

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

BOARD ORDER R7-2013-0062

**WASTE DISCHARGE REQUIREMENTS
FOR
COACHELLA VALLEY WATER DISTRICT, OWNER/OPERATOR
PALM DESERT COUNTRY CLUB WASTEWATER RECLAMATION PLANT NO. 9
Palm Desert - Riverside County**

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

1. Coachella Valley Water District (CVWD or Discharger), Post Office Box 1058, Coachella, California, owns and operates a wastewater reclamation plant (WRP) (Facility) and provides sewerage service to the Palm Desert Country Club subdivision, depicted on the Location and Vicinity Map (Attachment A), incorporated herein and made part of this Board Order. The WRP, located at the street address of 43900 Elkhorn Trail, Palm Desert, California 92260, has a design secondary treatment capacity of 0.4 million gallons per day (MGD) and presently discharges an average of approximately 0.27 MGD of secondary treated effluent to a lined storage pond located in the Southwest $\frac{1}{4}$ of Section 13, Township 5 South, Range 6 East, San Bernardino Base and Meridian. From the lined storage pond the recycled water is pumped to the Palm Desert Country Club, 77800 California Drive, Palm Desert, California, mixed with pumped ground water in the irrigation system, and used for golf course irrigation; excess recycled water is discharged to a percolation pond.
2. The discharge has been subject to Waste Discharge Requirements (WDRs) prescribed under Board Order 97-004, adopted on May 28, 1997. The Regional Water Board has determined that WDRs for the discharge are in need of revision. There is no substantial change in the quality or quantity of discharge. The WDRs are being updated to implement the most current laws and regulations, as set forth in the California Water Code and the California Code of Regulations (CCR).

Wastewater Treatment Facility and Discharge

3. The WRP consists of disinfected secondary treatment that includes an activated sludge wastewater treatment plant and the following treatment units: a grit chamber; two aeration tanks; two secondary clarifiers, one of which is out of service and taken offline indefinitely; a chlorine contact chamber; an aerobic sludge digester; a cement lined storage pond; and an unlined percolation pond. The process flow is depicted in the Flow Process Schematic (Attachment B), incorporated herein and made part of this Board Order.
4. Any raw wastewater in excess of the design capacity of 0.4 MGD that may enter this facility during peak flows is pumped to the Discharger's Mid-Valley WRP No. 4 (WRP4), regulated under Board Order R7-2012-0008, National Pollutant Discharge Elimination System (NPDES) Permit CA0104973. In addition, all sludge generated at the WRP9 facility is pumped from the aerobic digester to the WRP4 facility for further treatment and disposal. No sludge is stockpiled at the WRP9 site.

5. Back-up power is available for all collection system pump stations. All pump stations have both duty and standby pumps.
6. The Discharger's Self-Monitoring Reports (SMR) from March 2008 through March 2013 characterize the WRP influent and effluent as follows:

| | Constituent | units | Average¹ | Maximum | Minimum |
|-----------------------|-------------------------------------|-------------------------|----------------------------|----------------|----------------|
| Influent | Flow | MGD | 0.27 | 0.31 | 0.20 |
| | 20°C CBOD ₅ ² | mg/L | 418 | 830 | 213 |
| | Total Suspended Solids | mg/L ³ | 591 | 9,333 | 208 |
| Effluent | 20°C CBOD ₅ | mg/L | 3.7 | 14 | 0.9 |
| | Total Suspended Solids | mg/L | 5.4 | 25 | 1.7 |
| | Settleable Matter | ml/L ⁴ | <0.1 | <0.1 | <0.1 |
| | Total Dissolved Solids | mg/L | 349 | 410 | 310 |
| | Dissolved Oxygen ⁵ | mg/L | 15 | 22 | 10 |
| Recycled Water | Flow | MGD | 0.17 | 0.27 | 0.04 |
| | Nitrate as N | mg/L | 8.2 | 19 | 1.2 |
| | Ammonia as N | mg/L | 5.9 | 22 | 0.1 |
| | Nitrite as N | mg/L | 0.24 | 0.55 | 0.03 |
| | Total Coliform | MPN/100 mL ⁶ | -- ⁷ | 20.6 | <1.8 |
| | Chlorine Residual | mg/L | 13.5 | 16.2 | 9.4 |
| Sludge | Quantity | Tons | 17 | 22 | 13 |

¹ Average, maximum and minimum values are based on reporting period averages for each respective constituent during the five-year period.

² CBOD₅ – Carbonaceous Biochemical Oxygen Demand

³ mg/L – milligrams per liter

⁴ ml/L – milliliters per liter

⁵ Monitored at the upper layer (one foot or less) of the percolation/storage ponds.

