

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

ORDER NO. R9-2007-0018

**WASTE DISCHARGE REQUIREMENTS
FOR
VALLECITOS WATER DISTRICT
MEADOWLARK WATER RECLAMATION PLANT
SAN DIEGO COUNTY**

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

1. The Vallecitos Water District (hereafter Discharger) owns and operates Meadowlark Water Reclamation Plant (MWRP) that discharges up to 2.25 million gallons per day (MGD) of tertiary treated effluent used for irrigation under Order No. R9-1993-0023.
2. On May 6, 2006, the Discharger submitted a complete Report of Waste Discharge (ROWD) prepared by Kennedy/Jenks Consultants proposing to upgrade the MWRP and increase its capacity to 5.0 MGD.
3. When upgraded, the MWRP, which is located at 7941 Corintia Street in Carlsbad, will consist of headworks, primary sedimentation tanks, roughing filters, aeration basins, secondary clarifiers, and new media granular filters and chlorination. The upgraded MWRP will produce disinfected tertiary effluent in compliance with Title 22 of the California Code of Regulations. This recycled water will be delivered to Carlsbad and Olivenhain Water Districts for purveyance of recycled water under each District's master reclamation permits.
4. The Discharger maintains an existing pipeline to the Encina Water Pollution Control Facility (EWPCF) ocean outfall. During wet weather or periods of low irrigation, the MWRP can discharge up to 5.0 MGD of secondary treated wastewater to the ocean outfall under the requirements of Order No. R9-2005-0219, NPDES Permit No. CA0107395. The Discharger also sends all solids produced by MWRP, to the EWPCF via a land outfall for treatment and disposal.
5. In accordance with Section 2200, Title 23 of the California Code of Regulation, the threat to water quality and complexity of the treated wastewater effluent from MWRP is determined as category 2B.
6. The Discharger reported that the upgraded MWRP will produce a tertiary effluent with the following characteristics:

Constituent	Units	Projected Effluent Water Quality
Biochemical Oxygen Demand ₅	mg/L	30
Total Suspended Solids	mg/L	30
Total Dissolved Solids	mg/L	1100
Chloride	mg/L	260
Manganese	mg/L	0.050
Iron	mg/L	0.3
Boron	mg/L	0.5

7. The Discharger will produce recycled water for distribution by Carlsbad and Olivenhain Water Districts at use sites within the El Salto Hydrologic Subarea (HSA) (4.21), Los Monos HSA (4.31), Batiquitos HAS (4.51), Richland HSA (4.52), San Elijo HSA (4.61), and Encinas Hydrologic Area (4.40).
8. This Regional Board, acting in accordance with section 13244 of the California Water Code, adopted the Water Quality Control Plan for the San Diego Basin (9), (hereinafter Basin Plan) on September 8, 1994. The Basin Plan was subsequently approved by the State Water Resources Control Board (SWRCB) on December 13, 1994. Subsequent revisions to the Basin Plan have also been adopted by the Board and approved by the SWRCB. The Basin Plan contains beneficial uses and water quality objectives.
9. A discharge in compliance with this Order will be consistent with the standards, policies, and regulations established in the Basin Plan for the achievement of water quality objectives.
10. In establishing the requirements contained herein the Regional Board considered factors including, but not limited to, the following:
 - a. Beneficial uses to be protected and the water quality objectives reasonably required for that purpose,
 - b. Other waste discharges,
 - c. The need to prevent nuisance,
 - d. Past, present, and probable future beneficial uses of the hydrologic subunits under consideration,
 - e. Environmental characteristics of the hydrologic subunits under consideration,
 - f. Water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area,
 - g. Economic considerations,
 - h. The need for additional housing within the region, and

- i. The need to develop and use recycled water.
- 11. The proposed project will make use of recycled water consistent with the goals of California Water Code, Division 7, Chapter 7, Water Recycling Law.
- 12. The Regional Board considered all environmental factors associated with the discharge of recycled water from MWRP. This project involves the permitting of existing sewerage facilities. As such, this project is categorically exempt from the requirements of the California Environmental Quality Act (CEQA) as provided by Section 15301, and in compliance with Section 15300.2, of California Code of Regulations Title 14.
- 13. The Regional Board has notified the Discharger all known interested parties of its intent to adopt waste discharge requirements for production of recycled water by MWRP.
- 14. In accordance with the *Memorandum Of Agreement Between The Department Of Health Services And The State Water Resources Control Board On Use Of Reclaimed Water*, this Order incorporates any conditions of approval submitted as part of the State Department of Health Services' recommendations into water recycling requirements proposed for adoption by this Regional Board.
- 15. The Regional Board in a public meeting, heard and considered all comments pertaining to the discharge of recycled water from MWRP.

