

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION**

December 16, 2015
Item No. 6
Supporting Document
No. 7

TENTATIVE ORDER NO. R9-2015-0104

**MASTER RECYCLING PERMIT
FOR THE VALLEY CENTER MUNICIPAL WATER DISTRICT,
WOODS VALLEY RANCH WATER RECLAMATION FACILITY, 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	Valley Center Municipal Water District
Name of Facility	Woods Valley Ranch Water Reclamation Facility
Facility Address	27743 Valley Center Rd
	Valley Center, CA 92082
	San Diego County

The discharge by Valley Center Municipal Water District from the discharge points identified in Table 2 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 reuse sites.	Disinfected Tertiary Recycled Water	Valley Center HSA (903.14) of the Lower San Luis Rey HA (903.10)

Table 3. Effective Date

This Order was adopted by the California Regional Water Quality Control Board, San Diego Region and is effective on:	December 16, 2015
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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 December 16, 2015.

TENTATIVE

David W. Gibson, Executive Officer

Table of Contents

I.	Facility Information.....	3
II.	Findings.....	3
III.	Discharge Prohibitions.....	5
IV.	Discharge Specifications.....	5
V.	Recycled Water Purveyance Requirements.....	7
VI.	Provisions	9
VII.	Special Provisions: Facility Design and Operation Specifications.....	14
VIII.	Notifications.....	17

List of Tables

Table 1.	Discharger Information.....	1
Table 2.	Discharge Location.....	1
Table 3.	Effective Date.....	1
Table 4.	Facility Information.....	3
Table 5.	Discharge Specifications.....	5

List of Attachments

Attachment A – Map	A-1
Attachment B – Rules and Regulations for Recycled Water Use.....	B-1
Attachment C – Information Sheet.....	C-1
Attachment D – Monitoring and Reporting Program.....	D-1

I. FACILITY INFORMATION

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

Table 4. Facility Information

Discharger	Valley Center Municipal Water District
Name of Facility	Woods Valley Ranch Water Reclamation Facility
Facility Address	27743 Valley Center Road
	Valley Center, CA 92082
	San Diego County
Facility Contact, Title and Phone	Mr. Gary T. Arant, General Manager (760) 735-4500
Mailing Address	29300 Valley Center Road, Valley Center, CA 92082
Type of Facility	Wastewater Treatment Plant
Facility Design Flow	0.275 million gallons per day (Annual Average Daily Flow)

II. FINDINGS

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

- A. **Background.** The Valley Center Municipal Water District (hereinafter VCMWD or Discharger) submitted a Report of Waste Discharge (ROWD), via email on May 26, 2015, requesting an expansion of its recycled water production from 0.147 to 0.275 million gallons per day (mgd) at the Woods Valley Ranch Water Reclamation Facility (WVRWRF) in San Diego County. The discharge of recycled water from the facility is regulated by Order No. R9-1998-009.
- B. **Legal Authorities.** This Order is issued pursuant to section 13263 and 13523.1 of the Water Code. This Order serves as a Master Recycling Permit which also includes Waste Discharge Requirements (WDRs) issued pursuant to article 4, chapter 4, division 7 of the Water Code.
- C. **Background and Rationale for Requirements.** The San Diego Water Board developed the requirements in this Order based on information in the ROWD, self-monitoring reports, water quality control plans and policies,¹ and other available information. An Information Sheet (Attachment C) was prepared for this Order, which contains background information and rationale for Order requirements. The Information Sheet is hereby incorporated into and constitutes Findings for this Order.
- D. **Antidegradation Policy.** The State Water Resources Control Board (State Water Board) established California’s Antidegradation Policy in State Water Board Resolution No. 68-16, *the Statement of Policy with Respect to Maintaining High Quality of Waters in California*. Resolution No. 68-16 requires that existing quality of

¹ Including the State Water Board’s Recycled Water Policy (2009 as modified in 2013): http://www.waterboards.ca.gov/water_issues/programs/water_recycling_policy/draft_amendment_to_policy.shtml

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 the Information Sheet, the discharge described in the Order is consistent with the Antidegradation Policy.

- E. **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.
- F. **Notification of Interested Persons.** The San Diego Water Board has notified the Discharger and known 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 (Attachment C of this Order).
- G. **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.
- H. **California Environmental Quality Act.** The VCMWD is functioning as the lead agency under the California Environmental Quality Act (CEQA). VCMWD prepared a Final Environmental Impact Report titled, *South Village Water Reclamation Project*, (State Clearinghouse #2007101049) dated April 7, 2008 and subsequent Addenda Nos. 1 and 2 to the Final EIR dated January 20, 2011 and January 25, 2013 respectively. The two Addenda were prepared to address proposed changes in facilities sites, wastewater flows, and the WVRWRF service area. A Mitigated Negative Declaration dated January 7, 2015 was prepared to assess potential environmental impacts from the North Village portion of the WVRWRF sewer service area. The Mitigated Negative Declaration concludes that the project will have less than significant impacts on water quality.
- I. **Rescission of Outdated Waste Discharge Requirements.** The Woods Valley Ranch Water Reclamation Facility (WVRWRF) is regulated under Order No. R9-1998-0009, *Waste Discharge and Water Recycling Requirements for the Valley Center Municipal Water District, Woods Valley Ranch Water Reclamation Facility, San Diego County*. Order No. R9-2015-0104 supersedes Order No. R9-1998-0009.
- J. **Water Quality Objectives.** The WVRWRF is located in the Valley Center Hydrologic Subarea (903.14). Water Quality Objectives for groundwater are not to be exceeded more than 10 percent of the time during any one year period. The water quality objectives for the Santa Maria Valley can be found in Table 3-3 of Chapter 3 of the *Water Quality Control Plan for the San Diego Basin* (Basin Plan).²

2

http://www.waterboards.ca.gov/sandiego/water_issues/programs/basin_plan/docs/update082812/Chpt_3_2012.pdf

THEREFORE, IT IS HEREBY ORDERED, that this Order supersedes Order No. R9-1998-009 upon the effective date of this Order except for enforcement purposes. In order to meet the provisions contained in division 7 of the Water Code (commencing with section 13000) and applicable regulations, it is further ordered that the Discharger comply with the requirements in this Order. If any part of this Order is subject to a temporary stay of enforcement, unless otherwise specified in the order granting stay, the Discharger shall comply with the analogous portions of the previous Order. This action does not prevent the San Diego Water Board from taking enforcement actions for past violations of the previous Order.

III. DISCHARGE PROHIBITIONS

- A. 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.
- B. Discharges of treated or untreated solid or liquid waste to waters of the United States are prohibited unless as authorized by an National Discharge Pollution Discharge Elimination System (NPDES) permit issued by the San Diego Water Board.
- C. 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.
- D. The treatment, storage, or disposal of waste in a manner that creates pollution, contamination or nuisance, as defined by Water Code section 13050, is prohibited.

IV. DISCHARGE SPECIFICATIONS

- A. The average annual effluent flow from the WVRWRF shall not exceed 0.275 mgd.
- B. The disinfected tertiary treated recycled water from the plant shall not contain constituents in excess of the discharge specifications in Table 5:

Table 5. Discharge Specifications

Constituent	Units	Daily Maximum ¹	Monthly Average ²	12-Month ³
Chlorine Residua	Milligrams per liter (mg/L)	See Section IV.C.1		
Chlorine-Contact Time (CT)	Milligrams minute per liter (mg-min/L)	See Section IV.C.1		
Total Coliform Bacteria	Most Probable Number per 100 milliliters(MPN per 100 mL)	See Section IV.C.2		
Turbidity (TURB)	Nephelometric Turbidity Units (NTU)	See Section IV.C.3		
Biological Oxygen Demand (BOD ₅ @ 20°C)	mg/L	30	45	

Constituent	Units	Daily Maximum ¹	Monthly Average ²	12-Month ³
Total Suspended Solids (TSS)	mg/L	30	45	
pH	pH units	Within the limits of 6.5-9.0 at all times		
Total Dissolved Solids (TDS)	mg/L		-	1,100
Chloride (Cl)	mg/L	-	-	300
Sulfate (SO ₄)	mg/L	-	-	400
Percent Sodium (% Na)	%	-	-	60%
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	-	-	1.0
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

¹The daily maximum discharge specification shall apply to the results of a single composite or grab sample representing non-overlapping 24 hour periods.

²The monthly average discharge specification shall apply to the arithmetic mean of the results of all samples collected during each calendar month.

³The 12-month average discharge specification shall apply to the arithmetic mean of the results of all samples collected during a calendar year.

- C. Recycled water produced from the WVRWRF shall comply with the following.
1. The chlorine disinfection process must provide a chlorine contact time (or CT)³ 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.
 2. The median density 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 an MPN of 240 total coliform bacteria per 100 milliliters.
 3. Turbidity measurement of the recycled water effluent from the WVRWRF 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.

V. RECYCLED WATER PURVEYANCE REQUIREMENTS

- A. The Discharger must develop and submit the following to the San Diego Water Board, State Water Board Division of Drinking Water (DDW), and County of San Diego Department of Environmental Health (County DEH) upon request.
1. *Rules and Regulations for Recycled Water Users* governing the design and construction of recycled water use facilities and the use of recycled water. Rules and regulations for purveyance of recycled water shall, at a minimum, include the requirements which are contained in Attachment B to this Order.
 2. A program to conduct compliance inspections of recycled water reuses sites. Inspections shall determine the status of compliance with the Discharger's approved rules and regulations for recycled water users.
 3. A report containing the information listed below. The Discharger may submit a report that covers more than one reuse site. The report shall include a detailed description of each reuse site identifying all of the information below:
 - a. The number, location, and type of facilities within the use area proposing to use domestic and recycled water. "Facility" means any type of building or structure, or defined area of specific public use that utilizes or proposes to utilize a dual plumbed system.
 - b. The average number of persons estimated to be served at each use area on a daily basis.
 - c. The specific boundaries of the proposed use site area including a map showing

³ Defined as the product of total chlorine residual and modal contact time measured at the same point.