⁶ MPN/100mL – Most Probable Number per 100 milliliters

⁷ Total Coliform average not reported

Hydrogeologic Conditions

7. Annual precipitation in the region averages about 3.6 inches. Annual evapotranspiration rate in the vicinity is approximately 66 inches.
8. There are no surface waters in the vicinity of the WRP. A drainage course referred to as the Coachella Valley Stormwater Channel is located approximately 1700 feet to the north from the WRP.
9. There are no domestic wells within 1,000 feet of the WRP.
10. Water supply to the community is from groundwater production wells located in the Indio Subbasin. Total Dissolved Solids (TDS) in the water supply ranges from 196 to 212 mg/L based on values reported in the Discharger's Annual SMRs for years 2008-2012.
11. Regional groundwater flow in the area is generally from the northwest to the southeast.
12. CVWD reports the following water quality data from the groundwater monitoring well and water supply wells that are located closest to WRP 9:

| | WRP10 Monitoring Well #6 (upgradient) | Well 5708-1 Domestic (downgradient) | Well 5709-1 Domestic (downgradient) | Average Between Locations |
|---|--|--|--|--|
| Distance to WRP 9 (mi) | 0.9 | 1.7 | 1.9 | |
| Depth to Groundwater (ft) | 220 | 193 | 187 | 200 |
| Nitrate (mg/L) | 12.8 | 6.2 | 3.2 | 7.4 |
| Nitrate as N (NO ₃ -N) (mg/L) | 56 | 28 | 14 | 32.7 |
| TDS (mg/L) | 530 | 291.5 | 240 | 354 |

13. The site is located in a seismically active desert region.

Basin Plan, Beneficial Uses, and Regulatory Considerations

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

15. The proposed discharge is within the Coachella Hydrologic Unit. The beneficial uses of groundwater in the Coachella Hydrologic Unit include:
 - a. Municipal supply (MUN),
 - b. Industrial supply (IND), and
 - c. Agricultural supply (AGR).
16. WDRs implement numeric and narrative 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, CCR. The narrative objectives are:
 - a. Ground water for use as domestic or municipal water supply (MUN) 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).
 - b. Discharges of water softener regeneration brines, other mineralized wastes, and toxic wastes 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).
17. It is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This order promotes that policy by requiring discharges to meet maximum contaminant levels designed to protect human health and ensure that water is safe for domestic use.
18. Section 13267 of the California Water Code (CWC) authorizes the Regional Water Boards to require technical and monitoring reports. The Monitoring and Reporting Program (MRP) establishes monitoring and reporting requirements to implement federal and state requirements.
19. 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).
20. 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.
21. The discharge to the percolation ponds 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 requirements of Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste, as set forth in Title 27, CCR, Division 2, Subdivision 1, Section 20090(a). This exemption is based on Section 20090(a) of Title 27, which states in relevant part that discharges of domestic sewage or treated effluent are exempt provided that such

discharges are regulated by WDRs, or for which WDRs have been waived, and which are consistent with applicable water quality objectives, and treatment or storage facilities associated with municipal wastewater treatment plants, provided that residual sludges or solid waste from wastewater treatment facilities shall be discharged only in accordance with the applicable Title 27 provisions. These requirements have been met. The discharge is domestic sewage, this Board Order regulates that discharge in a manner consistent with applicable surface and ground water quality objectives, and residual sludges or solid waste from the Facility will be managed pursuant to Title 27.

22. The discharge to the storage ponds for reuse 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 requirements of Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste, as set forth in Title 27, CCR, Division 2, Subdivision 1, Section 20090(h).

Recycled Water

23. State law 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)).
24. The State Water Board adopted a Recycled Water Policy (Policy) on February 3, 2009, and amended the Policy on January 22, 2013. Section 7b(4) of the amended Policy states that permits or requirements for landscape irrigation projects shall include, in addition to any other appropriate recycled water monitoring requirements, monitoring for priority pollutants in the recycled water at the recycled water production facility once per year, except when the recycled water production facility has a design production flow for the entire water reuse system of one MGD or less. For these smaller facilities, recycled water shall be monitored for priority pollutants once every five years. Priority pollutants are those identified in 40 CFR Part 423, Appendix A.
25. The California Department of Public Health (CDPH), formerly California Department of Health Services (DHS), 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 is involved (CWC section 13521). CDPH has promulgated regulatory criteria in Title 22, Division 4, Chapter 3, section 60301 et seq. of the CCR. CDPH regulatory criteria include specified approved uses of recycled water, numerical limitations and requirements, treatment method requirements and performance standards. CDPH regulations allow use of alternate methods of treatment in some cases so long as the alternate methods are determined by CDPH to provide equivalent treatment and reliability. In low threat situations, such as in this case where access is restricted, the Title 22, Section 60301.225 disinfected secondary - 23 standard (Secondary-23), is an appropriate level of treatment for the intended reuse. For Secondary-23 wastewater reuse the disinfected effluent shall not exceed a Most Probable Number (MPN) of 23 per 100 milliliters.
26. A 1996 Memorandum of Agreement (MOA) between the DHS, State Water Board, and the regional water boards on the use of recycled water allocates primary areas of responsibility and authority between these agencies. The MOA provides methods and

mechanisms necessary to assure ongoing and continuous future coordination of activities relative to the use of recycled water in California.