IT IS HEREBY ORDERED THAT the Vallecitos Water District (hereafter Discharger) in order to meet the provisions contained in Division 7 of the California Water Code and Regulations adopted thereunder, shall comply with the following requirements, which supersede the requirements prescribed by Order No. R9-1993-0023, for the discharge and purveyance of disinfected tertiary effluent for recycled water from MWRP:

A. PROHIBITIONS

- 1. Discharge of wastes in a manner other than as described in the findings of this Order is prohibited unless the Discharger obtains revised waste discharge requirements that provide for the proposed change.
- 2. Discharges of treated or untreated solid or liquid waste to a navigable water or tributary of a navigable water are prohibited unless as authorized by an NPDES permit issued by this Regional Board.
- 3. Neither the treatment, storage nor disposal of waste shall create a pollution, contamination or nuisance, as defined by Section 13050 of the California Water Code.
- 4. The discharge of treated wastewater shall not cause a violation of the prohibitions contained in the Basin Plan, incorporated herein by reference.

B. DISCHARGE SPECIFICATIONS

1. The discharge of treated effluent from the MWRP containing pollutants in excess of the following effluent limitations:

CONSTITUENT	Units	MONTHLY AVERAGE ¹	DAILY MAXIMUM ²
Biochemical Oxygen Demand (CBOD ₅ @ 20 °C)	mg/L	30	45
Total Suspended Solids	mg/L	30	45
pH (within limits shown at all times)	pH units	6.0 - 8.5	

- ¹ The monthly average effluent limitation shall apply to the arithmetic mean of the results of all samples collected during each calendar month.
- ² The daily maximum effluent limitation shall apply to the results of a single composite or grab sample representing a 24-hour period.

2. The discharge of treated effluent from the MWRP and to the recycled water use areas containing pollutants in excess of the following effluent limitations is prohibited:

CONSTITUENT	Units	12-MONTH AVERAGE ¹	DAILY MAXIMUM ²
Total Dissolved Solids (TDS)	mg/L	1100	1500
Chloride (Cl)	mg/L	400	500
Manganese (Mn)	mg/L	0.05	0.06
Iron	mg/L	0.3	0.4
Boron (B)	mg/L	0.5	0.6

- ¹ The 12-month average effluent limitation shall apply to the arithmetic mean of the results of all samples collected during the current calendar month and the preceding 11 calendar months.
- ² The daily maximum effluent limitation shall apply to the results of a single composite or grab sample representing a 24-hour period.

3. The median concentration of total coliform bacteria measured in the disinfected tertiary recycled water from MWRP shall not exceed a Most Probable Number

(MPN) of 2.2 per 100 mL, 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 an MPN of 23 per 100 mL in more than one sample in any 30-day period. No sample shall exceed a MPN of 240 total coliform bacteria per 100 mL.

4. The turbidity of the disinfected tertiary recycled water from MWRP shall not exceed a daily average value of 2 NTU (nephelometric turbidity units), shall not exceed 5 NTU more than 5% of the time during a 24-hour period based on the total number of recorded measurements, and shall not exceed 10 NTU at any time.
5. The average daily effluent flow rate for the existing MWRP shall not exceed 2.25 MGD. After the Discharger receives authorization to discharge pursuant to Section C.2 of this Order, the average daily effluent flow rate from the new MWRP shall not exceed 5.0 MGD.

C. FACILITY DESIGN AND OPERATION SPECIFICATIONS

1. PROPER OPERATION

The Discharger shall, at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with conditions of this Order. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this Order.