- the location of each facility, drinking water fountain and impoundment to be served.
- d. The person or persons responsible for operation of the recycled water system at each use area.
 - e. The specific use to be made of the recycled water at each use area.
 - f. The methods to be used by the Discharger to assure that the installation and operation of the recycled system will not result in cross connections between the recycled water piping system and the potable water piping system. This shall include a description of pressure, dye, or other test methods to be used to test the system.
 - g. Plans and specifications shall include the following and shall be submitted to the DDW and County DEH:
 - i. Proposed piping system to be used.
 - ii. Pipe locations of both the recycled and potable systems.
 - iii. Type and location of the outlets and plumbing fixtures that will be accessible to the public.
 - iv. The methods and devices to be used to prevent backflow of recycled water into the public water system.
 - v. Plan notes relating to recycled water specific installation and use requirements.
- B. Prior to providing recycled water to a new use site, the Discharger shall do the following:
1. Submit for review and approval a report certifying that the project conforms to all criteria described in Recycled Water Purveyance Requirements V.A.3. The certification report shall document that all criteria described in Recycled Water Purveyance Requirements V.A.3 has been submitted to and approved by the appropriate regulatory agency. Information submitted as a supplement to this report shall document compliance with any criteria, as described by Recycled Water Purveyance Requirements V.A.3, not met through submittal of the initial report.
 2. Prior to the operation of a dual-plumbed recycled water system and annually thereafter, the Discharger shall ensure that the dual plumbed system within each facility and use area is inspected for possible cross connections with the potable water system. The recycled water system shall also be tested for possible cross connections at least once every four years. The testing shall be conducted in accordance with the method described in the report submitted pursuant to title 22,

California Code of Regulations (Cal. Code of Regs.) section 60314. The inspections and the testing shall be performed by a cross connection control specialist certified by the California-Nevada section of the American Water Works Association or an organization with equivalent certification requirements. The County DEH shall be notified at least 30 days prior to any cross connection test. A written report documenting the result of the inspection or testing for the prior year shall be submitted to the County DEH within 30 days following completion of the inspection or testing.

- C. The Discharger shall ensure the following requirements are met for all reuse sites:
1. Enforce recycled water rules and regulations.
 2. Conduct recycled water reuse site compliance inspections in accordance with the program submitted in compliance with Recycled Water Purveyance Requirements V.A.2 of this Order.
 3. Notify the DDW and the County DEH of any incidence of recycled water backflow into the potable water system as soon as possible, but in no case later than 24 hours after finding the incident.
 4. Maintain a current list of all on-site recycled water supervisors.

VI. PROVISIONS

- A. **Standard Provisions.** The Discharger shall comply with all of the following Standard Provisions.
1. 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.
 2. 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:
 - a. 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,
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order,
 - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this Order, and
 - d. 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.

- B. The Discharger shall report any noncompliance that may endanger health or the environment. Pursuant to section 5411.5 of the Health and Safety Code, any sewage overflow or spill shall be immediately reported to the County of San Diego, Department of Environmental Health to the extent permitted by federal law. 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 report shall also be provided within 5 days of the time the Discharger becomes aware of the circumstances. The written report 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:
1. Any bypass from any portion of the treatment facility.
 2. Any discharge of treated or untreated wastewater resulting from sewer line breaks, obstruction, surcharge, or any other circumstances.
 3. Any treatment plant upset that causes the discharge specifications of this Order to be exceeded.
 4. Failure of disinfection system.
 5. Disinfected tertiary effluent total coliform bacteria shall not be greater than 240 MPN/100 mL.
- C. 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.
- D. If the Discharger or end user, 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 recycled water⁴ or 1,000 gallons or more of recycled water that is treated at a level less than disinfected tertiary recycled water in

⁴ Disinfected tertiary recycled water is defined in California Code of Regulations, Title 22, Chapter 3, section 60301.230

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 Provision VI.B.

- E. 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.
- F. 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.
- G. 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.
- H. 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 has failed, is reduced, or is lost.
- I. 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 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.
- J. 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.

- K. A copy of this Order shall be maintained at the facility and shall be available to operating personnel at all times.
- L. 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.
- M. 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.
- N. This Order may be modified, revoked and reissued, or terminated for cause including, but not limited to, the following:
 - 1. Violation of any terms or conditions of this Order.
 - 2. Obtaining this Order by misrepresentation or failure to disclose fully all relevant facts.
 - 3. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.
- O. 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.
- P. The Discharger shall file a new Report of Waste Discharge at least 120 days prior to the following:
 - 1. 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.
 - 2. 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).

3. Change in the disposal area from that described in the findings of this Order.
 4. Increase in flow beyond that specified in this Order.
 5. Other circumstances that result in a material change in character, amount, or location of the waste discharge.
 6. Any planned change in the regulated facility or activity which may result in noncompliance with this Order.
- Q. 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 and forward. 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.
- R. 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.
- S. All applications, reports, or information submitted to the San Diego Water Board shall be signed and certified as follows:
1. The Report of Waste Discharge shall be signed as follows:
 - a. For a corporation by either a principal executive officer or ranking elected official; or
 - b. For a municipality, state, or federal or other public agency by either a public Executive Officer or ranking elected official.
 - c. By direction of the person designated in paragraph "a." or "b." of this provision, only if:
 - i. The authorization is made in writing by a person described in paragraph 1.a. or 1.b. of this provision; and
 - ii. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity.
 2. 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 Provision S.1. of this Order or 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 Provision S.1.
- b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity.
- c. The written authorization is submitted to the San Diego Water Board.
- d. Any person signing a document under Provision S.1 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 a fine and imprisonment."

- T. Upon adoption by the San Diego Water Board, Order No. R9-2015-0104 supersedes Order No. R9-1998-009.
- U. The Discharger shall submit reports required under this Order or other information required by the San Diego Water Board to the following address until instructed to do otherwise by the Executive Officer:

California Regional Water Quality Control Board
San Diego Region
2375 Northside Drive, Suite 100
San Diego, CA 92108
Attn: Supervisor, Land Discharge Unit

VII. SPECIAL PROVISIONS: FACILITY DESIGN AND OPERATION SPECIFICATIONS.

- A. 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.
- B. 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.
- C. The Discharger must implement the following to ensure that recycled water and fertilizer are applied in use sites at agronomic rates:⁵

⁵ Agronomic rates refers to rate of application of recycled water to plants necessary to satisfy the plants' evapotranspiration requirements, considering allowances for supplemental water (e.g., effective precipitation),

1. Monitor nutrient levels in recycled water supplies and notify end users of the nutrient value of recycled water.
 2. ~~Use fertilizers appropriately taking into account the nutrient levels in the recycled water.~~
 3. ~~Avoid overwatering of landscapes and runoff.~~
 4. Educate and train site supervisors on how to minimize the potential for runoff or over irrigation and take into account the nutrient value of the recycled water.
 5. Conduct periodic inspections of end use sites.
- D. 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.
- E. Prior to any changes in the treatment facilities, the Discharger shall prepare an engineering report conforming to title 22, Cal. Code of Regs. section 60323. The engineering report shall be submitted to the DDW, County DEH, and San Diego Water Board for review and response.
- F. Disinfection shall comply with all requirements of title 22, Cal. Code of Regs., division 4. Disinfection may be accomplished by either:
1. 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
 2. 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.

irrigation distribution uniformity, and leaching requirement, thus minimizing the movement of nutrients below the plants' root zone.

- G. 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.
1. Alarm set points for secondary turbidity, tertiary turbidity, and chlorine residual.
 2. Levels at which flow will be diverted for secondary turbidity, tertiary turbidity, and chlorine residual.
 3. When to divert flow for high daily and weekly median total coliform.
 4. When the authorities (DDW, County DEH, San Diego Water Board) will be notified of a diversion.
 5. Names and numbers of those authorities to be notified in case of a diversion.
 6. Frequency of calibration for turbidity meters and chlorine residual analyzers.
- H. The Facility shall be supervised and operated by persons possessing certificates of appropriate grade pursuant to title 23, Cal. Code of Regs., chapter 3, subchapter 14.
- I. 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.
- J. 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.
- K. The Discharger must submit a workplan, within 180 days of adoption of this Order, which will identify proposed tasks and measures it will implement as the lead agency developing a salt and nutrient management plan (SNMP) for the Valley Center HSA groundwater basins in accordance with the State Recycled Water Policy. The SNMP shall be submitted to the San Diego Water Board by December 31, 2018. The SNMP for the Valley Center HSA. Proposed tasks and measures to be implemented by the Discharger can be based on the Guidelines for Salinity/Nutrient Management Planning in the San Diego Region (guidelines).⁶ Once completed, the Discharger must implement the plan.
- L. Application of recycled water in amounts and at rates as needed for the landscape (i.e., at agronomic rates and not when the soil is saturated). Each irrigation project shall be subject to an operations and management plan, that may apply to multiple sites, that specifies the agronomic rate(s) and describes a set of reasonably practicable measures to ensure compliance with this requirement. Implementation measures may include the development of water budgets for use areas, site

⁶ Recommended tasks for development of salt and nutrient management plans can be found in Chapter 5 and Appendix B of the guidelines.

supervisor training, periodic inspections, tiered rate structures, the use of smart controllers, or other appropriate measures.