27. The CDPH has established statewide reclamation criteria for the use of recycled water and has developed guidelines for specific uses:
- a. Recycled water used for surface irrigation of the following is required to be at least disinfected Secondary-23 recycled water:
 - i. Cemeteries,
 - ii. Freeway landscaping,
 - iii. Restricted access golf courses,
 - iv. Ornamental nursery stock and sod farms where access by the general public is not restricted,
 - v. Pasture for animals producing milk for human consumption, and
 - vi. 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.
 - b. Recycled water used for surface irrigation of the following is required to be at least disinfected tertiary recycled water:
 - i. Food crops, including all edible root crops, where the recycled water comes into contact with the edible portion of the crop,
 - ii. Parks and playgrounds,
 - iii. School yards,
 - iv. Residential landscaping,
 - v. Unrestricted access golf courses, and
 - vi. Any other irrigation use not specified in Section 60304 and not prohibited by other sections of the CCR.
28. In May 1996, the Discharger signed and agreed upon the implementation of an irrigation operations plan. The Drinking Water Field Operations Branch of DHS approved the operations plan on July 24, 1996.

Groundwater Degradation

29. State Water Board Resolution 68-16, "Policy with Respect to Maintaining High Quality Waters of the State"(Resolution 68-16) states:

"Whenever the existing quality of water is better than the quality established in policies as of the date on which such policies become effective, such existing high quality will be maintained until it has been demonstrated to the State that any change will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of such water and will not result in water quality less than that prescribed in the policies."

Resolution 68-16 further states:

“Any activity which produces or may produce a waste or increased volume or concentration of waste and which discharges or proposes to discharge to existing high quality waters will be required to meet waste discharge requirements which will result in the best practicable treatment or control [BPTC] of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained.”

30. Some degradation of groundwater from the discharge to the percolation/storage ponds is consistent with Resolution 68-16, provided that the 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.
31. The discharge of wastewater from the WRP, 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 68-16. The WRP incorporates:
 - a. Technology for secondary or tertiary treated disinfected domestic wastewater;
 - b. Solids handling facilities;
 - c. An operation and maintenance manual;
 - d. Staffing to assure proper operation and maintenance; and
 - e. A standby emergency power generator of sufficient size to operate the treatment plant and ancillary equipment during periods of loss of commercial power.
32. Constituents in domestic wastewater effluent that present the greatest risk to groundwater quality are nitrogen, coliforms (pathogen-indicator organisms), and TDS. The WRP provides substantial removal of soluble organic matter, solids, and some nitrogen treatment.
33. Title 22, CCR § 64431, Maximum Contaminant Level (MCL) for Nitrate plus Nitrite as Nitrogen is 10 mg/L. Elevated concentrations of nitrate in domestic water supplies can be toxic to human life and may cause infants to develop methemoglobinemia (blue baby syndrome). 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 report an average of 13.9 mg/L for Total Nitrogen between the second Quarter of 2008 and first Quarter of 2013. The concentration of Nitrogen in the effluent is higher than the groundwater level of Nitrate as Nitrogen in the vicinity of the Facility reported by CVWD, which is 12.8 mg/L in the upgradient groundwater monitoring well and an average of 4.7 mg/L in the two downgradient domestic wells (Nitrite as Nitrogen values for groundwater is not available). It is likely nitrates will reach groundwater in concentrations that exceed the MCL prescribed in Title 22, CCR, section 64431. However, reuse will mitigate this to some degree and

degradation by nitrates would not be significant and would be confined to a discrete area. Therefore the discharge complies with Resolution 68-16.

34. 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). The WRP provides disinfection by chlorination to Title 22, Secondary-23 recycled water standards. As such, wastewater in the percolation/storage ponds is disinfected. In addition, given the depth to groundwater, it is not likely that pathogen-indicator bacteria will reach groundwater at densities exceeding those prescribed in Title 22, CCR.
35. 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 130 to 700 mg/L with an average of about 225 mg/L during the period of January 2008 to December 2011. The average TDS increase for this facility for the same time period was about 125 mg/L. The CDPH recommends that the concentration of TDS in drinking water be limited to 500 mg/L as a secondary MCL (CCR, Title 22, Section 64449). There is no primary drinking water MCL for TDS. For most agricultural irrigation uses and based on the sensitivity of the specific crop to TDS, the water supply should have a TDS concentration under 700 mg/L.
36. Salinity of groundwater in the vicinity of the WRP ranges from 220 to 600 mg/L with an average of approximately 350 mg/L. Board Order 97-004 allowed a TDS limit of a maximum of 300 mg/L above the domestic source water. The regulatory limit of 300 mg/L above the domestic source water has been successfully maintained by the Discharger and reasonably protects present and anticipated beneficial uses of groundwater beneath; therefore, is not likely that groundwater will exhibit significant degradation by TDS. Board Order R7-2013-0062 maintains this requirement of a maximum of 300 mg/L above the domestic source water. During the period of Second Quarter of 2008 to First Quarter of 2013, the Discharger's SMRs show that effluent from the WRP had a range of 310 to 410 mg/L with an average of approximately 350 mg/L.
37. Groundwater limits equal to water quality objectives for indicator waste constituents are appropriate and protective of water quality objectives. CVWD and Palm Desert Country Club contribute to economic development in the area. This factor and the associated modest increase in TDS are consistent with maximum benefit to the people of the State. Accordingly, the discharge as authorized is consistent with the anti-degradation provisions of Resolution 68-16.
38. This discharge is consistent with the State Water Board's Recycled Water Policy. The discharge will be subject to any requirements which may be imposed by a salt and nutrient management plan (SNMP), currently being developed by the Coachella Valley Integrated Regional Water Management Plan (IRWMP) group, as required by the Recycled Water Policy. The Discharger is participating in the IRWMP effort to develop the SNMP.