2. CERTIFICATION REPORT

The Discharger shall submit a report certifying that the treatment and disposal facilities have been constructed as designed and will meet the Discharge Specifications in Section B for the new full design flow of 5.0 MGD for tertiary treatment with disinfection. The design engineer shall affix their signature and engineering license number to the certification report. Prior to exceeding the existing average daily effluent flow rate of 2.25 MGD, the following requirements shall be met:

- a. The certification report is received by the Regional Board,
- b. The Regional Board has been notified of the completion of facilities by the Discharger,

- c. An Inspection of the facilities has been made by the Regional Board,
- d. The Regional Board notifies the Discharger that the new discharge can be initiated.

3. CONSTRUCTION PROGRESS REPORTS

The Discharger shall notify the Regional Board when each new treatment, storage, and disposal component has been completed and certify that the new component has been constructed as designed.

4. ENGINEERING REPORT

The Discharger shall meet the design, operational, and reliability requirements of Articles 7, 8, 9 and 10 of the California Code of Regulations, Title 22, Division 4, Chapter 3. The Discharger shall prepare an engineering report conforming to the California Code of Regulations, Title 22, Engineering Report Guidelines, Sections 3 and 4. The engineering report shall be submitted to the State DHS, County DEH, and the Regional Board.

5. COAGULATION ALTERNATIVE

Coagulation need not be used as part of the treatment process provided that the filter effluent turbidity does not exceed 2 NTU, the turbidity of the influent to the filters is continuously measured, the influent turbidity does not exceed 5 NTU for more than 15 minutes and never exceeds 10 NTU, and that there is capability to automatically activate chemical addition or divert wastewater should the turbidity of the influent to the filters exceed 5 NTU for more than 15 minutes.

6. DISINFECTION PROCESS

The chlorine disinfection process chlorine of recycled water shall comply with all requirements of California Code of Regulations, Title 22, Division 4 and provide 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.

7. OPERATION MANUAL

A copy of the facility operations manual shall be maintained at the Discharger's facility and shall be available to operation personnel and Regional 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:

- a. Alarm set points for secondary turbidity, tertiary turbidity, and chlorine residual.
- b. Levels at which flow will be diverted for secondary turbidity, tertiary turbidity, and chlorine residual.
- c. When to divert flow for high daily and weekly median total coliform.
- d. When the authorities (State DHS, County DEH, Regional Board) will be notified of a diversion.
- e. Names and numbers of those authorities to be notified in case of a diversion.
- f. Frequency of calibration for turbidimeters and chlorine residual analyzers.

8. OPERATORS CERTIFICATION

The Discharger's wastewater treatment facilities shall be supervised and operated by persons possessing certificates of appropriate grade pursuant to Chapter 3, Subchapter 14, Title 23 of the California Code of Regulations.

9. FLOOD PROTECTION

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.

10. RUNOFF PROTECTION

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.

11. MONITORING AND REPORTING

The Discharger shall comply with the attached Monitoring and Reporting Program No. R9-2007-0018 and future revisions thereto as specified by the Regional Board. Monitoring results shall be reported at the intervals specified in Monitoring and Reporting Program No. R9-2007-0018.

D. STANDARD PROVISIONS

1. ENFORCEMENT

The Regional Board may initiate enforcement action against the recycled water agency, which may result in the termination of the recycled water supply, 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.

2. DUTY TO COMPLY

The Discharger must comply with all conditions of this Order. Any noncompliance with this Order constitutes a violation of the California 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 master reclamation permit requirements.

3. ENTRY AND INSPECTION

The Discharger shall allow the Regional 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 California Water Code, any substances or parameters at any location.

4. CIVIL MONETARY REMEDIES

The California Water Code provides that any person who intentionally or negligently violates any master reclamation permit requirements issued, reissued, or amended by this Regional Board shall be liable civilly in accordance with California Water Code section 13350 (d), (e), or (f).

5. PENALTIES FOR INVESTIGATION, MONITORING OR INSPECTION VIOLATIONS

The California Water Code provides that any person failing or refusing to furnish technical or monitoring program reports, as required under this Order, or falsifying any information provided in the monitoring reports is guilty of a

misdemeanor and is subject to a civil liability in accordance with CWC Section 13268.