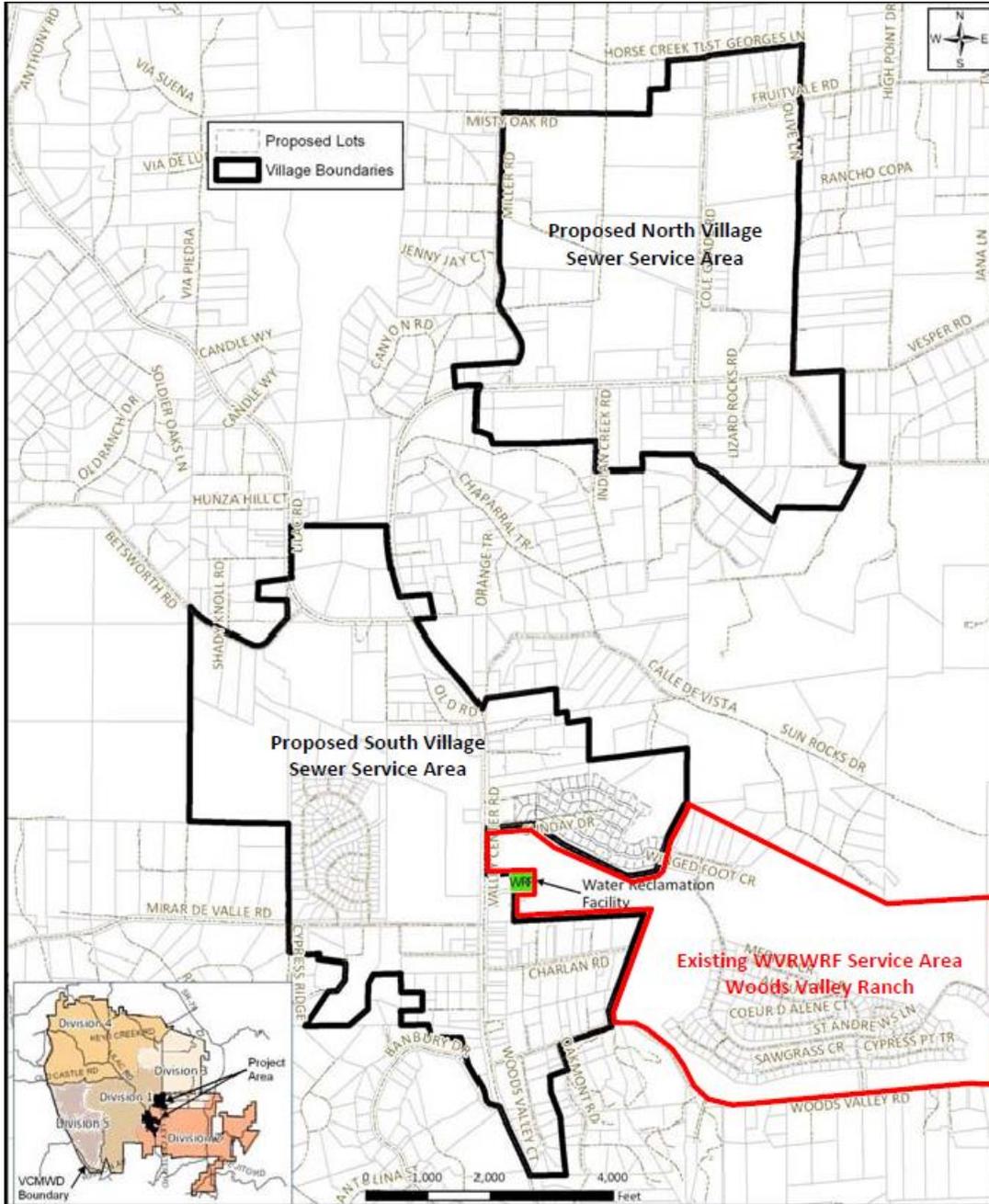
- M. Appropriate use of fertilizers that takes into account the nutrient levels in the recycled water. Recycled water producers shall monitor and communicate to the users the nutrient levels in their recycled water.
- N. The Discharger shall comply with the Monitoring and Reporting Program associated with Order No. R9-2015-0104 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. R9-2015-0104.

VIII. NOTIFICATIONS

- 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. 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.
- C. These requirements have not been officially reviewed by the United States Environmental Protection Agency and are not issued pursuant to Clean Water Act section 402.
- D. Any person aggrieved by this action of the San Diego Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and title 23, Cal. Code of Regs., sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at: http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request. 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.
- E. This Order becomes effective on the date of adoption by the San Diego Water Board.

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ATTACHMENT A – MAP



ATTACHMENT B - RULES AND REGULATIONS FOR RECYCLED WATER USE

Pursuant to Water Code Section 13523.1(b)(3), this Order requires the Discharger to establish and to enforce rules and regulations governing the design, construction, and use of recycled water distribution and disposal systems by its customers. The rules and regulations shall be consistent with the following criteria:

- Title 22, California Code of Regulations (Cal. Code of Regs.), division 4, chapter 3, Wastewater Reclamation Criteria;
- Title 17, Cal. Code of Regs., division 1, chapter 5, group 4, article 1 & 2;
- The State Water Board Division of Drinking Water (DDW) *Guidelines For Use of Recycled Water*, Guidelines for Use of Recycled Water for Construction;
- Any measures that are deemed necessary for protection of public health, such as the American Water Works Association (AWWA) California/Nevada Section, *Guidelines for the Distribution of Non-Potable Water and Guidelines for Retrofitting to Recycled Water* or alternate measures that are acceptable to the DDW.

I. STANDARD RULES AND REGULATIONS

At a minimum, the rules and regulations shall notify the users that:

- A. The use of recycled water shall not cause a condition of pollution, contamination or nuisance, as defined by Water Code Section 13050. The Discharger, the San Diego Water Board, the DDW, and the County Department of Environmental Health (County DEH), or an authorized representative of these parties, upon presentation of proper credentials, shall have the right to enter upon the recycled water use site during reasonable hours, to verify that the user is complying with the Discharger's rules and regulations.
- B. The recycled water user shall provide written notification, in a timely manner, to the Discharger of any material change or proposed change in the character of the use of recycled water.
- C. Prior to the initiation of recycled water service, the recycled water user shall submit to the Discharger plans and specifications for recycled water distribution facilities.
- D. The recycled water user shall designate a recycled water supervisor who is responsible for the recycled water system at each use area under the user's control. Specific responsibilities of the recycled water supervisor include the proper installation, operation, and maintenance of the irrigation system; compliance of the project with the Discharger's rules and regulations, prevention of potential hazards and preservation of the recycled water distribution system plans in "as built" form. Designated recycled water supervisors shall obtain instruction in the use of recycled water from an institution approved by the DDW and County DEH, as required.

ATTACHMENT B
Rules and Regulations for Recycled Water Use

- E. The Discharger may terminate service to a recycled water user who uses, transports, or stores such water in violation of the Discharger's rules and regulations.
- F. All recycled water storage facilities owned and/or operated by recycled water users shall be protected against erosion, overland runoff, and other impacts resulting from a 100-year, 24 hour frequency storm unless the San Diego Water Board approves relaxed storm protection measures for the facility.
- G. All recycled water storage facilities owned and/or operated by recycled water users shall be protected against 100-year frequency peak stream flows as defined by the San Diego County flood control agency unless the San Diego Water Board approves relaxed storm protection measures for the facility.
- H. The San Diego Water Board may initiate enforcement action against any recycled water user who discharges recycled water in violation of any applicable discharge requirement prescribed by the San Diego Water Board or in a manner which creates or threatens to create conditions of pollution, contamination or nuisance, as defined in Water Code section 13050.
- I. A copy of the recycled water rules and regulations, irrigation system layout map, and a recycled water system operations manual shall be maintained at the use area. These documents shall be available to operating personnel at all times.
- J. Irrigation with disinfected tertiary recycled water shall not take place within 50 feet of any domestic water supply well unless all of the following conditions have been met:
 - 1. A geological investigation demonstrates that an aquitard exists at the well between the uppermost aquifer being drawn from and the ground surface.
 - 2. The well contains an annular seal that extends from the surface into the aquitard.
 - 3. The well is housed to prevent any recycled water spray from coming into contact with the wellhead facilities.
 - 4. The ground surface immediately around the wellhead is contoured to allow surface water to drain away from the well.
 - 5. The owner of the well approves of the elimination of the buffer zone requirement.
- K. Impoundment of disinfected tertiary recycled water shall not occur within 100 feet of any domestic water supply well.

