

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN DIEGO REGION

ORDER NO. R9-2012-0054

WASTE DISCHARGE REQUIREMENTS FOR THE  
SAN DIEGO COUNTY SANITATION DISTRICT, HARMONY GROVE WATER  
RECLAMATION PLANT, SAN DIEGO COUNTY

The Discharger, as described in the following table is subject to waste discharge requirements as set forth in this Order:

**Table 1. Discharger Information**

Discharger	San Diego County Sanitation District
Name of Facility	Harmony Grove Water Reclamation Plant
Facility Address	Harmony Grove Road & Country Club Drive
	San Diego, CA 92029
	San Diego County

The discharge by the San Diego County Sanitation District from the discharge points identified below in Table 2 below is subject to waste discharge requirements as set forth in this Order.

**Table 2. Discharge Location**

Discharge Point	Effluent Description	Hydrologic Area of Discharge
Recycled Water Service Area	Disinfected Tertiary Recycled Water	Escondido HSA 904.62

**Table 3. Effective Date**

This Order was adopted by the California Regional Water Quality Control Board, San Diego Region and is effective on:	November 13, 2012
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I, David W. Gibson, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Diego Region, on November 13, 2012.



**David W. Gibson, Executive Officer**

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## A. FACILITY INFORMATION

The following Discharger is subject to waste discharge requirements as set forth in this Order:

**Table 4. Facility Information**

Discharger	San Diego County Sanitation District
Name of Facility	Harmony Grove Water Reclamation Plant
Facility Address	Harmony Grove Road & Country Club Drive
	San Diego, CA 92029
	San Diego County
Facility Contact, Title and Phone	Milica Kaludjerski Schipper, Unit Manager, 858-694-2718
Mailing Address	5500 Overland Avenue, Suite 315, San Diego, CA, 92123-1248
Type of Facility	Water Reclamation Plant
Facility Design Flow	541,000 gallons per day

## B. FINDINGS

The California Regional Water Quality Control Board, San Diego Region (hereinafter San Diego Water Board), finds:

1. **Background.** The San Diego County Sanitation District (Discharger) submitted a Report of Waste Discharge, dated March 13, 2012, and applied for waste discharge requirements to discharge up to 541,000 gallons per day (gpd) of disinfected tertiary treated wastewater from the proposed Harmony Grove Water Reclamation Plant (plant) that will serve the Harmony Grove Village development. Supplemental information was submitted by the Discharger on May 8, 2012. The plant will be operated by the San Diego County Sanitation District, while the proposed recycled water distribution system will be operated by the Rincon Del Diablo Municipal Water District (Rincon Del Diablo MWD) and regulated under separate water reclamation requirements.
2. **Discharger.** For the purposes of this Order, references to the "discharger" in applicable State laws, regulations, plans, or policy are held to be equivalent to references to the Discharger herein.
3. **Project Description.** The Harmony Grove Village development project is a master-planned community located in an unincorporated area of northern San Diego County between the cities of San Marcos and Escondido. The project proposes the development of single family residential units, commercial buildings, a park, several community purpose facilities, and an equestrian area. The Harmony Grove Village development will occupy a total of 468 acres, and is bounded to the north by Mt. Whitney Road, to the south and east by Harmony Grove Road, and to the west by undeveloped land (location map included as Attachment A).
4. **Plant Description.** The proposed plant will provide secondary and tertiary treatment of domestic wastewater generated by the Harmony Grove Village development, and will be owned and operated by the San Diego County Sanitation District (Discharger). The primary treatment processes at the plant will consist of a rotating drum screen, a

bypass channel with a manually cleaned bar rake, and two equalization basins. Secondary treatment will consist of an Aero-Mod extended aeration activated sludge process made up of selector tanks, aeration tanks, and clarifiers. Tertiary treatment will be provided by granular sand media filters with flocculation, and disinfection in chlorine contact tanks. Associated solids handling processes will consist of aerobic digesters within the Aero-mod treatment process and a solid bowl decanter centrifuge.

5. **Effluent Storage.** The plant will have three means of providing effluent storage. A wet weather storage pond will be located adjacent to the north of the plant site. The wet weather pond will be sized for 84 days of storage at the average daily flow of 180,000 gpd for a total of 15,120,000 gallons (46.4 acre-feet). There will be a recycled water clear well in a concrete basin below grade at the plant site which will provide 25,000 gallons of effluent storage. There will also be another separate concrete below grade basin at the plant site, which will provide 180,000 gallons of storage for off-quality effluent.
6. **Phasing of Effluent Disposal.** Operation of the plant and phasing of effluent produced from the plant will be as follows:
  - a. Sewage generated from the first few homes occupied at the Harmony Grove Village development will be collected in the pump station wet well and transported for treatment and disposal at another wastewater treatment plant.
  - b. Initial effluent produced upon operation of the plant will be collected in an off-quality tank and trucked to another wastewater treatment plant for treatment and disposal.
  - c. Effluent produced from the Harmony Grove Reclamation Plant will initially be collected in an onsite storage tank and the effluent will be used for onsite dust control and grading. Once approval for discharge of tertiary treated recycled water has been obtained from the California Department of Public Health (CDPH), effluent produced from the plant will be pumped into Rincon Del Diablo MWD's recycled water distribution system and used for irrigation and other purposes within the Harmony Grove Village development and other sites within Rincon Del Diablo MWD's service area.
7. **Recycled Water Distribution.** Tertiary treated effluent (recycled water) produced at the plant will be pumped into the Rincon Del Diablo MWD's recycled water distribution system. The recycled water will be used for irrigation within the Harmony Grove Village development as well as other areas within the Rincon Del Diablo MWD service area. Requirements for the purveyance and distribution of recycled water produced from the plant by Rincon Del Diablo MWD will be established in separate water reclamation requirements.
8. **Recycled Water Rules and Regulations.** The Rincon Del Diablo MWD has established rules and regulations for the use of recycled water within its service area and has an ongoing recycled water distribution program. Rincon Del Diablo MWD also currently distributes recycled water from the City of Escondido's Hale Avenue Resource Recovery Facility to use areas east of the Harmony Grove Village development within the Escondido Hydrologic Subarea.