6. ENDANGERMENT OF HEALTH AND ENVIRONMENT

The Discharger shall report any noncompliance that may endanger health or the environment. Any such information shall be provided orally to the Regional Board within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the Discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected; the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The Regional Board, or an authorized representative, 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 Regional Board within 24 hours:

- a. Any bypass from any portion of the treatment facility. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility to other than a sewer system.
- b. Any discharge of non-disinfected effluent or untreated wastewater resulting from sewer line breaks, obstruction, surcharge, or any other circumstances.
- c. Any treatment plant upset which causes the effluent limitations of this Order to be exceeded including, but not limited to, the following:
 - (1) Failure of chlorination equipment
 - (2) Effluent total coliform bacteria greater than 240 MPN/100 ml
 - (3) Turbidity greater than 10 NTU if distributed to any recycled water user
 - (4) CT less than 450 mg-min/L if distributed to any recycled water user

These incidents shall also be reported orally to the State DHS and County DEH within 24-hours of the incident.

7. PLANT OVERFLOW EVENTS

The Discharger shall report all overflow events that occur at MWRP. For purposes of this reporting requirement, an overflow event is defined as a

discharge of treated or untreated wastewater at a location onsite not authorized by waste discharge requirements and/or NPDES permit 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 this Regional Board's Order No. R9-2007-00015, Waste Discharge Requirements for Sanitary Sewer Agencies in the San Diego Region. Overflows of the kind identified under this provision shall be reported to the Regional Board with the monthly monitoring report in which the overflow occurs.

8. UNAUTHORIZED DISCHARGES OF RECYCLED WATER

Pursuant to CWC Section 13529.2, any person who, without regard to intent or negligence, causes or permits an unauthorized discharge of 50,000 gallons or more of recycled water that has been treated to at least disinfected tertiary 2.2 recycled water or 1,000 gallons or more of recycled water that is treated at a level less than disinfected tertiary 2.2 recycled water in or on any waters of the state, or causes or permits such unauthorized discharge to be discharged where it is, or probably will be, discharged in or on any waters of the state, shall, as soon as (1) that person has knowledge of the discharge, (2) notification is possible, and (3) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify this Regional Board in accordance with reporting requirements in Standard Provision F.6.

9. PRIOR NOTICE OF BYPASS

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, such notice shall be submitted at least 10 days prior to the date of the bypass. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility to other than a sewer system.

10. CORRECTIVE ACTION

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.

11. TREATMENT FAILURE

In an enforcement action, it shall not be a defense for the Discharger that it would have been necessary to halt or reduce the permitted activity in order to

maintain compliance with this Order. Upon reduction, loss, or failure of the treatment facility, the Discharger shall, to the extent necessary to maintain compliance with this Order, control production or all discharges, or both, until the facility is restored or an alternative method of treatment is provided. This provision applies for example, when the primary source of power of the treatment facility is failed, reduced, or lost.

12. HAZARDOUS RELEASES

Except for a discharge which is in compliance with these master reclamation permit requirements, 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 Director of Environmental Health Services, County of San Diego in accordance with California Health and Safety Code section 5411.5 and the Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State toxic disaster contingency plan adopted pursuant to Article 3.7 (commencing with section 8574.7) of Chapter 7 of Division 1 of Title 2 of the Government Code, and immediately notify the State Board or the appropriate Regional 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 prohibition in the applicable Water Quality Control Plan.

13. PETROLEUM RELEASES

Except for a discharge which is in compliance with these master reclamation permit requirements, 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 Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State oil spill contingency plan adopted pursuant to Article 3.5 (commencing with section 8574.1) of Chapter 7 of Division 1 of Title 2 of the Government Code. 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 Section 311 of the Clean Water Act or the discharge is in violation of a prohibition in the applicable Water Quality Control Plan.

14. PERMIT REPOSITORY

A copy of this Order shall be maintained at the Discharger's facility and shall be available to operating personnel at all times.

15. RETENTION OF RECORDS

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. This period may be extended during the course of any unresolved litigation regarding this discharge or when requested by the Regional Board.

16. GENERAL REPORTING REQUIREMENT

The Discharger shall furnish to the Regional Board, within a reasonable time, any information which the Regional Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order. The Discharger shall also furnish to the Regional Board, upon request, copies of records required to be kept by this Order.

