Cadmium	mg/kg	Composite	Prior to Disposal	Annually
Copper	mg/kg	Composite	Prior to Disposal	Annually
Lead	mg/kg	Composite	Prior to Disposal	Annually
Mercury	mg/kg	Composite	Prior to Disposal	Annually
Molybdenum	mg/kg	Composite	Prior to Disposal	Annually
Nickel	mg/kg	Composite	Prior to Disposal	Annually
Selenium	mg/kg	Composite	Prior to Disposal	Annually
Zinc	mg/kg	Composite	Prior to Disposal	Annually
Fecal Coliform	MPN/gram[11]	Composite	Prior to Disposal	Annually

B. Reporting

1. The Discharger shall inspect and document any operation/maintenance problems by inspecting each unit process. Operation and Maintenance and Pretreatment reports shall be submitted to the Colorado River Basin Water Board Office annually, containing documentation showing the calibration of flow meters and equipment as performed in a timely manner, modifications and updates to the Operation and Maintenance Manual, and modifications and updates to the Agency's waste water ordinance or rules and regulations.

2. The Discharger shall provide an operator certification status update including number of staff and grade certification annually.

3. SMRs shall be certified under penalty of perjury to be true and correct, and shall contain the required information at the frequency designated in this MRP.

4. Each Report must contain an affirmation in writing that:

   "All analyses were conducted at a laboratory certified for such analyses by and in accordance with current USEPA procedures or as specified in this Monitoring and

[10] Milligrams per kilogram
[11] Most Probable Number per gram

Reporting Program."

5. Each Report shall contain the following completed declaration:

   "I certify under the penalty of law that this document, including all attachments and supplemental information, was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment.

   Executed on the _____day of _____ at _____

   _____(Signature)

   _____(Title)"

6. The SMRs, and other information requested by the Colorado River Basin Water Board, shall be signed by a principal executive officer or ranking elected official.

7. A duly authorized representative of the Discharger may sign the documents if:
   a. The authorization is made in writing by the person described above;
   b. The authorization specified an individual or person having responsibility for the overall operation of the regulated disposal system; and
   c. The written authorization is submitted to the Colorado River Basin Water Board's Executive Officer.

8. The Discharger shall attach a cover letter to the SMRs. The information contained in the cover letter shall clearly identify violations of the WDRs; discuss corrective actions taken or planned and the proposed time schedule of corrective actions. Identified violations should include a description of the requirement that was violated and a description of the violation.

9. 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).

10. The results of any analysis taken, more frequently than required at the locations specified in this MRP shall be reported to the Colorado River Basin Water Board.

11. Daily, weekly, and monthly monitoring shall be included in the monthly monitoring report. Monthly monitoring reports shall be submitted to the Colorado River Basin Water Board by the 15th day of the following month. Quarterly monitoring reports shall be submitted by January 15th, April 15th, July 15th and October 15th. Annual monitoring reports shall be submitted by January 31st of the following year.

12. The Discharger shall comply with the Electronic Submittal of Information (ESI) requirements by submitting all correspondence and reports required under Monitoring and Reporting Program (MRP) R7-2016-0032, and future revisions thereto, including groundwater monitoring data and discharge location data (latitude and longitude), correspondence, and pdf monitoring reports to the State Water Resources Control Board GeoTracker database. Documents that are 2.0 MB or larger should be broken down into smaller electronic files, labelled properly and uploaded into GeoTracker.