9. **Legal Authorities.** This Order is issued pursuant to section 13263 of the California Water Code. This Order serves as Waste Discharge Requirements (WDRs) pursuant to Article 4, Chapter 4, Division 7 of the Water Code.
10. **Background and Rationale for Requirements.** The San Diego Water Board developed the requirements in this Order based on information submitted as part of the Report of Waste Discharge, through monitoring and reporting programs, and other available information. The Information Sheet (Attachment C), which contains background information and rationale for Order requirements, is hereby incorporated into this Order and constitutes part of the Findings for this Order.
11. **California Environmental Quality Act.** An Environmental Impact Report (EIR) for the project was certified by the San Diego County Board of Supervisors on February 7, 2007 pursuant to requirements of the California Environmental Quality Act (CEQA) (Public Resources Code section 21000, et seq.). The EIR concludes that the proposed project will have significant unmitigatable impacts related to transportation, air quality, noise, and aesthetics. The EIR, however, also concludes that the project will have no significant or less than significant impacts related to water quality, biological resources, land use, and cultural/historical resources with mitigation measures incorporated in the proposed project.
12. **Technology-Based Effluent Limitations.** This Order contains technology based effluent limitations based on design criteria for removal of biological oxygen demand, suspended solids, and pH by secondary wastewater treatment technology.
13. **Water Quality-Based Effluent Limitations.** Section 13263 of the Water Code requires that waste discharge requirements implement the water quality control plans that have been adopted, taking into consideration the beneficial uses to be protected and the water quality objectives reasonably required for that purpose.
14. **Health Based Effluent Limitations.** California Code of Regulations (CCR) Title 22 Division 4, Chapter 3 establishes water recycling criteria. The recycled water will meet the CCR Title 22 section 60301.230 criteria for "disinfected tertiary recycled water," which is suitable for all uses of recycled water, as described in CCR Title 22 sections 60304 to 60307.
15. **Water Quality Control Plans.** The San Diego Water Board adopted a *Water Quality Control Plan for the San Diego Basin* (hereinafter Basin Plan) that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. In addition, the Basin Plan implements State Water Resources Control Board (State Water Board) Resolution No. 88-63, which established State policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. The plant and the recycled water use areas are both located within the Escondido hydrologic subarea (HSA) 904.62 of Escondido Creek hydrologic area (HA) 904.60. The beneficial uses of groundwater designated for the Escondido HSA 904.62 include municipal and domestic supply, agricultural supply, and industrial service supply.

16. **Water Quality Objectives.** The Basin Plan establishes the following groundwater quality objectives for the Escondido HSA:

**Table 5. Water Quality Objectives for Groundwater**

HYDROLOGIC SUB AREA	CONSTITUENT (mg/L or as noted)												
	(Concentrations not to be exceeded more than 10% of the time during any one year period)												
	TDS	Cl	SO <sub>4</sub>	%Na	NO <sub>3</sub>	Fe	Mn	MBAS	B	ODOR	TURB (NTU)	COLOR (UNITS)	F
Escondido 904.62	1,000	300	400	60	10	0.3	0.05	0.5	0.75	none	5	15	1.0

Notes: TDS = Total Dissolved Solids; Cl = Chloride; SO<sub>4</sub> = Sulfate; %Na = Percent Sodium; NO<sub>3</sub> = Nitrate; Fe = Iron; Mn = Manganese; MBAS = Methylene Blue Activated Substances; B = Boron; Turb = Turbidity (NTU = Nephelometric Turbidity Units); F = Fluoride.

17. **Recycled Water Policy.** The State Water Board established the Recycled Water Policy in Resolution No. 2009-0011. The Recycled Water Policy establishes criteria for recycled water projects and waste discharge requirements. The objectives of the Policy include increasing recycled water uses, streamline regulation for appropriate projects, and manage salt and nutrients on a basin-wide approach. This Order is consistent with the intent and requirements of the Recycled Water Policy.
18. **Salt and Nutrient Management Plan.** The Recycled Water Policy states that the appropriate way to address salt and nutrient issues is through the development of regional or sub-regional salt and nutrient management plans. The development of the salt and nutrient management plans is expected to be a cooperative effort among local water and wastewater entities and local salt/nutrient contributing stakeholders. As the major recycled water producer and purveyors within the Escondido groundwater basin, the City of Escondido (City) and/or Rincon Del Diablo Municipal Water District (District) should lead development of a salt and nutrient management plan for the basin. This Order, however, requires the Discharger to participate in the City's and/or the District's effort to develop a salt and nutrient management plan for the Escondido groundwater basin.
19. **Antidegradation Policy.** The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. The San Diego Water Board's Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies. As discussed in detail in the Information Sheet, the discharge described in this Order is consistent with State Water Board Resolution No. 68-16.
20. **Monitoring and Reporting.** Effluent monitoring is required to determine compliance with discharge specifications, and facility design and operation specifications. Water Code section 13267 authorizes the San Diego Water Board to require technical and monitoring program reports to assess compliance with this Order.

21. **Standard and Special Provisions.** Standard Provisions apply to all WDRs. The standard provisions contain language the San Diego Water Board finds necessary to ensure the Order is enforced, the facility is designed and operated for the protection of human health, records are maintained, and changes are reported. The Discharger must comply with all standard provisions.
22. **Notification of Interested Persons.** The San Diego Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe Waste Discharge Requirements in this Order for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of the notification are provided in the Information Sheet of this Order.
23. **Consideration of Public Comment.** The San Diego Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the Public Hearing are provided in the Information Sheet of this Order.