17. PERMIT REVISION

This Order may be modified, revoked and reissued, or terminated for cause including, but not limited to, the following:

- a. Violation of any terms or conditions of this Order.
- b. Obtaining this Order by misrepresentation or failure to disclose fully all relevant facts.
- c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

The filing of a request by the Discharger for the modification, revocation and reissuance, or termination of this Order, or notification of planned changes or anticipated noncompliance does not stay any condition of this Order.

18. CHANGE IN DISCHARGE

The Discharger shall file a new Report of Waste Discharge at least 120 days prior to the following:

- a. Addition of a major industrial waste discharge to a discharge of essentially domestic sewage, or the addition of a new process or product by an industrial facility resulting in a change in the character of the wastes.
- b. Significant change in the treatment or disposal method (e.g., change in the method of treatment which would significantly alter the nature of the waste).
- c. Change in the disposal area from that described in the findings of this Order.
- d. Increase in flow beyond that specified in this Order.
- e. Other circumstances that result in a material change in character, amount, or location of the waste discharge.
- f. Any planned change in the regulated facility or activity which may result in noncompliance with this Order.

19. CHANGE IN OWNERSHIP

This Order is not transferable to any person except after notice to the Regional Board. The Discharger shall submit this notice in writing at least 30 days in advance of any proposed transfer. The notice must include a written agreement between the existing and new owner containing a specific date for the transfer of this Order's responsibility and coverage between the current Discharger and the new owner. This agreement shall include an acknowledgement that the existing Discharger is liable for violations up to the transfer date and that the new Discharger is liable from the transfer date on. The Regional 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 California Water Code.

20. INCOMPLETE REPORTS

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 Regional Board, it shall promptly submit such facts or information.

21. REPORT DECLARATION

All applications, reports, or information submitted to the Regional Board shall be signed and certified as follows:

- a. The Report of Waste Discharge shall be signed as follows by either a principal Executive Officer or ranking elected official.

- b. All other reports required by this Order and other information required by the Regional Board shall be signed by a person designated in paragraph (a) of this provision, or by a duly authorized representative of that person. An individual is a duly authorized representative only if all of the following are true:
 - (1) The authorization is made in writing by a person described in paragraph (a) of this provision,
 - (2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, and
 - (3) The written authorization is submitted to the Regional Board.

- c. 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."

22. REGIONAL BOARD ADDRESS

The Discharger shall submit reports required under this Order or other information required by the Regional Board to the following address:

Northern Core Regulatory Unit
California Regional Water Quality Control Board
San Diego Region
9174 Sky Park Court, Suite 100
San Diego, California 92123

E. NOTIFICATIONS

1. VESTED RIGHTS

This Order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, nor protect the Discharger from liability under federal, state or local laws, nor create a vested right for the Discharger to continue the waste discharge.

2. U.S. EPA REVIEW

These requirements have not been officially reviewed by the United States Environmental Protection Agency and are not issued pursuant to section 402 of the Clean Water Act.

3. SEVERABILITY

The provisions of this Order are severable, and if any provision of this Order, or the application of any provision of this Order to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Order, shall not be affected thereby.

4. PREVIOUS ORDERS

The requirements prescribed by this Order supersede the requirements prescribed by Order No. R9-1993-0023.

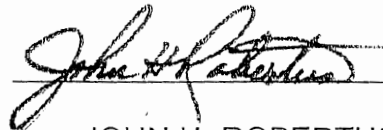
5. EFFECTIVE DATE

This Order becomes effective on the date of adoption by the San Diego RWQCB.

6. CORRESPONDENCE AND REPORT CODING

To ensure that correspondence and reports submitted in compliance with this Order are acknowledged, the following code number must be included in the heading or subject line portion of all correspondence and reports submitted to the Regional Board: "NCRU: 01-0247"

I, John H. Robertus, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Diego Region, on April 11, 2007.