ATTACHMENT B
Rules and Regulations for Recycled Water Use

- L. Irrigation with, or impoundment of, disinfected secondary-2.2¹ or disinfected secondary - 23² recycled water shall not take place within 100 feet of any domestic water supply well.
- M. Irrigation with, or impoundment of, undisinfected secondary recycled water shall not take place within 150 feet of any domestic water supply well.
- N. Reclaimed water facilities shall be operated in accordance with best management practices (BMPs) to prevent direct human consumption of reclaimed water and to minimize misting, ponding, and runoff. BMPs shall be implemented that will minimize both public contact and discharge onto areas not under customer control.
- O. Irrigation with reclaimed water shall be during periods of minimal human use of the service area. Consideration shall be given to allow a maximum dry-out time before the irrigated area will be used by the public.
- P. All drinking fountains located within the approved use area shall be protected by location and/or structure from contact with recycled water spray, mist, or runoff. Protection shall be by design, construction practice, or system operation.
- Q. Facilities that may be used by the public, including but not limited to eating surfaces and playground equipment and located within the approved use areas, shall be protected to the maximum extent possible by siting and/or structure from contact by irrigation with recycled water spray, mist, or runoff. Protection shall be by design, construction practice or system operation.
- R. Spray irrigation with recycled water, other than disinfected tertiary recycled water, shall not take place within 100 feet of the property line of a residence or a place where public exposure could be similar to that of a park, playground, or school yard.
- S. All use areas where recycled water is used and that are accessible to the public shall be posted with conspicuous signs, in a size no less than 4 inches by 8 inches, that include the following wording in a size no less than 4 inches high by 8 inches wide: "RECYCLED WATER - DO NOT DRINK". The sign(s) shall be of a size easily readable by the public.
- T. No physical connection shall be made or allowed to exist between any recycled water system and any separate system conveying potable water.
- U. The recycled water piping system shall not include any hose bibs. Quick couplers that are different from that used on the potable water system may be used.

¹ Disinfected secondary-2.2 recycled water is defined in California Code of Regulations, Title 22, Chapter 3, section 60301.220

² Disinfected secondary-23 recycled water is defined in California Code of Regulations, Title 22, Chapter 3, section 60301.225

- V. The public water supply shall not be used as a backup or supplemental source of water for a recycled water system unless the connection between the two systems is protected by an air gap separation, which complies with the requirements of title 17, Cal. Code of Regs., sections 7602(a) and 7603(a) and the approval of the public water system has been obtained from the DDW and County DEH. If a "Swivel-ell" type connection is used it must be used in accordance with the provisions of the CDPH Policy Memo 95-004. Approved backflow prevention devices shall be provided, installed, tested, and maintained by the recycled water user in accordance with the applicable provisions of title 17, Cal. Code of Regs., division 1, chapter 5, group 4, article 2.
- W. No person other than the Discharger shall make a connection to the recycled water distribution system.
- X. All recycled water piping and appurtenances in new installations and appurtenances in retrofit installations shall be colored purple or distinctively wrapped with purple tape in accordance with Chapter 7.9, section 4049.54 of the California Health and Safety Code.
- Y. Reuse site shut down tests and inspections shall be monitored by the CDPH.
- Z. Customer complaints concerning recycled water use that may involve public illness shall be reported to the County DEH, the CDPH, and to the Discharger who shall maintain a log of all customer complaints regarding recycled water.

AA. Any backflow prevention device installed to protect the public water system shall be inspected and maintained in accordance with title 17, Cal. Code of Regs., section 7605.

AA.BB. Use fertilizers appropriately taking into account the nutrient levels in the recycled water.

BB.CC. Avoid overwatering of landscapes and runoff.

II. General Requirements for Hauling or Transportation of Recycled Water Using Vehicles

The Discharger must submit updated Draft Rules and Regulations for Recycled Water Use to the San Diego Water Board, DDW, and County of San Diego Department of Environmental Health (County DEH) **within three months** of establishing Recycled Water Fill stations the VCMWD service area and updated Final Rules and Regulations for Recycled Water Use **within six months** of establishing a Recycled Water Fill station. In addition, the Discharger must submit its draft program for training customers, haulers, and fill station staff on proper handling of recycled water to the DDW and County DEH **within six months** of establishing a Recycled Water Fill station. The final training program must be submitted to the DDW and County DEH within three months of establishing Recycled Water Fill stations the VCMWD service area.

The Discharger's updated Rules and Regulations for Recycled Water Use must include

requirements that will be implemented to ensure use and transport of recycled water from the fill stations will be protective of public health and the environment. At a minimum the Rules and Regulations must include the requirements below.

The Discharger and/or hauler must comply with the following requirements, unless the DDW and/or the County DEH determine that alternative criteria provide equivalent or better protection of public health and the environment.

- A. Haulers interested in participating in this program must apply for a Recycled Water Use Permit issued by the Discharger (this permit style and name is specific to the Discharger).
- B. Before trucks/containers can be filled for the first time, all haulers are required to attend a brief on-site orientation/training in order to learn about using the filling station and the proper handling and safe use of recycled water. Annual refresher training should be required. Records of training should be maintained by the Discharger.
- C. Use areas receiving hauled recycled water must follow the same title 17 and title 22 requirements as a similar use area receiving traditionally piped recycled water. These requirements must be addressed in the Discharger's permitting process.
- D. Once the hauler completes the on-site orientation/training and a MRP Recycled Water Program inspector verifies the tanker truck or containers meet the recycled water use requirements, the inspector will issue a signed Recycled Water Use Permit (this permit style and name is specific to the MRP). The Recycled Water Use Permit must be available for inspection at all times. The hauler must carry a copy in the vehicle at all times while hauling recycled water.
- E. If the hauler requests to supply recycled water to a use area that uses any plumbed potable or recycled water distribution systems, the Discharger must follow all applicable Title 17 and Title 22 regulations, including cross connection control testing and backflow prevention device installation prior to allowing pick up of recycled water. Dual plumbed use areas can only receive recycled water from a recycled water agency as specified in title 22, Cal. Code of Regs., section 60313(a).
- F. The hauler should keep a log book for each vehicle, tank, or container used to transport recycled water. The log book must be available for inspection at all times. The hauler must carry a copy in the vehicle at all times while hauling recycled water. The log book should include:
 - 1. Date of delivery/use;
 - 2. Volume of water delivered/used;
 - 3. Intended use of water; and
 - 4. Name and address of the recipient/customer.

ATTACHMENT B
Rules and Regulations for Recycled Water Use

- G. Recycled water must not be used for drinking or for food preparation. Additionally, the hauler or Recycled Water Site Supervisor must notify workers and/or the public when recycled water is used at a use site and inform them not to drink recycled water or use it for food preparation.
- H. Precautions should be taken to avoid food coming in contact with recycled water while the use site is wet.
- I. Recycled water shall not be allowed to spray on external drinking water fountains.
- J. Recycled water shall not be applied where it could contact or enter passing vehicles, storm drains, buildings or areas where food is handled or eaten.
- K. The hauler shall take adequate measures to prevent overspray, ponding, or run off of recycled water from the authorized recycled water use area.
- L. No irrigation or impoundment of recycled water is allowed within a minimum of 50 feet of any domestic drinking water well.
- M. No connection shall be made between a tank or container of recycled water and any part of a potable water system.
- N. The Recycled Water Use Permit must be available for inspection at all times.
- O. Recycled water must not be introduced into any potable water piping system and no connection shall be made between the tank and any part of a potable water system.
- P. Tank trucks, containers, and appurtenances must be clearly identified as “non-potable”, equipped with a legally sized air gap, and must not be used to provide potable water. Containers and hoses associated with hauling recycled water must not be used for potable water. Commercial hauling trucks that may be filled with potable water for non-potable uses must have two separate filling systems, one dedicated to potable water and one dedicated to recycled water. When the truck is filled from a potable water source, there must be a water agency or municipality provided meter and backflow device between the truck fill line and the potable source.
- Q. Vehicles, tanks, and containers must have water-tight valves and fittings, must not leak or spill contents during transport, and are cleaned of contaminants. This must be checked by the hauler before each use. Water-containing vessels that are open to the atmosphere during hauling are not acceptable for use.
- R. Haulers should not overfill containers or trucks.

- S. Hoses used for the application of recycled water shall be removable and shall be stored in a disconnected condition during transport. Hoses should be inspected prior to filling to ensure that they are in serviceable condition and free from leaks.
- T. The Discharger may conduct use area visits to ensure proper use of recycled water according to all title 17 regulations, title 22 regulations, and Recycled Water Use Permit conditions. This may include follow up phone calls or surveys regarding how the hauling process and recycled water application went.
- U. Conditions under which haulers may lose their permits should be clarified. Including failure to follow program requirements and/or adhere to applicable State, County or local codes will result in suspension of the haulers permit. Violations of such codes may also result in fines and applicable administrative fees being levied.
- V. Residential hauling programs shall limit onetime hauls to 300 gallons. Volumes larger than this should require investigation into the actual usage at the residents use area.
- W. The permitted hauler shall notify the Discharger prior to using recycled water for a use not authorized by the Discharger.
- X. The Discharger, San Diego Water Board, DDW, and County DEH have the right to enter any recycled water use site during reasonable hours to ensure the user is complying with these requirements and the Discharger's Rules and Regulations for Recycled Water Use

III. Rules and Regulations for Hauling or Transportation of Recycled Water From Commercial Vehicle Fill Stations

If the Discharger establishes recycled water fill stations, then the Discharger and hauler must comply with the following requirements, unless the DDW and/or the County DEH determine that alternative criteria provide equivalent or better protection of public health and the environment:

- A. Trucks hauling recycled water that may also be filled with potable supplies for non-potable purposes shall have a dedicated potable use fill line through an air gap separation. The fill lines shall be properly labeled as potable or recycled water. As an alternative, the water supplier may install a reduced pressure principle backflow device on the potable system for filling trucks with potable water.
- B. The risers, hoses, and fittings for each supply shall be color coded (painted), blue for potable and purple for recycled water.
- C. The hoses, hydrants and risers for each supply shall have separate and unique fittings (e.g., 2-1/2 inch diameter on the potable system and 2 inch diameter on the recycled water system) such that the potable system cannot accidentally be used on the recycled system and vice versa.