**THEREFORE, IT IS HEREBY ORDERED,** that the Discharger, in order to meet the provisions contained in Division 7 of the Water Code (commencing with section 13000) and regulations adopted thereunder shall comply with the following requirements in this Order:

#### **C. DISCHARGE PROHIBITIONS**

1. Discharge of waste, other than incidental runoff, to lands which have not been specifically described in this Order or in the Report of Waste Discharge, and for which valid waste discharge requirements are not in force are prohibited.
2. Discharges of treated or untreated solid or liquid waste to a navigable water or tributary of a navigable water are prohibited unless as authorized by an NPDES permit issued by the San Diego Water Board.
3. Discharges of treated or untreated solid or liquid waste directly or indirectly to any surface waters of the state (including ephemeral streams and vernal pools) are prohibited.
4. The treatment, storage, or disposal of waste in a manner that creates a pollution, contamination or nuisance, as defined by Water Code section 13050, is prohibited.
5. The average monthly effluent flow from the plant shall not exceed 541,000 gallons per day (gpd).

#### **D. DISCHARGE SPECIFICATIONS**

1. Discharge Specifications. The recycled water discharged from the plant shall not contain constituents in excess of the discharge specifications in Table 6.

**Table 6. Discharge Specifications**

Constituent	Units	Daily Maximum <sup>1</sup>	Monthly Average <sup>2</sup>	12-Month <sup>3</sup>
Chlorine Residual	Milligrams per liter (mg/L)	See Section D.2		
Chlorine-Contact Time (CT)	Milligrams minute per liter (mg-min/L)	See Section D.2		
Total Coliform Bacteria	Most Probable Number per 100 milliliters(MPN per 100 mL)	See Section D.3		
Turbidity (TURB)	Nephelometric Turbidity Units (NTU)	See Section D.4		
Biological Oxygen Demand (BOD5 @ 20°C)	mg/L	30	45	
Total Suspended Solids (TSS)	mg/L	30	45	
pH	pH units	Within the limits of 6.5-8.5 at all times		
Total Dissolved Solids (TDS)	mg/L	-	-	1,000
Chloride (Cl)	mg/L	-	-	300
Sulfate (SO <sub>4</sub> )	mg/L	-	-	400
Percent Sodium (% Na)	%	-	-	60%
Total Nitrogen (N)	mg/L	-	-	15
Iron (Fe)	mg/L	-	-	0.30
Manganese (Mn)	mg/L	-	-	0.05
Methylene Blue- Activated Substances (MBAS)	mg/L	-	-	0.5
Boron (B)	mg/L	-	-	0.75
Fluoride (F)	mg/L	-	-	2.0
Aluminum	mg/L	-	-	1
Arsenic	mg/L	-	-	0.05
Antimony	mg/L	-	-	0.006
Barium	mg/L	-	-	1
Beryllium	mg/L	-	-	0.004
Cadmium	mg/L	-	-	0.005
Cyanide	mg/L	-	-	0.2
Mercury	mg/L	-	-	0.002
Nickel	mg/L	-	-	0.1
Perchlorate	mg/L	-	-	0.006
Selenium	mg/L	-	-	0.05
Thallium	mg/L	-	-	0.002



Constituent	Units	Daily Maximum <sup>1</sup>	Monthly Average <sup>2</sup>	12-Month <sup>3</sup>
<p><sup>1</sup>The daily maximum discharge specification shall apply to the results of a single composite or grab sample representing non-overlapping 24 hour periods.</p> <p><sup>2</sup>The monthly average discharge specification shall apply to the arithmetic mean of the results of all samples collected during each calendar month.</p> <p><sup>3</sup>The 12-month average discharge specification shall apply to the arithmetic mean of the results of all samples collected during any 12 consecutive calendar month period.</p> <p>% Na = <math>\frac{\text{Na}}{(\text{Na} + \text{Ca} + \text{Mg} + \text{K})} \times 100 \%</math>,  where Sodium (Na), Calcium (Ca) Magnesium (Mg), and Potassium (K) are expressed in milliequivalent per liter.</p>				

2. The chlorine disinfection process must provide a chlorine contact time (or CT)<sup>1</sup> value of not less than 450 milligram-minutes per liter at all times with a modal contact time of at least 90 minutes, based on peak dry weather design flow.
3. The median concentration of total coliform bacteria measured in the disinfected recycled water effluent from the Facility shall not exceed a Most Probable Number (MPN) of 2.2 organisms per 100 milliliters, utilizing the bacteriological results of the last seven days for which analyses have been completed; and the number of total coliform bacteria shall not exceed a MPN of 23 organisms per 100 milliliters in more than one sample in any 30-day period. No sample shall exceed a MPN of 240 total coliform bacteria per 100 milliliters.
4. Turbidity measurement of the recycled water effluent from the Facility shall not exceed a daily average value of 2 Nephelometric Turbidity Units (NTU), shall not exceed 5 NTU more than 5 percent of the time during a 24-hour period, and shall not exceed 10 NTU at any time.

### C. PROVISIONS

1. Standard Provisions. The Discharger shall comply with all the following Standard Provisions:
  - a. The San Diego Water Board may initiate enforcement action against the Discharger, which may result in the termination of the recycled water discharge, if any person uses, transports, or stores such water in a manner which creates, or threatens to create conditions of pollution, contamination, or nuisance, as defined in Water Code section 13050.
  - b. The Discharger must comply with all conditions of this Order. Any noncompliance with this Order constitutes a violation of the Water Code and is grounds for (a) enforcement action; (b) termination, revocation and reissuance, or modification of this Order; or (c) denial of a report of waste discharge in application for new or revised waste discharge requirements.