JOHN H. ROBERTUS
Executive Officer

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

**MONITORING AND REPORTING PROGRAM
FOR ORDER NO. R9-2007-0018
FOR
VALLECITOS WATER DISTRICT
MEADOWLARK WATER RECLAMATION PLANT
SAN DIEGO COUNTY**

A. MONITORING PROVISIONS

1. Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring points specified in this Order 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 notification to and the approval of the Regional Board.
2. 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 ± 5 percent from true discharge rates throughout the range of expected discharge volumes. Guidance in selection, installation, calibration and operation of acceptable flow measurement devices can be obtained from the following references:
 - (a) "A Guide to Methods and Standards for the Measurement of Water Flow," U. S. Department of Commerce, National Bureau of Standards, NBS Special Publication 421, May 1975, 97 pp. (Available from the U. S. Government Printing Office, Washington, D. C. 20402. Order by SD Catalog No. C13.10:421.)
 - (b) "Water Measurement Manual," U. S. Department of Interior, Bureau of Reclamation, Second Edition, Revised Reprint, 1974, 327 pp. (Available from the U. S. Government Printing Office, Washington D. C. 20402. Order by Catalog No. 127,19/2:W29/2, Stock No. SIN 24003-0027.)
 - (c) "Flow Measurement in Open Channels and Closed Conduits," U. S. Department of Commerce, National Bureau of Standards, NBS Special Publication 484, October 1977, 982 pp. (Available in paper copy or microfiche from National Technical Information Service (NTIS) Springfield, VA 22151. Order by NTIS No. PB-273-535/5ST.)
 - (d) "NPDES Compliance Sampling Manual," U. S. Environmental Protection Agency, Office of Water Enforcement. Publication MCD-51, 1977, 140 pp.

(Available from the General Services Administration (8FFS), Centralized Mailing Lists Services, Building 41, Denver Federal Center, Denver, CO 80225.

3. Monitoring must be conducted according to United States Environmental Protection Agency test procedures approved under Title 40, Code of Federal Regulations (CFR), Part 136, "Guidelines Establishing Test Procedures for Analysis of Pollutants Under the Clean Water Act" as amended, unless other test procedures have been specified in this Order.
4. All analyses shall be performed in a laboratory certified to perform such analyses by the California Department of Health Services or a laboratory approved by the Regional Board.
5. Monitoring results must be reported on discharge monitoring report forms approved by the Regional Board.
6. If the Discharger monitors any pollutants more frequently than required by this order, using test procedures approved under 40 CFR, Part 136, or as specified in this Order, 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.
7. The Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings, where used, for continuous monitoring instrumentation, 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. This period may be extended during the course of any unresolved litigation regarding this discharge or when requested by the Regional Board.
8. Records of monitoring information shall include:
 - (a) The date, exact place, and time of sampling or measurements;
 - (b) The individual(s) who performed the sampling or measurements;
 - (c) The date(s) analyses were performed;
 - (d) The individual(s) who performed the analyses;
 - (e) The analytical techniques or method used; and
 - (f) The results of such analyses.
9. All monitoring instruments and devices which are used by the Discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy.
10. The Discharger shall report all instances of noncompliance not reported under Reporting Requirement E.7 of this Order at the time monitoring reports are submitted. The reports shall contain the information listed in Reporting Requirement E.7.
11. The monitoring reports shall be signed by an authorized person as required by Reporting Requirement F.21.

12. 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.
13. 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.
14. Sampling and analysis shall, as a minimum, be conducted in accordance with Article 6 of California Code of Regulations, Title 22, Division 4, Chapter 3 (Water Recycling Criteria).

B. EFFLUENT MONITORING

1. Samples of the effluent discharged from MWRP shall be collected at a point downstream of the disinfection process, and prior to any dilution.
2. The Discharger shall determine the volume of recycled water delivered to Carlsbad and Olivenhain Water Districts each calendar month in units of million gallons and report this volume monthly.
3. The Discharger is responsible for monitoring and reporting in accordance with the following criteria:

CONSTITUENT/ PARAMETER	UNIT	TYPE OF SAMPLE	SAMPLING FREQUENCY ^{1,2}	REPORTING FREQUENCY
Flowrate	GPD	Continuous	Continuous	Monthly
Turbidity	NTU	Continuous	*	Monthly
Chlorine Contact Time (CT) ³	mg-min/L	Calculated	**	Monthly
Total Chlorine Residual ³	mg/L	Continuous	***	Monthly
Total Coliform	MPN/100ml	Grab	****	Monthly
Biochemical Oxygen Demand (CBOD ₅ @ 20 C)	mg/L	Composite	3 Times Per Week	Monthly
Total Suspended Solids	mg/L	Composite	3 Times Per Week	Monthly
pH	Unit	Grab	3 Times Per Week	Monthly
Total Dissolved Solids	mg/L	Composite	Monthly	Monthly
Chloride	mg/L	Composite	Monthly	Monthly