ATTACHMENT B
Rules and Regulations for Recycled Water Use

- D. All vehicles used in transporting recycled water must be clearly marked with typical signage that reads: “CAUTION: RECYCLED WATER - DO NOT DRINK” in English and Spanish. The Discharger shall conduct annual inspections of the trucks to assure that all requirements in this Order are being met and that recycled water is being used in compliance with the requirements of this Order.
- E. Vehicles used for transportation or distribution of recycled water, or for street sweeping must be equipped with an air gap to ensure backflow protection.
- F. Vehicles used for transportation and distribution of recycled water must have water-tight valves and fittings, and must not leak.
- G. Vehicles used to transport recycled water shall not be used to carry water for potable purposes, regardless of the source water. The use of recycled water for street sweeping or construction shall comply with the appropriate local storm water ordinance. Typical compliance measures include preventing overspray, ponding, or runoff of recycled water from the use area.
- H. Haulers must enter the date and amount collected on the fill station log sheet during each visit. Include locations the recycled water will be used and approximate amounts.
- I. For Hydrant Meter Filling Stations, haulers must ensure the meter is shut off before disconnecting the fill line and make sure no water is leaking from the meter or hydrant.
- J. For Gate Access Filling Stations, haulers must ensure no water is leaking from the fill pipe or hose and securely re-lock the gate after leaving the filling station.
- K. A truck or tank that has contained material from a septic tank or cesspool shall not be used to contain or distribute recycled water.

IV. Rules and Regulations for Use of Recycled Water for Fire Fighting

- A. Unused recycled water must not be released into streams, rivers, or waterways.
- B. Fire hydrants supplied with recycled water must be clearly identified by purple paints, signs, tags, stencils or other such labeling, in order to notify firefighters that the fire hydrants are supplied with recycled water.
- C. Fire truck tanks must be disinfected following the use of recycled water for firefighting, since fire trucks could be used to distribute drinking water during civil emergencies.

- D. Firefighting personnel must be adequately trained in safe use of recycled water. New and current firefighting personnel must receive periodic refresher courses regarding proper handling and use of recycled water

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ATTACHMENT C
INFORMATION SHEET
ORDER NO. R9-2015-0104

MASTER RECLCYCLING PERMIT
FOR THE VALLEY CENTER MUNICIPAL WATER DISTRICT,
WOODS VALLEY RANCH WATER RECLAMATION FACILITY, SAN DIEGO COUNTY

This Information Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of Order No. R9-2015-0104 (Order).

I. PERMIT INFORMATION

The following table summarizes administrative information related to the facility.

Table 1. Facility Information

WDID	9 000000077
Discharger	Valley Center Municipal Water District
Name of Facility	Woods Valley Ranch Water Reclamation Facility
Facility Address	27743 Valley Center Road
	Valley Center, CA 92082
	San Diego County
Facility Contact, Title and Phone	Mr. Gary T. Arant, General Manager, (760) 735-4500
Mailing Address	Mr. Gary T. Arant, 29300 Valley Center Rd, Valley Center, CA 92082
Billing Address	Mr. Gary T. Arant, 29300 Valley Center Rd, Valley Center, CA 92082
Type of Facility	Wastewater Treatment Plant
Threat to Water Quality	2
Complexity	B
Reclamation Requirements	Producer
Facility Permitted Flow	0.275 million gallons per day (mgd)
Receiving Water	Valley Center HSA (903.14)
Receiving Water Type	Groundwater

The Valley Center Municipal Water District (hereinafter VCMWD or Discharger) submitted a Report of Waste Discharge, dated May 2015, and requested revision of Order No. R9-1998-009. Specific requests included increasing the permitted flow to 0.275 mgd and to increase VCMWD's ability to add new reuse sites within the Valley Center hydrologic subarea and within the authority of a Master Recycling Permit.

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.

- A. The reuse of tertiary treated wastewater from the WVRWRF will occur in the Valley Center HSA (903.14).
- B. On January 17, 2014, California’s Governor proclaimed a [Drought State of Emergency](#) and directed state officials to take all necessary actions to prepare for drought conditions. The California Legislature has declared that a substantial portion of the future water requirements of the state may be economically met by beneficial use of recycled water (Water Code, section 13511). The Legislature also expressed its intent that the State undertake all possible steps to encourage development of water recycling facilities so that recycled water may be made available to help meet the growing water requirements of the State (Water Code, section 13512).
- C. On February 3, 2009, the State Water Board adopted Resolution 2009-0011, Adoption of a Policy for Water Quality Control for Recycled Water (Recycled Water Policy, revised January 22, 2013 and effective April 25, 2013).¹ The Recycled Water Policy promotes the use of recycled water to achieve sustainable local water supplies and reduce greenhouse gas emissions.
- D. Recycled water use can help to reduce the scarcity of local water supplies. It is not the only option for bringing supply and demand into a better balance, but it is a viable cost effective solution that is appropriate in many cases. The feasibility of recycled water use depends on local circumstances, which affect the balance of costs and benefits. In drought conditions, recycled water can be particularly valuable given the scarcity of alternative potable water supplies. In normal precipitation years recycled water use may reduce groundwater extraction. Broader and more effective uses of recycled water are consistent with the goals and objectives of the Recycled Water Policy and the San Diego Water Board’s Practical Vision strategy for achieving a sustainable local water supply.²
- E. The Order adds new provisions for the safe transport and use of recycled water from proposed recycled water fill stations. If the Discharger chooses to establish recycled water fill stations, then the Order requires the Discharger to amend its *Rules and Regulations for Recycled Water Use* and implement measures to ensure that the use and transport of recycled water from the fill stations complies with the Uniform Statewide Recycling Criteria, and is protective of public health and the environment.

II. FACILITY DESCRIPTION

- A. **Description of Woods Valley Ranch Water Reclamation Facility.** The WVRWRF provides disinfected tertiary treatment of domestic wastewater generated in the Woods Valley Ranch Development. Currently the annual average for the WVRWRF is

¹ http://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2013/rs2013_0003_a.pdf

² See Practical Vision for “Strategy for Achieving a Sustainable Local Water Supply”
http://www.waterboards.ca.gov/sandiego/water_issues/Practical_Vision/index.shtml

0.040 mgd. Existing treatment processes at the WVRWRF include headworks/screening, flow equalization, anoxic/aeration basins and membrane bioreactor (MBR) treatment, sodium hypochlorite disinfection, and chlorine contact facilities. The proposed expansion would add the North Village and South Village portions of Valley Center to the WVRWRF sewer service area. The full projected flow would be raised to 0.275 mgd when the expansion is complete. The expansion would entail the construction of a parallel treatment train that features screening, flow equalization, biological secondary treatment and secondary clarification, chemical addition and flocculation, and tertiary filtration using disk filters.

B. Recycled Water Filling Station Uses/Discharges. The VCMWD may establish Recycled Water Fill Stations at the WVRWRF from which customers may transport recycled water to use sites for the following uses.

- Street sweeping and cleaning of sidewalks and outdoor work areas.
- Dust control, soil compaction, and construction.
- Sewer flushing and pressure testing of newly constructed tertiary recycled water pipelines, sewer force main pipelines, and gas pipelines.
- Irrigation of commercial and residential landscapes, crops, and nursery stock.
- Fire protection.

C. Discharge Points and Receiving Waters. All disinfected tertiary treated wastewater produced at the WVRWRF will be beneficially reused at the Woods Valley Ranch Golf Course until May 3, 2023, per an agreement between VCMWD and Woods Valley Ranch Golf Course. The agreement was cited in the ROWD submitted by the VCMWD.

D. Plant Effluent Quality. Table 2 below shows average concentrations of selected chemical constituents for effluent samples analyzed between 2010 and 2014.

Table 2- Effluent Quality (units in milligrams per liter)

Year	TDS	Fe	Mn	B	Cl ⁻	F ⁻	SO ₄	MBAS	ASAR
2010	810	0.058	0.012	0.343	164	0.38	157	-	-
2011	815	<0.052	<0.010	0.60	176	1.04	217	-	-
2012	940	<0.052	<0.010	0.66	206	0.51	170	<0.10	6.4
2013	850	<0.064	<0.010	0.72	198	0.62	155	<0.10	5.4
2014	925	<0.064	<0.010	0.36	198	0.64	155	<0.10	4.0

End Notes for Table 2

Notes: TDS = Total Dissolved Solids, Fe = Iron, Mn = Manganese, B = Boron, Cl⁻ = Chloride, F⁻ = Fluoride, SO₄ = Sulfate, MBAS = Methylene Blue Activated Substances, ASAR= Adjusted Sodium Adsorption Ratio

- E. **Proposed Changes in Master Recycling Permit.** As requested in the VCMWD's ROWD, this Order authorizes an expansion of its recycled water production from 0.147 to 0.275 mgd.

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

The requirements contained in the proposed Order are based on the requirements and authorities described in this section.