<sup>1</sup> Defined as the product of total chlorine residual and modal contact time measured at the same point.

- c. The Discharger shall allow the San Diego Water Board, or an authorized representative, upon the presentation of credentials and other documents as may be required by law to do the following:
  - i. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this Order,
  - ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order,
  - iii. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this Order, and
  - iv. Sample or monitor, at reasonable times for the purposes of assuring compliance with this Order or as otherwise authorized by the Water Code, any substances or parameters at any location.
2. The Water Code provides that any person who intentionally or negligently discharges waste in violation of any Order issued, reissued, or amended by the San Diego Water Board shall be liable civilly in accordance with Water Code section 13350.
3. The Water Code provides that any person failing or refusing to furnish technical or monitoring program reports, as required under this Order, or falsifying any information provided in the monitoring reports is guilty of a misdemeanor and shall be liable civilly in accordance with Water Code section 13268.
4. The Discharger shall report any noncompliance that may endanger health or the environment. Pursuant to section 5411.5 of the California Health and Safety Code, any sewage overflow or spill shall be immediately reported to the County of San Diego, Department of Environmental Health. In addition, any such information shall be provided orally to the San Diego Water Board within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the Discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected; the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The San Diego Water Board may waive the written report on a case-by-case basis if the oral report has been received within 24 hours. The following occurrence(s) must be reported to the San Diego Water Board within 24 hours:
  - a. Any bypass from any portion of the treatment facility.
  - b. Any discharge of treated or untreated wastewater resulting from sewer line breaks, obstruction, surcharge, or any other circumstances.

- c. Any treatment plant upset which causes the discharge specifications of this Order to be exceeded.
  - d. Failure of disinfection system.
  - e. Effluent total coliform bacteria greater than 240 MPN/100 mL.
5. The Discharger shall report all overflow events that occur at the plant. For purposes of this reporting requirement, an overflow event is defined as a discharge of treated or untreated wastewater at a location onsite or other lands owned by the Discharger not authorized by waste discharge requirements which results from a pump station failure, line break, obstruction, surcharge, or any other operational dysfunction. This reporting requirement applies to all overflow events other than those events subject to regulation under the State Board Order No. 2006-0003-DWQ and San Diego Water Board Order No. R9-2007-0005. Overflows of the kind identified under this provision shall be reported to the San Diego Water Board with the monthly monitoring report in which the overflow occurs.
  6. Any person who, without regard to intent or negligence, causes or permits an unauthorized discharge of 50,000 gallons or more of recycled water that has been treated to at least disinfected tertiary 2.2 recycled water or 1,000 gallons or more of recycled water that is treated at a level less than disinfected tertiary 2.2 recycled water in or on any waters of the state, or causes or permits such unauthorized discharge to be discharged where it is, or probably will be, discharged in or on any waters of the state, shall, as soon as (1) that person has knowledge of the discharge, (2) notification is possible, and (3) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the San Diego Water Board in accordance with reporting requirements in Standard Provision E.6.
  7. The incidental discharge of recycled water to waters of the State is not a violation of these requirements if the incidental discharge does not unreasonably affect the beneficial uses of the water, and does not result in the receiving water exceeding an applicable water quality objective.
  8. If a need for a discharge bypass is known in advance, the Discharger shall submit prior notice (stating, at a minimum, the purpose, anticipated dates, duration, level of treatment, and volume of bypass) and, if at all possible, the San Diego Water Board shall be made aware of such notice at least 10 days prior to the date of the bypass.
  9. The Discharger shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this Order, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the noncompliance.
  10. Upon reduction, loss, or failure of the treatment facility, the Discharger shall, to the extent necessary to maintain compliance with this Order, control production or all discharges, or both, until the facility is restored or an alternative method of treatment is provided. This provision applies for example, when the primary source of power of the treatment facility is failed, reduced, or lost.

11. Except for a discharge which is in compliance with this Order, any person who, without regard to intent or negligence, causes or permits any hazardous substance or sewage to be discharged in or on any waters of the State, shall as soon as (a) that person has knowledge of the discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the County of San Diego, Department of Environmental Health Services in accordance with California Health and Safety Code section 5411.5 and the California Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State toxic disaster contingency plan adopted pursuant to Government Code Title 2, Division 1, Chapter 7, Article 3.7 (commencing with section 8574.17), and immediately notify the State Water Board or the San Diego Water Board of the discharge. This provision does not require reporting of any discharge of less than a reportable quantity as provided for under subdivisions (f) and (g) of section 13271 of the Water Code unless the Discharger is in violation of a Basin Plan prohibition.
12. Except for a discharge which is in compliance with this Order, any person who without regard to intent or negligence, causes or permits any oil or petroleum product to be discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, shall, as soon as (a) such person has knowledge of the discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the California Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State oil spill contingency plan adopted pursuant to Government Code Title 2, Division 1, Chapter 7, Article 3.7 (commencing with section 8574.1). This requirement does not require reporting of any discharge of less than 42 gallons unless the discharge is also required to be reported pursuant to Clean Water Act section 311, or the discharge is in violation of a Basin Plan prohibition.
13. A copy of this Order shall be maintained at the Facility and shall be available to operating personnel at all times.
14. The Discharger shall retain records of all monitoring information, including all calibration and maintenance records, copies of all reports required by this Order, and records of all data used to complete the application for this Order. Records shall be maintained for a minimum of five years from the date of the sample, measurement, report, or application. Records may be maintained electronically. This period may be extended during the course of any unresolved litigation regarding this discharge or when requested by the San Diego Water Board.
15. The Discharger shall furnish to the San Diego Water Board, within a reasonable time, any information which the San Diego Water Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order. The Discharger shall also furnish to the San Diego Water Board, upon request, copies of records required to be kept by this Order.