CONSTITUENT/ PARAMETER	UNIT	TYPE OF SAMPLE	SAMPLING FREQUENCY ^{1,2}	REPORTING FREQUENCY
Iron (Fe)	mg/L	Composite	Monthly	Monthly
Manganese (Mn)	mg/L	Composite	Monthly	Monthly
Boron (B)	mg/L	Composite	Monthly	Monthly
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
Chromium	mg/L	Composite	Once Every 5 Years	Once Every 5 Years
Copper	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
Selenium	mg/L	Composite	Once Every 5 Years	Once Every 5 Years
Thallium	mg/L	Composite	Once Every 5 Years	Once Every 5 Years

Notes: **MPN/100 ml = Most Probable Number per 100 milliliters**
 mg/L = milligrams per liter
 NTU = Nephelometric Turbidity Units
 dS/m = deciseimens per meter

- ¹ Weekly is defined as a calendar week (Sunday through Saturday). Monthly is defined as a calendar month. Quarterly is defined as a period of three consecutive calendar months beginning on January 1, April 1, July 1, or October 1. Semiannually is defined as a period of six consecutive calendar months beginning on January 1 or July 1. Annually is defined as a calendar year.
- ² The Discharger shall increase the sampling frequency from monthly to weekly, from quarterly to monthly, from semiannually to quarterly, and from annually to semiannually for any noted constituent that exceeds the limit specified by Discharge Specification B.2-B.6 of this Order. The increased frequency of monitoring shall continue until the Discharger achieves compliance with the limitations for three consecutive periods.
- ³ Required if chlorine disinfection process is used.

- * Effluent 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 by averaging the 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 one sample every 1.2 hours may be substituted until the turbidity meter and/or recorder is fixed. The Discharger shall report monthly results of four-hour turbidity readings, average effluent turbidity (24-hours), 95 percentile effluent turbidity (24-hours), and the daily maximum turbidity (daily being defined as the 24-hour period from 12 am to 12 am). Continuous turbidity monitoring must also be provided prior to filtration to ensure adequate process control, and automatic actuated coagulant feed when the turbidity of the secondary treated effluent is greater than 10 NTU.
- ** 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.
- *** Chlorine concentrations shall be recorded by a continuous recording meter. Minimum daily chlorine residual shall be reported monthly.
- **** 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 total coliform bacteria monitoring, running 7-day median determination, and maximum daily coliform reading shall be reported monthly. If the maximum number of total coliform bacteria exceeds a MPN of 23 per 100 mL, the Discharger shall certify whether or not the MPN of 23 per 100 mL was exceeded in the previous 30-day period.

4. The Discharger shall review the monitoring results for compliance with Order No. R9-2007-0018 and submit a statement of compliance as part of this Monitoring and Reporting Program. The statement of compliance shall identify and report all violations of effluent limitations contained in Section B - Discharge Specifications of Order No. R9-2007-0018.

C. FILTRATION PROCESS MONITORING

1. Turbidity of the filter influent and effluent shall be continuously measured. If effluent turbidity exceeds 2 NTU based on a 24-hour average, or if the influent turbidity exceeds 5 NTU for more than 15 minutes or 10 NTU at any time, then the Discharger shall submit a written report of the incident as part of the monthly monitoring report to the Regional Board. The report shall describe the measures taken to automatically activate chemical addition or to divert wastewater.

D. REPORT SCHEDULE

- Monitoring reports shall be submitted to the Regional Board in accordance with the following schedule:

REPORTING FREQUENCY	REPORT PERIOD	REPORT DUE
Monthly	January, February, March, April, May, June, July, August, September, October, November, December	By the 1 st day of the second month following the month of sampling or monitoring
Every 5 Years	January – December	February 1 st

Monitoring reports shall be submitted to:

ATTN: Northern Core Regulatory Program Unit
 California Regional Water Quality Control Board
 San Diego Region
 9174 Sky Park Court, Suite 100
 San Diego, CA. 92123

Ordered by: _____


 JOHN H. ROBERTUS
 Executive Officer

Date: April 11, 2007