- A. **Legal Authorities.** This Order is issued pursuant to sections 13263 and 13523.1 of the Water Code. This Order serves as a Master Recycling Permit, which also includes Waste Discharge Requirements (WDRs) issued pursuant to article 4, chapter 4, division 7 of the Water Code.
- B. **California Environmental Quality Act.** The VCMWD is functioning as the lead agency under the California Environmental Quality Act (CEQA). The VCMWD prepared a Final Environmental Impact Report titled, *South Village Water Reclamation Project*, (State Clearinghouse #2007101049) dated April 7, 2008 and subsequently Addenda Nos. 1 and 2 to Final EIR dated January 20, 2011 and January 25, 2013, respectively. A Mitigated Negative Declaration was prepared dated January 7, 2015 to assess potential environmental impacts from the project. The Mitigated Negative Declaration concludes that the project will have less than significant impacts related to water quality.
- C. **Water Quality Control Plans.** The Water Quality Control Plan for the San Diego Basin (hereinafter Basin Plan) designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed by 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 beneficial uses of groundwater designated for the Valley Center Hydrologic Subarea (903.14) of the Lower San Luis Rey Hydrologic Area (HA 903.10) are designated for municipal and domestic supply, agricultural supply, and industrial process supply.³
- D. **Recycled Water Policy.** The Recycled Water Policy states that the appropriate way to address salts and nutrients is through development of regional and sub-regional salt and nutrient management plans. The Order requires the VCMWD to complete a salt and nutrient management plan for the Valley Center HSA groundwater basin by May 31, 2018. The salt and nutrient management plan must include implementation measures to ensure that salt and nutrient inputs to the basin from use of recycled water and from other dischargers will not adversely affect groundwater quality.

The salt and nutrient management plan must implement measures to ensure that salt and nutrient inputs to the basin from use of recycled water and from other dischargers

³ Basin Plan Chapter 2, Beneficial uses:
http://www.waterboards.ca.gov/sandiego/water_issues/programs/basin_plan/docs/update082812/Chpt_2_2012.pdf

will not adversely affect groundwater quality. Proposed tasks and measures to be implemented by the Discharger may be based on the *Guidelines for Salinity/Nutrient Management Planning in the San Diego Region* (guidelines).⁴ Once completed, the Discharger must implement the plan.

- E. **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.

IV. RATIONALE FOR DISCHARGE SPECIFICATIONS

A. Discharge Specifications

1. The Order establishes both technology and water quality based discharge specifications for the reuse of recycled water from the WVRWRF. The technology based discharge specifications are specified in the Order for biological oxygen demand, total suspended solids, and pH are based on design criteria for removal of these constituents by secondary wastewater treatment technology. The water quality-based discharge specifications specified are derived from the water quality objectives (shown in Table 3 below and listed in Table 3.3 of the Basin Plan)⁵ for the Valley Center HSA (903.14).

Table 3. Basin Plan Groundwater Water Quality Objectives

HYDRO LOGIC 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 ₄	%Na	NO ₃	Fe	Mn	MBAS	B	ODOR	TURB (NTU)	COLOR (UNITS)	F
Valley Center HSA (903.14)	1,100 ^a	300	400	60	10 ^b	0.3	0.05	0.5	0.75	none	5	15	1.0

Effluent samples reported for WVRWRF, between 2012 and 2014, had an average TDS concentrations of 905 mg/L. The WVRWRF collects quarterly groundwater samples for evaluation of groundwater quality as part of the requirements of Order No. R9-1998-009. The average TDS concentration in groundwater samples, collected since December 2013, was calculated to be 1,148 mg/L.

⁴ Recommended tasks for development of salt and nutrient management plans can be found in Chapter 5 and Appendix B of the guidelines.

⁵ Chapter 3, Water Quality Objectives
http://www.waterboards.ca.gov/sandiego/water_issues/programs/basin_plan/docs/update082812/Chpt_3_2012.pdf

⁶ The water quality objective for nitrate was amended by the San Diego Water Board to 45 mg/L. However, the amendment is not legally binding until the State Water Board and Office of Administrative Law approve the Basin Plan amendment.

Table 4. Summary of Discharge Specifications

Constituent	Units	Daily Maximum ¹	Monthly Average ²	12-Month ³
Biological Oxygen Demand (BOD ₅ @ 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	-	-	1,100
Chloride (Cl)	mg/L	-	-	300
Sulfate (SO ₄)	mg/L	-	-	400
Percent Sodium (% Na)	%	-	-	60%
Total Nitrogen (N)	mg/L	-	-	10
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	-	-	1.0
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

¹The daily maximum discharge specification shall apply to the results of a single composite or grab sample representing non-overlapping 24 hour periods.

²The monthly average discharge specification shall apply to the arithmetic mean of the results of all samples collected during each calendar month.

³The 12-month average discharge specification shall apply to the arithmetic mean of the results of all samples collected during a calendar year.

B. Tertiary treated recycled water produced from the WVRWRF shall comply with the following.

1. The chlorine disinfection process must provide a chlorine contact time (or CT)⁷ 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.
2. 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.
3. 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. Title 22 Specifications

The discharge specifications in the Order for chlorine residual, turbidity, and coliform bacteria are based on the levels of treatment specified in title 22, Cal. Code of Regs., for the proposed uses of recycled water. The title 22 specifications are based on recommendations of the DDW for the protection of human health at use sites. Recycled water from the WVRWRF discharged to reuse sites must meet the definition of “disinfected tertiary recycled water” in title 22 , Cal. Code of Regs., section 60301.230 and by reference “filtered wastewater” in section 60301.320 incorporated by reference, including future changes to the incorporated provisions as the changes take effect.

V. COMPLIANCE WITH THE ANTIDEGRADATION POLICY

State Water Board Resolution No. 68-16, the *Statement of Policy with Respect to Maintaining High Quality of Waters in California* (the Antidegradation Policy) requires that disposal of waste into the waters of the State be regulated to achieve the highest water quality consistent with the maximum benefit to the people of the State. The quality of some waters is higher than established by adopted policies and that higher quality water must be maintained to the maximum extent possible consistent with the Antidegradation Policy. The Antidegradation Policy requires the following.

- A. Higher quality water will be maintained until it has been demonstrated to the State that any change will be consistent with the maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of the water, and will not result in water quality less than that prescribed in the Basin Plan.

⁷ Defined as the product of total chlorine residual and modal contact time measured at the same point.

- B. Any activity that produces a waste or may produce waste or increased volume or concentration of waste, and discharges to existing high quality waters will be required to meet waste discharge requirements that will result in the best practicable treatment or control of the discharge necessary to assure pollution or nuisance will not occur, and the highest water quality consistent with the maximum benefit to the people of the State will be maintained.

In an arid climate, such as that of the San Diego Region, the maximum benefit to the people of the State can only be achieved by ensuring long and short-term protection of economic opportunities, human health, and environmental protection. In order to do that, water uses must be better matched to water quality, and use of local supplies must be encouraged to the extent possible, including reusing treated wastewater that would otherwise flow to the ocean or other salt sinks without supporting beneficial uses during transmission.⁸ The use of recycled water in place of both raw and potable water supplies for the non-potable uses allowed under this Order improves water supply availability and helps to ensure that higher quality water will continue to be available for human uses and for instream uses for fish and wildlife. The limited degradation of receiving groundwater that may occur as the result of recycling under the conditions of the Order provides maximum benefit to the people of the State, provided recycled water treatment and use are managed to ensure long-term reasonable protection of beneficial uses of waters of the State.

Recycled water from the WVRWRF has been treated to levels that comply with discharge specifications contained in the Order pursuant to the Basin Plan and title 22, Cal. Code of Regs. requirements. Treatment technologies required under title 22, Cal. Code of Regs. include secondary treatment, tertiary treatment, and disinfection for pathogen removal.

Title 22, Cal. Code of Regs. imposes limitations on the uses of recycled water based on the level of treatment and the specific uses in order to protect human health. This Order restricts the uses of recycled water to be consistent with title 22, Cal. Code of Regs. requirements ensuring that recycled water is used safely. To the extent that the use of recycled water may result in some waste constituents entering the environment after effective source control, treatment, and control measures are implemented, this Order requires application of recycled water at agronomic rates.

Effluent samples reported for WVRWRF, between 2012 and 2014, had an average TDS concentrations of 905 mg/L. The WVRWRF collects quarterly groundwater samples for evaluation of groundwater quality as part of the requirements of Order No. R9-1998-009. The average TDS concentration in background groundwater samples, collected since December 2013, was calculated to be 1,148 mg/L. Therefore, a reasonable potential analysis could conclude that recycled water being discharged and reused at the Woods Valley Ranch Golf Course is not adversely impacting groundwater quality.

⁸ The Legislature also expressed its intent that the State undertake all possible steps to encourage development of water recycling facilities so that recycled water may be made available to help meet the growing water requirements of the state (Water Code section 13512).

VI. RATIONALE FOR RECYCLED WATER PURVEYANCE REQUIREMENTS

Recycled Water Purveyance Requirements are included in the Order pursuant to Water Code section 13523 and based on recommendations from the DDW. In accordance with title 22, Cal. Code of Regs., the DDW reviews engineering reports for the production, distribution, and use of recycled water. The San Diego Water Board relies on the expertise of the DDW and includes recommendations from DDW in WDRs to ensure recycled water is treated and used in a manner that protects human health. The Discharger must certify that the Facility and other existing purveyance facilities meet DDW's requirements, or must update the title 22 engineering report to comply with DDW's requirements. The Order also requires the Discharger to maintain Rules and Regulations for Recycled Water Use (Rules and Regulations) that comply with DDW's requirements. The Rules and Regulations must include an inspection and cross-connection testing program. The Order also requires the Discharger to update its Rules and Regulations to include requirements to ensure use and transport of recycled water from recycled water fill stations will be protective of public health and the environment.

VII. RATIONALE FOR PROVISIONS

A. Standard Provisions

The standard provisions contain language that allows the San Diego Water Board to enforce Order No. R9-2015-0104. Provisions include need for inspection, spill and emergency reporting, records maintenance, and reporting of changes. Standard provisions apply to all WDRs and are consistent with San Diego Water Board findings.