16. This Order may be modified, revoked and reissued, or terminated for cause including, but not limited to, the following:
  - a. Violation of any terms or conditions of this Order.
  - b. Obtaining this Order by misrepresentation or failure to disclose fully all relevant facts.
  - c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.
17. The filing of a request by the Discharger for the modification, revocation, reissuance, or termination of this Order, or notification of planned changes or anticipated noncompliance does not stay any condition of this Order.
18. The Discharger shall file a new Report of Waste Discharge at least 120 days prior to the following:
  - a. Addition of a major industrial waste discharge to a discharge of essentially domestic sewage, or the addition of a new process or product by an industrial facility resulting in a change in the character of the wastes.
  - b. Significant change in the treatment or disposal method (e.g., change in the method of treatment which would significantly alter the nature of the waste).
  - c. Change in the disposal area from that described in the findings of this Order.
  - d. Increase in flow beyond that specified in this Order.
  - e. Other circumstances that result in a material change in character, amount, or location of the waste discharge.
  - f. Any planned change in the regulated facility or activity which may result in noncompliance with this Order.
19. This Order is not transferable to any person except after notice to the San Diego Water Board. This notice must be in writing and received by the San Diego Water Board at least 30 days in advance of any proposed transfer. The notice must include a written agreement between the existing and new Discharger containing a specific date for the transfer of this Order's responsibility and coverage between the current Discharger and the new discharger. This agreement shall include an acknowledgement that the existing Discharger is liable for violations up to the transfer date and that the new discharger is liable from the transfer date on. The San Diego Water Board may require modification or revocation and reissuance of this Order to change the name of the Discharger and incorporate such other requirements as may be necessary under the Water Code.

20. Where the Discharger becomes aware that it failed to submit any relevant facts in a Report of Waste Discharge or submitted incorrect information in a Report of Waste Discharge or in any report to the San Diego Water Board, it shall promptly submit such facts or information.

21. All applications, reports, or information submitted to the San Diego Water Board shall be signed and certified as follows:

The Report of Waste Discharge shall be signed as follows:

- a. For a corporation - by a principal Executive Officer of at least the level of Vice-President.
- b. For a partnership or sole proprietorship - by a general partner or the proprietor, respectively.
- c. For a municipality, State, federal or other public agency - by either a principal Executive Officer or ranking elected official.

22. All other reports required by this Order and other information required by the San Diego Water Board shall be signed by a person designated in paragraph (a) of this provision, or by a duly authorized representative of that person. An individual is a duly authorized representative only if all of the following are true:

- a. The authorization is made in writing by a person described in paragraph (a) of this provision.
- b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, and
- c. The written authorization is submitted to the San Diego Water Board.
- d. Any person signing a document under this section shall make the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments 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 fine and imprisonment."

23. The Discharger shall submit reports required under this Order or other information required by the San Diego Water Board to the following address:

California Regional Water Quality Control Board  
San Diego Region  
9174 Sky Park Court, Suite 100  
San Diego, California 92123  
Attn: Supervisor, Land Discharge Unit

**F. Special Provisions. Facility Design and Operation Specifications.**

1. The Discharger shall, at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with conditions of this Order. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this Order.
2. The Discharger shall submit a certification report either within 180 days of adoption of the Order, or within 180 days of completion of construction of the plant in the event that the construction of the plant has not been completed within 180 days of adoption of the Order. The report shall certify that the treatment and disposal facilities have adequate capacity for the full design flow for secondary and tertiary treatment. The report must also certify the adequacy of each component of the treatment, storage, and disposal facilities. The certification report shall contain a requirement-by requirement analysis based on acceptable engineering practices, of how the process and physical designs of the facilities will ensure compliance with the Order. The design engineer shall affix their signature and engineering license number to the certification report.
  - a. Prior to any changes in the treatment facilities, the Discharger shall prepare an engineering report conforming to CCR Title 22 section 60323. The engineering report shall be submitted to the CDPH, County DEH, and San Diego Water Board for review and response.
  - b. Disinfection of recycled water shall comply with all requirements of CCR Title 22, Division 4. Disinfection may be accomplished by either:
    - i. A chlorine disinfection process that provides a CT (chlorine concentration times modal contact time) value of not less than 450 mg-min/liter at all times with a modal chlorine contact time of at least 90 minutes based on peak dry weather design flow where the chlorine residual is sampled at the same point determined to meet the modal chlorine contact time requirement; or
    - ii. A disinfection process, that, when combined with the filtration process, has been demonstrated to reduce the concentration of plaque-forming units of F-specific bacteriophage MS2, or polio virus, per unit volume of water in the wastewater to one hundred thousandths (1/100,000) of the initial concentration in the filter influent throughout the range of qualities of wastewater that will occur during the recycling process. A virus that is at least as resistant to disinfection as polio virus may be used for purposes of the demonstration.

- c. A copy of the facility operations manual shall be maintained at the plant and shall be available to operation personnel and San Diego Water Board staff at all times. The following portions of the operations manual shall be posted at the treatment plant as a quick reference for treatment plant operators.
  - i. Alarm set points for secondary turbidity, tertiary turbidity, and chlorine residual.
  - ii. Levels at which flow will be diverted for secondary turbidity, tertiary turbidity, and chlorine residual.
  - iii. When to divert flow for high daily and weekly median total coliform.
  - iv. When the authorities (CDPH, County DEH, San Diego Water Board) will be notified of a diversion.
  - v. Names and numbers of those authorities to be notified in case of a diversion.
  - vi. Frequency of calibration for turbidity meters and chlorine residual analyzers.
- d. The Facility shall be supervised and operated by persons possessing certificates of appropriate grade pursuant to CCR Title 23, Chapter 3, Subchapter 14.
- e. All waste treatment, storage and purveyance facilities shall be protected against 100-year peak stream flows as defined by the San Diego County flood control agency.
- f. All wastewater and recycled water storage facilities shall be protected against erosion, overland runoff, and other impacts resulting from a 100-year, 24-hour frequency storm.