Stormwater

39. Federal regulations for storm water discharges were promulgated by the U.S. Environmental Protection Agency on November 16, 1990, (40 CFR Parts 122, 123, and 124) to implement the Clean Water Act's storm water program set forth in Clean Water Act

section 402(p) (33 U.S.C. § 1342(p)). In part, the regulations require specific categories of facilities that discharge storm water associated with industrial activity to “waters of the United States” to obtain NPDES permits requiring control of such pollutant discharges using Best Available Technology Economically Achievable (BAT) and Best Conventional Pollutant Control Technology (BCT) to prevent and reduce pollutants and to implement any more stringent controls necessary to meet water quality standards. Facilities used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated to the disposal of sewage sludge that are within the confines of the facility with a design flow of one million gallons a day or more are required to have an approved pretreatment program under 40 CFR Part 403. Because the WRP has a design flow of 0.4 MGD, it is not currently subject to the storm water program.

CEQA and Public Participation

40. In accordance with Section 15301, Chapter 3, Title 14, CCR, 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.).
41. The Regional Water 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.
42. The Regional Water Board, in a public meeting, heard and considered all comments pertaining to this discharge.

IT IS HEREBY ORDERED, that Board Order 97-004 is rescinded upon the effective date of this Order, except for enforcement purposes, and, in order to meet the provisions contained in Division 7 of the California Water Code, and regulations and guidelines 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. Discharges of water softener regeneration brines, other mineralized wastes, and toxic wastes to disposal facilities are prohibited.
3. 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.
4. The WRP shall be maintained to prohibit sewage or treated effluent from surfacing or overflowing.
5. The discharge of any wastewater from the WRP to any surface waters or surface drainage courses is prohibited.

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 percolation/storage ponds shall not exceed the following effluent limits:

| <u>Constituent</u> | <u>Units</u> | <u>Monthly Average¹</u> | <u>Weekly Average²</u> |
|------------------------|--------------|------------------------------------|-----------------------------------|
| 20° C BOD ₅ | mg/L | 25 | 40 |
| Total Suspended Solids | mg/L | 30 | 45 |
| Settleable Matter | ml/L | 0.3 | 0.5 |

- 1) The monthly average is the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.
 - 2) The weekly average is the highest allowable average of daily discharges over a calendar week (Sunday through Saturday), calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.
2. The wastewater effluent and recycled water shall not contain TDS concentration in excess of 300 mg/L above the domestic source water. Compliance with this effluent limitation for each reporting period will be determined by comparing effluent or recycled water TDS against the latest available TDS monitoring result for domestic supply.
 3. The 30-day monthly average daily discharge from the WRP shall not exceed 0.4 MGD.
 4. Effluent from the WRP shall not have a pH below 6.0 or above 9.0.
 5. The percolation/storage ponds shall be maintained so they will be kept in aerobic conditions. The dissolved oxygen content in the upper zone (one foot) of percolation/storage ponds shall not be less than 1.0 mg/L.
 6. Disinfected Secondary-23 recycled water directly reused 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.

C. Discharge Specification

1. The treatment or disposal of wastes from the WRP shall not cause pollution or nuisance as defined in Sections 13050(l) and 13050(m) of Division 7 of the California Water Code, respectively.
2. A minimum depth of two (2) feet of freeboard shall be maintained at all times in percolation/storage ponds.
3. The Discharger shall not accept waste in excess of the design treatment capacity of the disposal system.
4. 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.
5. Percolation/storage 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.
6. Public contact with non-disinfected wastewater shall be precluded through such means as fences, signs, and other acceptable alternatives.
7. Objectionable odors originating at the WRP shall not be perceivable beyond the limits of the WRP and disposal area.
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, undisinfectd secondary recycled water shall not take place within 150 feet of any domestic water supply well.

D. Provisions

Recycled Water

1. 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 Water Board's Executive Officer of any changes regarding the location and quantity of recycled water provided to individual customers.
2. 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.
3. The Discharger shall conduct a cross-connection control test, at least once every four (4) years. The cross-control tests shall be conducted by an American Waterworks Association (AWWA) certified cross-connection control program specialist or equivalent. Prior to conducting the test the Discharger shall notify the CDPH and the Riverside County Department of Environmental Health. Results of the cross-connection test shall be submitted to the Regional Water Board, CDPH and County Department of Health Services within 30 days of completion or the next monthly monitoring and reporting program report.
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.
5. 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.
6. 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.
7. The delivery or use of recycled water shall be in conformance with the reclamation criteria contained in CCR, 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.
8. The Discharger shall not deliver recycled water for reuse to those users whom, by reason of their operational practices, may cause a nuisance associated with wastewater or otherwise contribute to the violation of the requirements of this Board Order.
9. Prior to delivering recycled water to any new user, the Discharger shall submit to the Regional Water Board a report discussing any new distribution system being constructed

by the Discharger to provide service to the new user and plans to assure that no untreated or inadequately treated wastewater will be delivered to the new user.