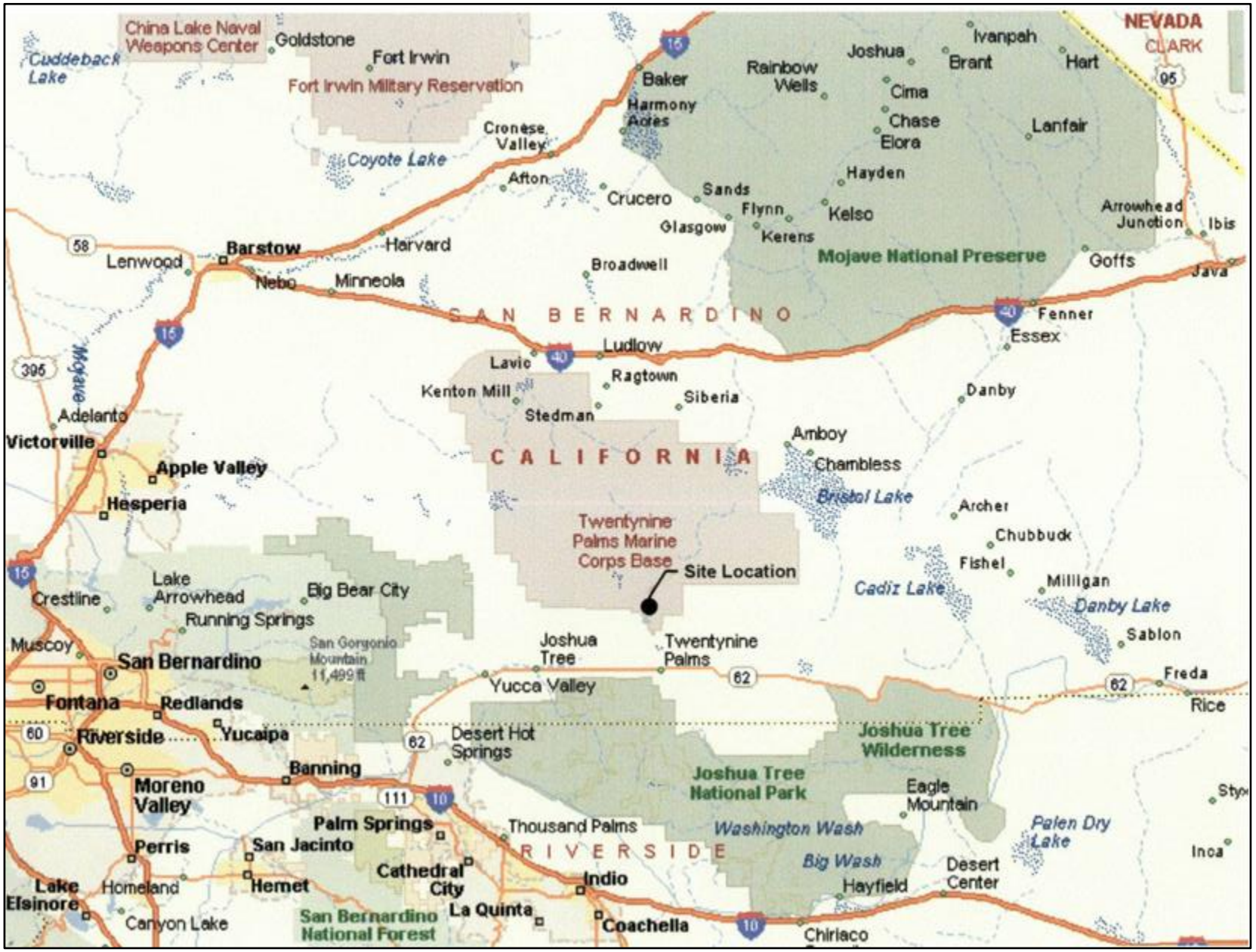
Jose L. Angel

JOSE L. ANGEL P.E.
Executive Officer

9/15/2016

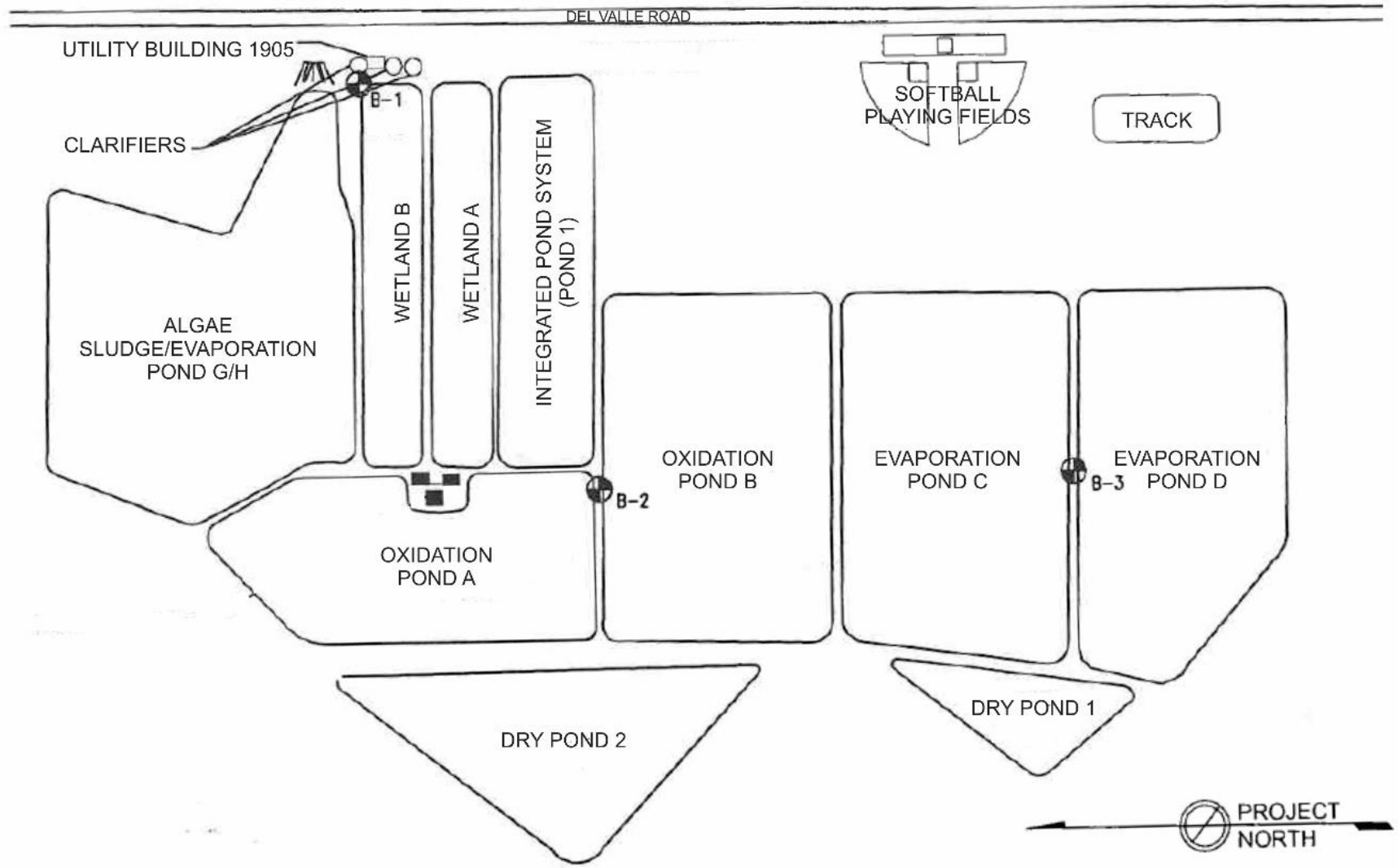
Date

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION



BOARD ORDER R7-2016-0032; ATTACHMENT A – VICINITY AND SITE MAP

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION



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