### 3. Salt and Nutrient Management Plan

The Discharger must participate as a stakeholder in developing a salt and nutrient management plan for the Escondido groundwater basin.

4. The Discharger shall comply with Monitoring and Reporting Program No. R9-2012-0054 and future revisions thereto as specified by the San Diego Water Board. Monitoring results shall be reported at the frequency specified in Monitoring and Reporting Program No. R9-2012-0054.
5. The Discharger shall also provide copies of quarterly, semiannual, and annual monitoring reports,<sup>2</sup> submitted to the San Diego Water Board, to Rincon Del Diablo MWD.

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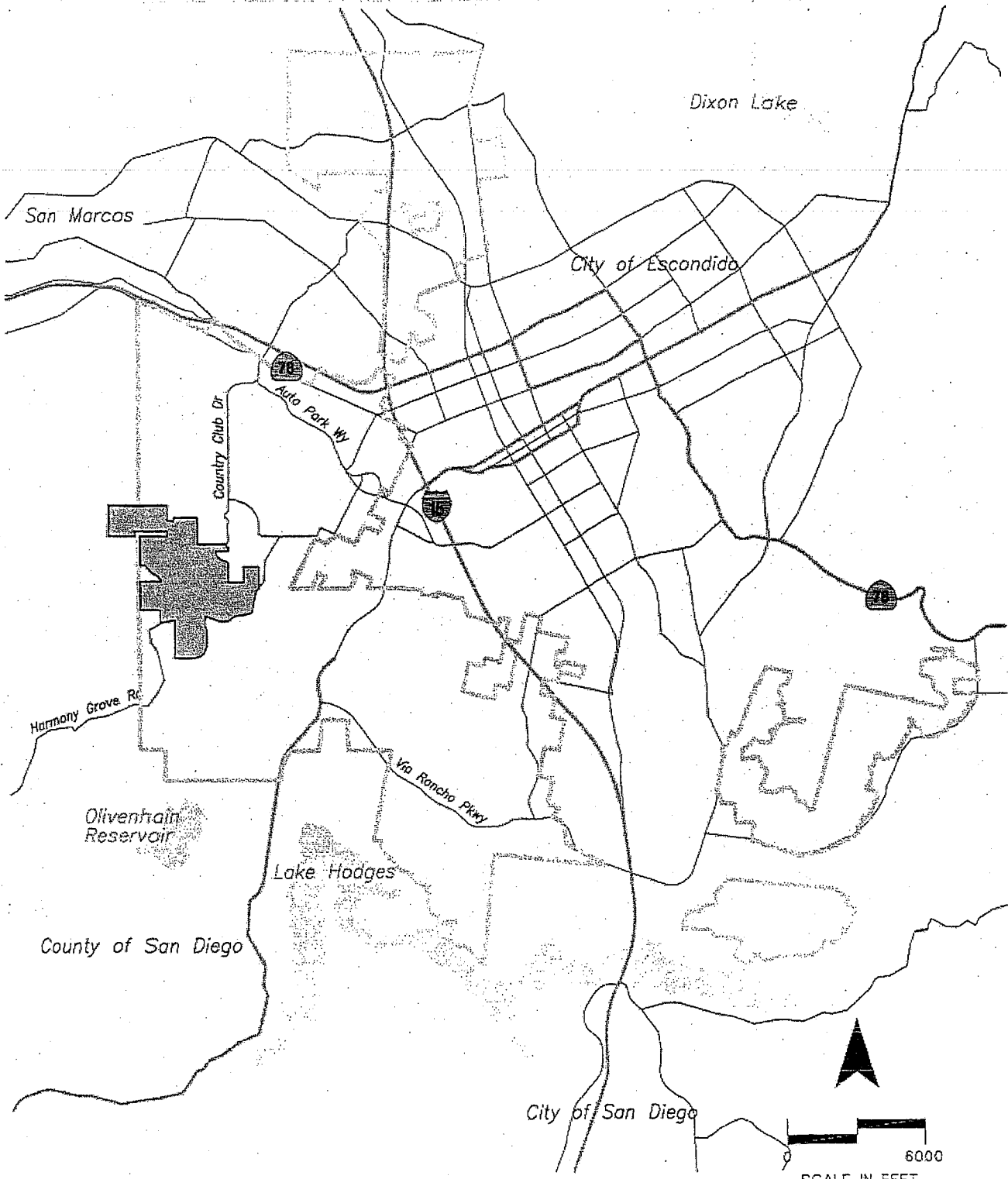
<sup>2</sup> Submitting copies of monitoring reports to Rincon Del Diablo MWD will enable Rincon Del Diablo MWD and its recycled water users monitor levels of nitrogen and other nutrients in recycled water.


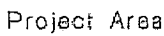


**G. NOTIFICATIONS**

1. This Order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, nor protect the Discharger from liability under federal, State or local laws, nor create a vested right for the Discharger to continue the waste discharge.
2. These requirements have not been officially reviewed by the United States Environmental Protection Agency and are not issued pursuant to CWA section 402.
3. The provisions of this Order are severable, and if any provision of this Order, or the application of any provision of this Order to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Order, shall not be affected thereby.
4. This Order becomes effective on the date of adoption by the San Diego Water Board.

ATTACHMENT A – MAP



 Rincon del Diablo Improvement District Boundary  
 Project Area

**PROJECT VICINITY**

MONITORING AND REPORTING PROGRAM NO. R9-2012-0054

SAN DIEGO COUNTY SANITATION DISTRICT, HARMONY GROVE WATER  
RECLAMATION PLANT, SAN DIEGO COUNTY

This Monitoring and Reporting Program (MRP) is issued to the San Diego County Sanitation District pursuant to Water Code Section 13267, which authorizes the California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) to require technical and monitoring reports.