10. Recycled water shall not be delivered to any new user who has not first submitted a Report of Waste Discharge and has received a Waste Discharge Requirements permit from the Regional Water Board and approval from CDPH.
11. 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.
12. Irrigated areas shall be properly managed to minimize ponding.
13. Recycled water shall not be used as domestic supply water or intentionally used as animal water supply.
14. 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.

Standard Provisions

15. 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, § 13000 et seq.), and is grounds for enforcement action.
16. The Discharger shall comply with Monitoring and Reporting Program (MRP) R7-2013-0062, and future revisions thereto, incorporated herein and made part of this Order by reference, as specified by the Regional Water Board's Executive Officer.
17. The Discharger shall not cause degradation of any water supply in accordance with State Water Board Resolution 68-16.
18. Standby power generating facilities shall be available to operate the plant during a commercial power failure.
19. Adequate measures shall be taken to assure that flood or surface drainage waters do not erode or otherwise render portions of the discharge facilities inoperable.
20. The WRP shall be supervised and operated by persons possessing certification of appropriate grade pursuant to Section 3680, Chapter 26, Division 3, Title 23, CCR.
21. The Discharger shall at all times properly operate and maintain all systems and components of collection, treatment and control, installed or used by the Discharger to achieve compliance with this Board Order. Proper operation and maintenance includes effective performance, adequate process controls, and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities/systems when necessary to achieve compliance with this Board Order. All systems in service or reserved shall be inspected and maintained on a regular basis. Records of inspections and maintenance shall be retained, and made available to the Regional Water Board's

Executive Officer on request.

22. 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.
23. The Discharger shall allow the Regional Water Board, or an authorized representative, upon presentation of credentials and other documents as may be required by law, to:
 - a. Enter the premises regulated by this Board Order, or the place where records are kept under the conditions of this Board Order;
 - b. Have access to and copy, at reasonable times, records kept under the conditions of this Board Order;
 - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Board Order; and
 - d. Sample or monitor at reasonable times, for the purpose of assuring compliance with this Board Order or as otherwise authorized by the California Water Code, any substances or parameters at this location.
24. 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.
25. Disposal of oil and grease, biosolids, screenings, and other solids collected from liquid wastes shall be pursuant to Title 27, and the review and approval of the Regional Water Board's Executive Officer.
26. Any proposed change in use or disposal of biosolids requires the approval of the Regional Water Board's Executive Officer, and U.S. Environmental Protection Agency Regional Administrator, who must be notified at least 90 days in advance of the change.
27. Sludge use and disposal shall comply with Federal and State laws and regulations, including permitting requirements, and technical standards in 40 CFR Part 503. If the State and Regional Water Boards are delegated the authority to implement 40 CFR Part 503 regulations, this Order may be revised to incorporate appropriate time schedules and technical standards. The Discharger shall comply with the standards and time schedules in 40 CFR part 503, whether or not part of this Order.
28. In the event that significant volumes of industrial wastewater are discharged to the wastewater treatment plant, the discharger shall develop and implement an approved Industrial Pretreatment Program in accordance with the applicable Federal Pretreatment Regulations in 40 CFR part 403.
29. The Discharger shall provide a report to the Regional Water Board when it determines that the plant'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 WRP

reaches design capacity.

30. Prior to implementing a modification that results in a material change in the quality or quantity of wastewater treated or discharged, or a material change in the location of discharge, the Discharger shall report all pertinent information in writing to the Regional Water Board, and obtain revised requirements.
31. Prior to a change in ownership or management of WRP, the Discharger shall transmit a copy of this Board Order to the succeeding owner/operator, and forward a copy of the transmittal letter to the Regional Water Board.
32. The Discharger shall provide adequate notice to the Regional Water Board's 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.
 - d. Adequate notice shall include information on the quality and quantity of effluent introduced and anticipated impact of the change on the quantity of the discharger's effluent and/or sludge.
33. The Discharger shall report orally, any noncompliance that may endanger human health or the environment. The noncompliance shall be reported immediately to the Regional Water Board'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 Regional 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 WRP or collection system to the Regional Water Board office in accordance with the above time limits.

34. 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 Regional Water Board's Executive Officer, or if required by an applicable standard for sludge use and disposal.
35. The Discharger is the responsible party for the waste discharge requirements and the monitoring and reporting program for the facility. The discharger shall comply with all conditions of these waste discharge requirements. Violations may result in enforcement actions, including Regional Board Orders or court orders, requiring corrective action or imposing civil monetary liability, or in modification or revocation of these waste discharge requirements by the Regional Water Board.
36. 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 Regional 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 Regional Water Board ten (10) days in advance.
37. In the event of an unanticipated by-pass, the Discharger shall immediately report the incident to the Regional Water Board. During non-business hours, the Discharger shall leave a message on the Regional Water Board's 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.

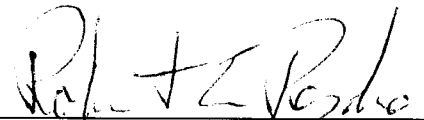
Limitations

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

39. 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.
40. This Board Order may be modified, rescinded, or reissued, for cause. The filing of a request by the Discharger for a Board Order modification, rescission or reissuance, or notification of planned changes or anticipated noncompliance, does not stay any Board Order condition. Causes for modification include a change in land application plans, or sludge use or disposal practices, and adoption of new regulations by the State or Regional Water Board (including revisions to the Basin Plan), or Federal government.