B. Monitoring and Reporting Program Requirements

The MRP is a requirement of the Order. The rationale for the MRP is provided in section V above.

C. Special Provisions

- 1. Facility Design and Operation Specifications.** A certification report prepared by a licensed civil engineer is required to be submitted by the Discharger within 180 days of adoption of the Order. This serves as an acknowledgement that the facility has been designed to meet the requirements of the Order. The facility will also be designed and constructed in accordance with title 22 Engineering Reports that will be reviewed by the DDW. The specifications here, which continually apply, also include need for properly trained operators, operation and maintenance manuals and references, and best management practices for the protection of human health.
- 2. Notifications.** The notifications inform the Discharger of administrative issues regarding this Order.

- 3. Salt and Nutrient Management Plan (SNMP).** The requirement for a salt and nutrient management plan is specified in Section 6 of the State Water Board's Recycled Water Policy.⁹

VIII. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

The purpose of the MRP is to determine and ensure compliance with effluent limitations and other requirements established in this Order, assess treatment efficiency, characterize effluents, and characterize the receiving water and the effects of the discharge on the receiving water. The MRP also specifies requirements concerning the proper use, maintenance, and installation of monitoring equipment and methods, and the monitoring type intervals and frequency necessary to yield data that are representative of the activities and discharges regulated under this Order.

Effluent monitoring is required to determine compliance with discharge specifications, and facility design and operation specifications. Monitoring and Reporting Program (MRP) No. R9-2015-0104 is issued pursuant to Water Code section 13267, which authorizes the San Diego Water Board to require technical and monitoring reports. The use of laboratories certified for federally standardized test methods, and quality assurance and control procedures ensures the reliability and validity of the data as well as consistency and comparability with regulations.

Consistent with the *Framework for Monitoring and Assessment in the San Diego Region*,¹⁰ the monitoring required by the Order answers the two specific monitoring questions below.

- A. The monitoring section contains an introductory paragraph summarizing why the monitoring is needed and the key management questions the monitoring is designed to answer. In developing the list of key management questions the San Diego Water Board considered four basic types of information for each question:
1. Management Information Need – Why does the San Diego Water Board need to know the answer?
 2. Monitoring Criteria – What monitoring will be conducted for deriving an answer to the question?
 3. Expected Product – How should the answer be expressed and reported?
 4. Possible Management Actions – What actions will be potentially influenced by the answer?
- B. The framework for this monitoring program has three components: 1. Effluent quality monitoring 2. Monitoring recycled water production/distribution and 3. Groundwater quality monitoring.

⁹ Recycled Water Policy:

http://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2013/rs2013_0003_a.pdf

¹⁰ California Regional Water Quality Control Board, San Diego Region, Staff Report, November 2012.

1. Effluent monitoring consists of the basic site-specific monitoring necessary to measure compliance with individual effluent limits and assess potential impacts to receiving water quality. Core monitoring is typically conducted at the end of the treatment process and prior to distribution of recycled water to reuse sites.
2. Recycled water production and distribution monitoring provides information necessary to track the production and distribution of recycled water in the San Diego Region. This information provides an essential data for a cumulative picture of the production and distribution of recycled water within the San Diego Region.
3. Groundwater monitoring includes the basic site-specific monitoring necessary to measure compliance with groundwater quality objectives designated by the Basin Plan and assess potential impacts to receiving water quality.

C. Rationale for Effluent Monitoring.

1. Effluent monitoring is the collection and analysis of samples or measurements of effluents, after all treatment processes, to determine and quantify contaminants and to demonstrate compliance with discharge specifications, and facility design and operation specifications. Effluent monitoring is necessary to address the following questions:
 - a. Does the effluent quality comply with concentration limits prescribed in the discharge specifications, performance goals, and other requirements of this Order; thereby ensuring that water quality objectives are achieved in the groundwater?
 - b. Does the effluent quality comply with the statewide treatment standards for recycled water, as required by title 22, Cal. Code of Regs.?
 - c. Is the Facility being properly operated and maintained to ensure effluent quality remains in compliance with the conditions of the Order?

D. Rationale for Monitoring Recycled Water Production/Distribution.

1. Collection and analysis of recycled water production and reuse data will help answer the following questions.
 - a. What is the total volume of recycled water produced from the plant?
 - b. Where are the locations of recycled water use sites?
 - c. How much recycled water is delivered to the reuse sites?
 - d. What is the level of compliance with the rules and regulations at recycled water reuse sites?

E. Rational for Groundwater Quality Monitoring.

1. Collection and analysis of groundwater samples will help answer the following questions.
 - a. Is the background groundwater quality consistent with water quality objectives?
 - b. Are impacts from the discharge from the Facility evident in concentrations of constituents in the groundwater?
 - c. Is there any evidence that the groundwater quality has been degraded in the aquifer located hydrologically down gradient of the discharge location?

IX. PUBLIC PARTICIPATION

Two of the four values of the San Diego Water Board espoused in its Practical Vision are communication and transparency. Participation of the public in the decision making process of the Board is a hallmark of the board governmental structure in California and essential to this Board's success. As a step in the WDR adoption process, the San Diego Water Board staff developed WDRs. The San Diego Water Board has taken the following steps to encourage public participation in the WDR adoption process.

A. Notification of Interested Parties

Consistent with Water Code section 13167.5, the San Diego Water Board has notified the Discharger and interested agencies and persons of its intent to adopt a Master Recycling Permit for the discharge and made Tentative Order No. R9-2015-0104 available on its website. The San Diego Water Board has notified the Discharger, interested agencies and interested persons of its intent to prescribe WDRs and adopt a Master Recycling Permit for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Notification was provided through the San Diego Water Board website and board meeting agenda publication.

B. Written Comments

The staff determinations are tentative. Interested persons are invited to submit written comments concerning these tentative Master Recycling Permit. Comments must be submitted either in person, in writing, or by email including a signed cover/transmittal letter sent via email to sandiego@waterboards.ca.gov in Portable Document Format (PDF) or Microsoft Word format by **5:00 p.m. on November 9, 2015**. Comments should be addressed to the attention of Mr. Alex Cali.

To be fully responded to by staff and considered by the San Diego Water Board, written comments must be received at the San Diego Water Board offices **by 5:00 p.m. on November 9, 2015**.

C. Public Hearing

The San Diego Water Board will hold a public hearing on the tentative WDRs during its regular Board meeting on the following date and time and at the following location:

Date: **December 16, 2015**
Time: **9:00 am**
Location: **2375 Northside Drive, Suite 100**
San Diego, CA 92108

Interested persons are invited to attend. At the public hearing, the San Diego Water Board will hear testimony, if any, pertinent to the discharge, WDRs, and Master Recycling Permit. Oral testimony will be heard; however, for accuracy of the record, important testimony should be in writing.

Please be aware that dates and venues may change. Our Web address is http://www.waterboards.ca.gov/sandiego/board_info/agendas/ where you can access the current agenda for changes in dates and locations.

D. Waste Discharge Requirements Petitions

Any aggrieved person may petition the State Water Resources Control Board to review the decision of the San Diego Water Board regarding the final WDRs. The petition must be submitted within 30 days of the San Diego Water Board's action to the following address:

State Water Resources Control Board
Office of Chief Counsel
P.O. Box 100, 1001 I Street
Sacramento, CA 95812-0100

E. Information and Copying

The Report of Waste Discharge, related documents, tentative discharge specifications and special provisions, comments received, and other information are on file and may be inspected at the address above at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the San Diego Water Board by calling 619-516-1990.

F. Register of Interested Persons

Any person interested in being placed on the mailing list for information regarding the Order should contact the San Diego Water Board, reference this facility, and provide a name, address, phone number, and email address.

G. Additional Information

Requests for additional information or questions regarding this order should be directed to Mr. Alex Cali at 619-521-3355 or at acali@waterboards.ca.gov.

ATTACHMENT D

TENTATIVE MONITORING AND REPORTING PROGRAM NO. R9-2015-0104

FOR THE VALLEY CENTER MUNICIPAL WATER DISTRICT WOODS VALLEY RANCH WATER RECLAMATION FACILITY, SAN DIEGO COUNTY

This Monitoring and Reporting Program (MRP) is issued to the Valley Center Municipal Water District (VCMWD) 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. The San Diego Water Board Executive Officer can modify the MRP as appropriate.

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 effluent samples shall be collected at the monitoring points specified in this 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 are 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 State Water Board Division of Drinking Water (DDW). The Discharger must use a laboratory capable of producing and providing quality assurance and 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:

Attachment D
Monitoring and Reporting Program

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 DDW 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 part 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 or in a format 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 or other electronic recording used 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 any noncompliance that may endanger health or the environment. Pursuant to section 5411.5 of the Health and Safety Code, any sewage overflow or spill shall be immediately reported to the County of San Diego, Department of Environmental Health to the extent permitted by federal law. 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 report shall also be provided within 5 days of the time the Discharger becomes aware of the circumstances. The written report 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:
 - 1. Any bypass from any portion of the treatment facility.
 - 2. Any discharge of treated or untreated wastewater resulting from sewer line breaks, obstruction, surcharge, or any other circumstances.
 - 3. Any treatment plant upset which causes the discharge specifications of this Order to be exceeded.
 - 4. Failure of disinfection system.
- L. If the Discharger or end user, 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 recycled water¹ or 1,000 gallons or more of recycled water that is treated at a level less than disinfected tertiary 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 Provision VI. B.
- M. All applications, reports, or information submitted to the San Diego Water Board shall be signed and certified as follows:
 - 1. The Report of Waste Discharge shall be signed as follows:

¹ Disinfected tertiary recycled water is defined in California Code of Regulations, Title 22, Chapter 3, section 60301.230

- a. For a partnership or sole proprietorship-by a general partner or the proprietor, respectively.
 - b. For a municipality, State, federal or other public agency-by either a public Executive Officer or ranking elected official.
 - c. By either a principal executive officer or ranking elected official.
2. 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 Section M.1 or a duly authorized representative of that person. An individual is duly authorized representative only if the following are true:
- a. The authorization is made in writing by a person described in Section M1;
 - 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.
3. 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."