**I. GENERAL MONITORING PROVISIONS**

- A. Samples and measurements collected as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be collected at the monitoring points specified in this Monitoring and Reporting Program (MRP) and, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water or substance. Monitoring points shall not be changed without notifying, and receiving approval from the San Diego Water Board for the proposed monitoring location change.
- B. Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to ensure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than 10 percent from true discharge rates throughout the range of expected discharge volumes.
- C. Monitoring must be conducted according to United States Environmental Protection Agency (USEPA) test procedures approved under 40, Code of Federal Regulations (CFR), Part 136, "Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act" as amended, unless other test procedures have been specified in this MRP.
- D. Unless otherwise permitted by the San Diego Water Board, all analyses shall be conducted at a laboratory certified to perform such analyses by the California Department of Public Health (CDPH). The Discharger must use a laboratory capable of producing and providing quality assurance/quality control (QA/QC) records for San Diego Water Board review. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his/her laboratory and shall sign all reports submitted to the San Diego Water Board.

- E. Any report presenting new analytical data is required to include the complete laboratory and analytical report(s). The laboratory analytical report must be signed by the laboratory director and contain:
1. A complete sample analytical report.
  2. A complete laboratory quality assurance/quality control (QA/QC) report.
  3. A discussion of the QA/QC data.
  4. A transmittal letter that shall indicate whether or not all the analytical work was supervised by the director of the laboratory, and contain the following statement, "All analyses were conducted at a laboratory certified for such analyses by the CDPH in accordance with current USEPA procedures."
- F. Specific methods of analysis must be identified in the Discharger's monitoring reports. If the Discharger proposes to use methods or test procedures other than those included in the most current version of 40 CFR 136, *Guidelines Establishing Test Procedures for the Analysis of Pollutants; Procedures for Detection and Quantification*, the exact methodology must be submitted for review and must be approved by the San Diego Water Board prior to use.
- G. Monitoring results must be reported on discharge monitoring report forms approved by the San Diego Water Board.
- H. If the Discharger monitors any pollutants more frequently than required by this MRP, using test procedures approved under 40 CFR, Part 136, or as specified in this MRP, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the Discharger's monitoring report. The increased frequency of monitoring shall also be reported.
- I. 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 and copies of all reports required by this MRP, and records of all data used to complete the application for this MRP. Records shall be maintained for a minimum of five years from the date of the sample, measurement, report or application. This period may be extended during the course of any unresolved litigation regarding this discharge or when required by the San Diego Water Board. Records of monitoring information shall include the following:
1. The date, exact place, and time of sampling or measurements.
  2. The individual(s) who performed the sampling or measurements.
  3. The date(s) analyses were performed.
  4. The individual(s) who performed the analyses.

5. The analytical techniques or methods used.
  6. The results of such analyses.
- J. All monitoring instruments and devices that are used by the Discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy.
- K. The Discharger shall report all instances of noncompliance not reported under Standard Provision E.4 of Order No. R9-2012-0054 at the time monitoring reports are submitted. The reports shall contain the information described in Provision E.6.
- L. The monitoring reports shall be signed by an authorized person as required by Standard Provision E.22 of Order No. R9-2012-0054.
- M. A composite sample is defined as a combination of at least eight sample aliquots of at least 100 milliliters, collected at periodic intervals during the operating hours of a facility over a 24-hour period. For volatile pollutants, aliquots must be combined in the laboratory immediately before analysis. The composite must be flow proportional; either the time interval between each aliquot or the volume of each aliquot must be proportional to either the stream flow at the time of sampling or the total stream flow since the collection of the previous aliquot. Aliquots may be collected manually or automatically.
- N. A grab sample is an individual sample of at least 100 milliliters collected at a randomly selected time over a period not exceeding 15 minutes.
- O. The Discharger shall identify all missing or non-valid monitoring or sampling results in monitoring reports submitted. All instances of missing or non-valid results must be accompanied by an explanation of their root cause and the steps the Discharger has or will take to prevent future instances. Missing or non-valid results may be considered violations of Order No. R9-2012-0054 that could result in enforcement action depending on the frequency of such instances and efforts by the Discharger to prevent such failures.

## II. DISCHARGE MONITORING REQUIREMENTS

The Discharger shall monitor the effluent at a point between the end of the chlorine contact basin and the entry to the tertiary effluent wet well in accordance with Table 1 below. Effluent samples collected to determine turbidity shall be located after the gravity filters.

**Table 1. Effluent Monitoring**

Parameter	Units	Sample Type	Minimum Sampling Frequency <sup>a,b</sup>	Reporting Frequency
Flow Rate	mgd	Continuous	Continuous	Monthly
Chlorine Residual <sup>c</sup>	mg/L	Continuous	Continuous	Monthly
Chlorine-Contact Time (CT) <sup>d</sup>	mg-min/L	Continuous	Continuous	Monthly
Total Coliform Bacteria <sup>e</sup>	MPN/100 mL	Grab	Daily	Monthly
Turbidity <sup>f</sup>	NTU	Continuous	Continuous	Monthly
Biological Oxygen Demand (BOD <sub>5</sub> @ 20°C)	mg/L	Composite	Weekly	Monthly
Total Suspended Solids	mg/L	Composite	Weekly	Monthly
pH	pH units	Grab	Weekly	Monthly
Chloride (Cl)	mg/L	Composite	Quarterly	Quarterly
Sulfate (SO <sub>4</sub> )	mg/L	Composite	Quarterly	Quarterly
Percent Sodium (% Na)	%	Composite	Quarterly	Quarterly
Nitrate (NO <sub>3</sub> )	mg/L	Composite	Quarterly	Quarterly
Total Nitrogen	mg/L	Composite	Quarterly	Quarterly
Iron (Fe)	mg/L	Composite	Quarterly	Quarterly
Manganese (Mn)	mg/L	Composite	Quarterly	Quarterly
Methylene Blue-Activated Substances (MBAS)	mg/L	Composite	Quarterly	Quarterly
Boron (B)	mg/L	Composite	Quarterly	Quarterly
Fluoride (F)	mg/L	Composite	Quarterly	Quarterly
Total Dissolved Solids (TDS)	mg/L	Composite	Quarterly	Quarterly
Aluminum	mg/L	Composite	Once every 5 years	Once every 5 years
Barium	mg/L	Composite	Once every 5 years	Once every 5 years
Perchlorate	mg/L	Composite	Once every 5 years	Once every 5 years
Priority Pollutants <sup>g</sup>	µg/L	Composite	Semiannually	Annually