I, Robert Perdue, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, Colorado River Basin Region, on September 19, 2013.

Ordered By:



ROBERT PERDUE
Executive Officer

9/19/13
Date

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

MONITORING AND REPORTING PROGRAM R7-2013-0062
FOR
COACHELLA VALLEY WATER DISTRICT, OWNER/OPERATOR
PALM DESERT COUNTRY CLUB WASTEWATER RECLAMATION PLANT NO. 9
Palm Desert - Riverside County

Location of Wastewater Treatment Facilities and Discharges:
SW 1/4 of Section 13, T5S, R6E, 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 (Water Code) 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 regional 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 regional 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 regional 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 § 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 regional board in accordance with Article 2.5 (commencing with § 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 R7-2013-0062. 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 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 Regional 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 U. S. Environmental Protection Agency approved procedures. Unless otherwise approved by the Regional Water Board's Executive Officer, all analyses shall be conducted by a laboratory certified by the California Department of Public Health. All analyses shall be conducted in accordance with the latest edition of the "Guidelines Establishing Test Procedures for Analysis of Pollutants" (40 CFR Part 136), promulgated by the USEPA.
8. 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 Regional 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.
9. Samples shall be collected at the location specified in the WDRs. If no location is specified, sampling shall be conducted at the most representative sampling point available.
10. Given the monitoring frequency prescribed by MRP R7-2013-0062, 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.

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

Influent Monitoring

Influent to the WRP shall be monitored according to the following schedule:

| <u>Constituent</u> | <u>Units</u> | <u>Type of Sample</u> | <u>Sampling Frequency</u> | <u>Reporting Frequency</u> |
|-------------------------------------|--------------|-----------------------|---------------------------|----------------------------|
| 20°C CBOD ₅ ⁸ | mg/L | 24-Hr. Composite | Monthly | Monthly |
| Total Suspended Solids | mg/L | 24-Hr. Composite | Monthly | Monthly |

WRP Secondary Effluent Monitoring

The Discharger shall monitor effluent from the WRP according to the following schedule:

| <u>Constituent</u> | <u>Units</u> | <u>Type of Sample</u> | <u>Sampling Frequency</u> | <u>Reporting Frequency</u> |
|--|--------------------|--|---------------------------|----------------------------|
| Flow (Total Plant Effluent) | MGD | Measurement | Daily | Monthly |
| 20° C BOD ₅ | mg/L | 24-Hr. Composite 4 grab samples in 8-hour period | Weekly | Monthly |
| Total Suspended Solids | mg/L | 24-Hr. Composite 4 grab samples in 8-hour period | Weekly | Monthly |
| Settleable Solids | mg/L | Grab at peak flow | Weekly | Monthly |
| pH | pH units | Grab | Weekly | Monthly |
| Dissolved Oxygen ⁹ | mg/L | Grab | Quarterly | Quarterly |
| Total Dissolved Solids | mg/L | Grab | Quarterly | Quarterly |
| Volatile Organic Compounds ¹⁰ | µg/L ¹¹ | Grab | Annually | Annually |

Disinfected Secondary-23 Recycled Water

⁸ CBOD₅ – Carbonaceous Biochemical Oxygen Demand

⁹ Dissolved Oxygen shall be monitored at the upper (one foot or less) layer of the percolation/storage ponds.

¹⁰ Analysis of Volatile Organic Compounds is to be accomplished using the USEPA test methods 601 and 602 or 624

¹¹ µg/L – micrograms per Liter

Disinfected secondary-23 recycled water used for irrigation shall monitor according to the following schedule:

| <u>Constituent</u> | <u>Units</u> | <u>Type of Sample</u> | <u>Sampling Frequency</u> | <u>Reporting Frequency</u> |
|--|--------------|-----------------------|---------------------------|----------------------------|
| Wastewater volume used for irrigation at each location | MGD | Measurement | Daily | Quarterly |
| Total Coliforms | MPN/100mL | Grab | Daily | Quarterly |
| Chlorine Residual | mg/L | Grab | Daily | Quarterly |
| Nitrate (NO ₃ ⁻ N) as Nitrogen | mg/L | Grab | Quarterly | Quarterly |
| Nitrite (NO ₂ ⁻ N) as Nitrogen | mg/L | Grab | Quarterly | Quarterly |
| Ammonia (NH ₃) as Nitrogen | mg/L | Grab | Quarterly | Quarterly |
| Priority Pollutants ¹² | µg/L | Grab | Once every five years | Once every five years |

Water Supply to the Community

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

| <u>Constituent</u> | <u>Units</u> | <u>Type of Sample</u> | <u>Sampling Frequency</u> | <u>Reporting Frequency</u> |
|------------------------|--------------|-----------------------|---------------------------|----------------------------|
| Total Dissolved Solids | mg/L | Grab | Annually | Annually |

Sludge Monitoring

The Discharger shall report quarterly on the total quantity, location and method of disposal of all sludge and similar solid materials being produced at the WRP. If no sludge is disposed of during the quarter being reported, the Discharger shall state "No Sludge Removed" in the quarterly monitoring report.