- N. 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.
- O. 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.
- P. 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 MRP No. R9-2015-0104 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

A. Effluent Monitoring Requirements

1. Effluent that will be discharged to landscape irrigation sites or reuse sites subject to Water Recycling Criteria specified in title 22, Cal. Code of Regs. shall be monitored downstream from the chlorine contact basin. Required effluent monitoring is outlined in Table 1.

Table 1. Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency ^{a,b}	Reporting Frequency
Flow Rate	mgd	Continuous	Continuous	Monthly
Chlorine Residual ^c	mg/L	Continuous	Continuous	Monthly
Chlorine-Contact Time (CT) ^d	mg-min/L	Continuous	Continuous	Monthly
Total Coliform Bacteria ^e	MPN/100 mL	Grab	Daily	Monthly
Turbidity ^f	NTU	Continuous	Continuous	Monthly
Biological Oxygen Demand (BOD ₅ @ 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 ₄)	mg/L	Composite	Quarterly	Quarterly
Percent Sodium (% Na)	%	Composite	Quarterly	Quarterly
Nitrate (NO ₃)	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
Arsenic	mg/L	Composite	Once every 5 years	Once every 5 years
Antimony	mg/L	Composite	Once every 5 years	Once every 5 years
Barium	mg/L	Composite	Once every 5 years	Once every 5 years
Beryllium	mg/L	Composite	Once every 5 years	Once every 5 years
Cadmium	mg/L	Composite	Once every 5 years	Once every 5 years
Cyanide	mg/L	Composite	Once every 5 years	Once every 5 years
Mercury	mg/L	Composite	Once every 5 years	Once every 5 years
Nickel	mg/L	Composite	Once every 5 years	Once every 5 years

Parameter	Units	Sample Type	Minimum Sampling Frequency ^{a,b}	Reporting Frequency
Perchlorate	mg/L	Composite	Once every 5 years	Once every 5 years
Selenium	mg/L	Composite	Once every 5 years	Once every 5 years
Thallium	mg/L	Composite	Once every 5 years	Once every 5 years
Priority Pollutants ^g	mg/L	Composite	Once every 5 years	Once every 5 years

a. The Discharger 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 Discharger achieves compliance with the Specification for three consecutive periods, at which point the Recycled Water Agency shall resume sampling at the specified frequency.

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. Annually is defined as a period of 12 consecutive calendar months beginning on January 1.

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.

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.

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.

f. Effluent samples collected to determine turbidity (when required) shall be collected after the media filters. Effluent tertiary turbidity analyses shall be conducted continuously using a continuous monitoring and recording turbidity meter. 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 turbidity meter 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 Discharger 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.

g. Required by the State Water Board Recycled Water Policy, see section 7.b.4 of the State Water Board Recycled Water Policy.

III. RECYCLED WATER ~~USERS SUMMARY~~ REPORTS

- A. The Discharger shall submit quarterly recycled water users' summary reports containing the following information:
1. Total volume of recycled water supplied to all recycled water users for each month of the reporting period.
 2. Total number of recycled water use sites.
 3. Address of the recycled water use site.

4. Basin Plan name and number of hydrologic subarea underlying the recycled water use sites.
- B. The Discharger shall submit annual recycled water users' compliance reports containing the following information:
1. Recycled water use site summary report
 - a. Name of each recycled water reuse site.
 - b. Owner of each recycled water use facility.
 - c. Address of each reuse site.
 - d. Name of the recycled water user supervisor.
 - e. Phone number of the on-site user supervisor.
 - f. Mailing address of the recycled water use supervisor, if different from site address.
 - g. Volume of reclaimed water delivered to each reuse site for each of the 12 months in a calendar year.
 - h. Total area (in acres) of each landscape irrigation site.
 - i. The amount of nitrogen² (in pounds per acre per year) applied in recycled water on each landscape irrigation site.
 - ~~j. The amount of nitrogen (in pounds per acre) applied as fertilizer on each landscape irrigation site.~~
 2. Recycled water user site inspections

The Discharger shall report the number of recycled water reuse site inspections conducted by its staff and identify the sites inspected for the reporting period.
 3. Recycled water user violations of the Discharger's rules and regulations.

The Discharger shall identify all recycled water users known to be in violation of its rules and regulations for recycled water users. The report shall include a description of the noncompliance and its cause, including the period of noncompliance, 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.

² Concentration of nitrogen in recycled water can be obtained from the recycled water producer.

- C. If the Discharger establishes recycled water fill stations, then the following information shall also be included in the annual recycled water compliance report.
1. A list of all approved residential and commercial recycled water haulers. The District's annual list must also indicate any new recycled water haulers that were approved during the calendar year.
 2. A list of users receiving or proposing to receive recycled water from the fill stations (including a list of uses of recycled water for each user).
 3. A list of recycled water end use sites outside the District's recycled water service area.
 4. A summary of the volume of recycled water used (in acre feet) from the fill stations each quarter during the calendar year.
 5. A summary table of all inspections conducted of recycled water use sites which received recycled water from the fill stations during the calendar year and enforcement/corrective actions initiated by the Discharger during the calendar year. Include a discussion of compliance and the corrective action taken, as well as any planned or proposed actions needed to bring the discharge into compliance with the Order. Copies of any enforcement actions taken by the Discharger shall be provided to DDW, the San Diego Water Board and County DEH.
 6. An evaluation of the performance of the recycled water treatment facility, including discussion of capacity issues, system problems, and a forecast of the flows anticipated in the next year.
 7. The name and contact information for the recycled water operator/staff responsible for overseeing operation, maintenance, and system monitoring of the fill stations.

D. The Discharger shall provide the San Diego Water Board with the following documents.

1. A work plan to conduct a study at its largest reuse site and identify the total applied nitrogen load (nitrogen loads in recycled water plus nitrogen load in applied fertilizers). The workplan shall include the tasks and a schedule to prepare a final technical report to evaluate nitrogen loads applied to the site during a 12-month period, identify target agronomic rates for the site, and documents how applied nitrogen loads are consistent with typical agronomic rates of nitrogen loading for fertilizer and recycled water.
2. A final technical report for the nitrogen loading study shall be reported to the Regional Water Board within 18 months of adoption of this Order. The reports shall also include a review of groundwater quality monitoring data, an evaluation of groundwater nitrate concentrations in the vicinity of the use sites, and a summary

of actions the Discharger has taken to comply with the requirements established within Special Provisions VII.B of this Order.

IV. GROUNDWATER MONITORING REQUIREMENTS

- A. The Discharger shall submit a proposed groundwater monitoring plan and map that identifies proposed groundwater monitoring wells for characterizing groundwater quality in the vicinity of the recycled water use sites. The plan must be received by the San Diego Water Board within 90 days of the adoption of this Order. The Discharger shall provide a location map with each quarterly groundwater monitoring report that includes the location of the Facility, recycled water use sites, and monitoring wells.
- B. For each of the wells identified within the monitoring plan submitted pursuant to Groundwater Monitoring Requirement IV.A, the Discharger VCMWD shall conduct groundwater monitoring in accordance with the groundwater monitoring program outlined in Table 2. Results of the groundwater monitoring program shall be submitted quarterly.
- B.C. The Discharger shall continue using the monitoring network established with the previous Order No. 98-09, until the Groundwater Monitoring Plan is approved by the San Diego Water Board.

Table 2. Groundwater Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Reporting Frequency
Total Dissolved Solids (TDS)	mg/L	Grab	Quarterly	Quarterly
Chloride	mg/L	Grab	Quarterly	Quarterly
Sodium	mg/L	Grab	Quarterly	Quarterly
Iron	mg/L	Grab	Quarterly	Quarterly
Sulfate	mg/L	Grab	Quarterly	Quarterly
Manganese	mg/L	Grab	Quarterly	Quarterly
Fluoride	mg/L	Grab	Quarterly	Quarterly
Boron	mg/L	Grab	Quarterly	Quarterly
Nitrate	mg/L	Grab	Quarterly	Quarterly
Total Nitrogen	mg/L	Grab	Quarterly	Quarterly

V. REPORTING REQUIREMENTS

- A. The Discharger shall report in the Self-Monitoring Reports (SMRs) the results for all monitoring specified in Section II (Discharge Monitoring Requirements) and Section IV (Groundwater Monitoring) 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 schedule in Table 3:

Table 3. 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 (e.g. March 1 for January)
Quarterly	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31	May 1 August 1 November 1 February 1
Annually	January 1 through December 31	March 1
5 years	5 year period	March 1

Laboratory 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 (e.g. 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 discharge specifications.
 - 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 IV (Groundwater Monitoring) of this MRP.
4. Self-Monitoring Reports must be submitted in text searchable PDF format to the San Diego Water Board via email. The email submittals must include a signed cover/transmittal letter (with the facility name, facility contact information, and reference code), and, unless directed otherwise by the Executive Officer, be sent via email to sandiego@waterboards.ca.gov.

Ordered by: **TENTATIVE**
David W. Gibson
Executive Officer
DATE: December 16, 2015