Parameter	Units	Sample Type	Minimum Sampling Frequency <sup>a,b</sup>	Reporting Frequency
<p>a. The Recycled Water Agency shall increase the sampling frequency from weekly to daily, from quarterly to monthly, and from once every 5 years to annually for any constituent that exceeds the Discharge Specifications of the Order. The increased frequency of monitoring shall continue until the Recycled Water Agency achieves compliance with the Specification for three consecutive periods, at which point the Recycled Water Agency shall resume sampling at the specified frequency.</p> <p>b. Weekly is defined as a calendar week (Sunday through Saturday). Monthly is defined as a calendar month. Quarterly is defined as a period of three consecutive calendar months beginning on January 1, April 1, July 1, or October 1. Semiannually is defined as a period of six consecutive calendar months beginning on January 1 or July 1. Annually is defined as a period of 12 consecutive calendar months beginning on January 1.</p> <p>c. Chlorine residual concentrations shall be recorded by a continuous recording meter at a location in the pipeline where the effluent has experienced 90 minutes or more of modal contact time at a maximum flow. The minimum daily chlorine residual concentrations shall be reported monthly.</p> <p>d. Calculated CT (chlorine concentration multiplied by modal contact time) values shall be determined and recorded continuously. The daily minimum CT value shall be reported monthly. The Discharger shall report monthly the date (s), value(s), time and duration when the CT value falls below 450 mg-min/L, and/or the modal contact time falls below 90 minutes.</p> <p>e. Samples for total coliform bacteria shall be collected at least daily and at a time when wastewater characteristics are most demanding on the treatment facilities and disinfection procedures. Results of daily coliform bacteria monitoring, running 7-day median determination shall be reported monthly.</p> <p>f. Effluent tertiary turbidity analyses shall be conducted continuously using a continuous monitoring and recording turbidimeter. Compliance with the daily average operating filter effluent turbidity limit of 2 NTU shall be determined using levels of recorded turbidity levels at a minimum of four-hour intervals over a 24-hour period. Compliance with the turbidity standard of not exceeding 5 NTU more than 5 percent of the time over a 24-hour period shall be determined using the levels of recorded turbidity taken at intervals of no more than 1.2 hours over a 24-hour period. Should the continuous turbidimeter and/or recorder fail, grab sampling at a minimum frequency of 1.2 hours may be substituted for a period of up to 24 hours. The Recycled Water Agency shall report quarterly results of four-hour turbidity readings, average effluent turbidity (24-hours), 95 percentile effluent turbidity (24-hours), and daily maximum turbidity readings.</p> <p>g. Monitoring Priority Pollutants as required by the Recycled Water Policy Resolution No. 2009-0011, See section 7.B(4).</p>				

### III. REPORTING REQUIREMENTS

- A. The Discharger shall report in the Self-Monitoring Report (SMR) the results for all monitoring specified in Section II (Discharge Monitoring Requirements) of this MRP. The Discharger shall submit quarterly SMRs including the results of all required monitoring using test methods approved by the U.S. Environmental Protection Agency or other test methods specified in this Order. If the Discharger monitors any pollutant more frequently than required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR.
- B. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule:

**Table 2. Monitoring Periods and Reporting Schedule**

Sampling Frequency	Monitoring Period	SMR Due Date
Continuous	All	Submit with monthly SMR
Daily	Daily	Submit with monthly SMR
Monthly	January, February, March, April, May, June, July, August, September, October, November, December	By the first day of the second month following sampling (i.e March 1 for January)
Quarterly	January 1 through March 31	May 1
	April 1 through June 30	August 1
	July 1 through September 30	November 1
	October 1 through December 31	February 1
Semiannually	January 1 through June 30	September 1
	July 1 through December 31	March 1
Annually	January 1 through December 31	March 1
5 years	5 year period	March 1

Reporting limits shall be lower than or equal to the discharge specifications. Constituents not detected below the method detection limit shall be reported as non-detect with the applicable value (i.e. ND<0.05 mg/L). Constituents detected between the laboratory reporting limit and method detection limit shall be reported as "estimated concentrations" or noted with appropriate laboratory flags.

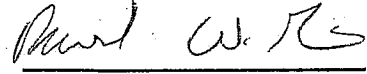
- C. The Discharger shall submit SMRs in accordance with the following requirements:
1. The Discharger shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the facility is operating in compliance with interim and/or final effluent limitations.
  2. 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 for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation.
  3. The Discharger shall include historical data in either tabular or graphical format for parameters in section II of this MRP.



4. SMRs must be submitted to the San Diego Water Board, signed and certified as required by Standard Provision E:22 of this Order. SMRs must be submitted to the address listed below:

California Regional Water Quality Control Board  
San Diego Region  
9174 Sky Park Court, Suite 100  
San Diego, California 92123  
Attn: Supervisor, Land Discharge Unit

Ordered by:



David W. Gibson  
Executive Officer

DATE: November 13, 2012