B. Reporting

1. The Discharger shall inspect and document any operation/maintenance problems by inspecting each unit process. In addition, calibration of flow meters and equipment shall be performed in a timely manner and documented. Operation and Maintenance reports shall be submitted to the Regional Water Board Office annually.
2. The Discharger shall report the results of the cross-connection test in the monthly monitoring report following completion of the test.
3. 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

¹² Recycled water used for landscape irrigation shall be monitored for priority pollutants (40CFR Part 423 Appendix A) in the first year after adoption of this Order and every five years thereafter.

illustrate whether the facility is operating in compliance with WDRs. Where appropriate, the Discharger shall include supporting calculations (e.g., for monthly averages).

4. The results of any analysis taken, more frequently than required at the locations specified in this MRP shall be reported to the Regional Water Board.
5. SMR 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.
6. Each Report shall contain the following statement:

"I declare under the penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals 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 for knowing violations".

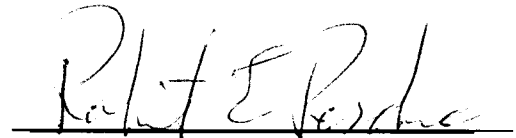
7. The SMR, and other information requested by the Regional Water Board, shall be signed by a principal executive officer or ranking elected official.
8. A duly authorized representative of the Discharger may sign the documents if:
 - a. The authorization is made in writing by the person described above;
 - 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 Regional Water Board's Executive Officer.
9. The Discharger shall report any failure in the facility (wastewater treatment plant, and collection and disposal systems). The incident shall be reported immediately to the Regional Water Board's Executive Officer 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.

Results of analyses performed shall be provided within 15 days of sample collection.

10. The Discharger shall attach a cover letter to the SMR. 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.
11. Daily, weekly, and monthly monitoring shall be included in the monthly monitoring report. Monthly monitoring reports shall be submitted to the Regional 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 to the Regional Water Board by January 15th of the following year.
12. The Discharger shall submit monitoring reports to:

California Regional Water Quality Control Board
Colorado River Basin Region
73720 Fred Waring, Suite 100
Palm Desert, CA 92260

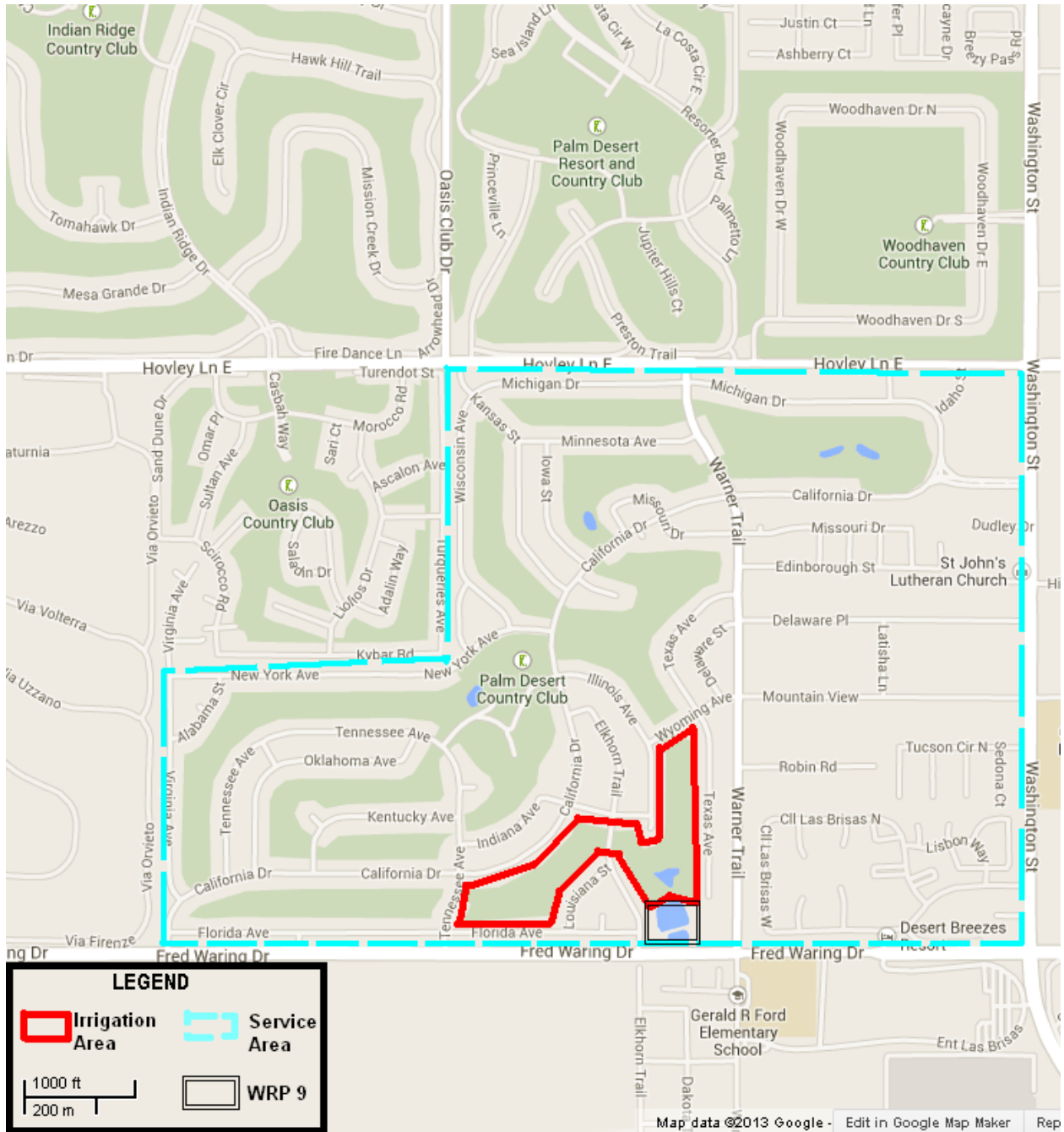
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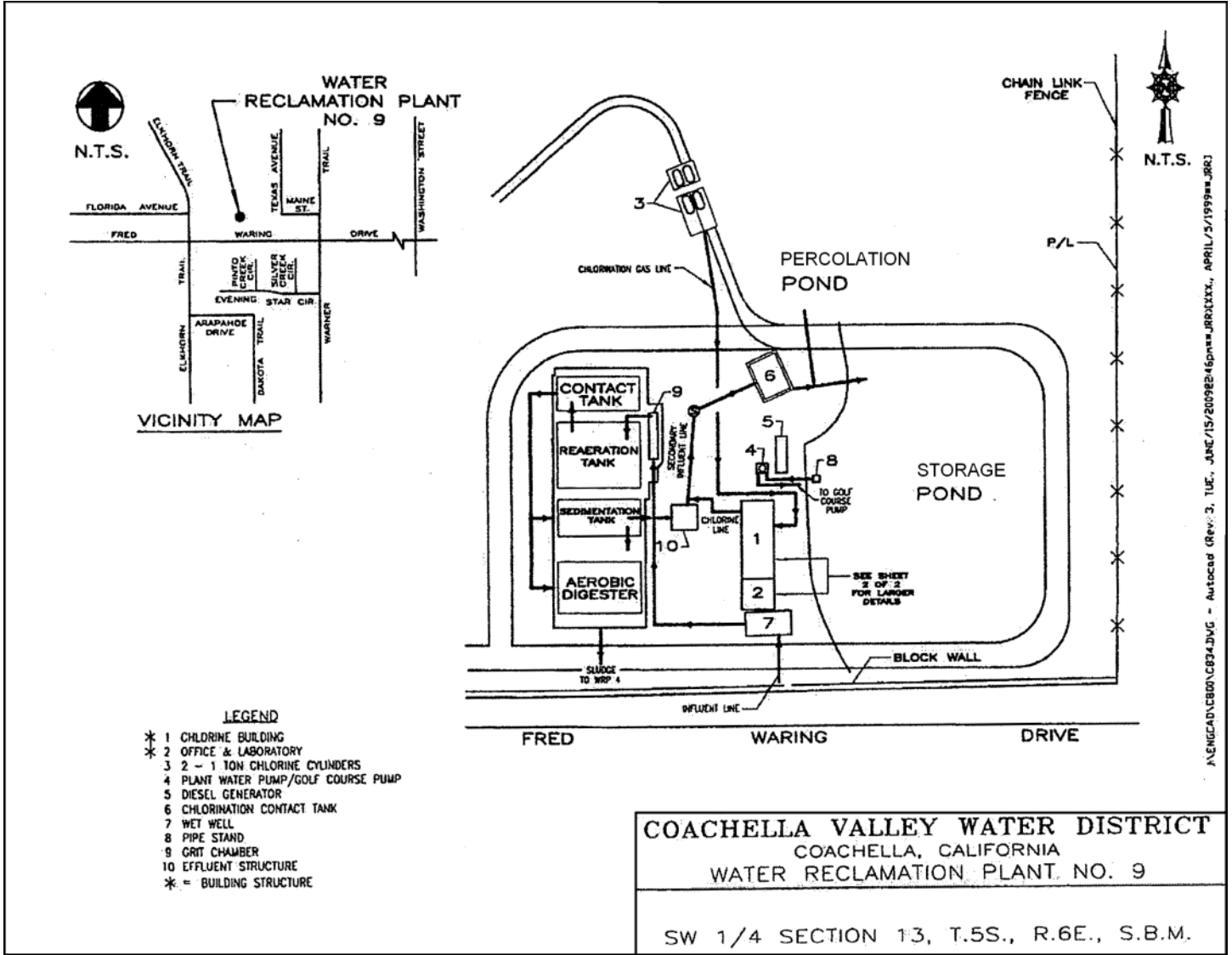
ROBERT PERDUE
Executive Officer

9/19/13
Date

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



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



PROCESS FLOW SCHEMATIC
PALM DESERT COUNTRY CLUB
WASTEWATER RECLAMATION PLANT NO. 9
Palm Desert - Riverside County