

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN DIEGO REGION

**ORDER NO. 2000-177**  
**MASTER RECLAMATION PERMIT**  
**FOR**  
**THE RAMONA MUNICIPAL WATER DISTRICT**  
**SANTA MARIA WASTEWATER TREATMENT PLANT**  
**SAN DIEGO COUNTY**

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

1. Pursuant to the waste discharge requirements contained in Order No. 95-22, as amended by Addenda Nos. 1 and 2, Ramona Municipal Water District (RMWD) discharges up to 1.0 MGD of secondarily treated wastewater from the Santa Maria Wastewater Treatment Plant (SMWWTP), located in Ramona, San Diego County. A portion of the secondarily treated wastewater is discharged to the District's Rangeland Road spray disposal fields in the Ramona HSA (905.41) of the Santa Maria Valley HA (905.40) of the San Dieguito Hydrologic Unit (905.00). Another portion of the secondarily treated wastewater is routed to a tertiary filter plant. Recycled, tertiary water, from the filter plant is pumped for irrigation purposes to the Mount Woodsen Golf Course Development area also located in the Ramona HSA (905.41).
2. Ground water in the Ramona HSA (905.41) is designated as suitable for municipal, domestic, agricultural, and industrial supply. The requirements of this Order are consistent with the Regional Water Quality Control Plan for the San Diego Region.
3. RMWD has promulgated enforceable requirements prescribing recycled water rules and regulations, governing the design and construction of recycled water use facilities and the use of recycled water.
4. The existing recycled water system complies with the regulations set forth in the State Reclamation Criteria codified in Chapter 3 of Title 22 of the California Code of Regulations, including contingency plans describing measures to assure that no untreated or inadequately treated wastewater is delivered to the use area.
5. The existing project makes use of recycled water consistent with the goals of California's Water Recycling Law, codified in Chapter 7 of Division 7 of the California Water Code.
6. This Regional Board has consulted with, and received recommendations of, the State Department of Health Services and any party who requested in writing to be consulted.
7. In December, 1990, the RMWD certified a final Environmental Impact Report in accordance with the California Environmental Quality Act (Public Resources Code

Section 21000 et seq.) for improvements to the SMWWTP site, construction of tertiary filter plant, and expansion of holding ponds at the Rangeland Road site. The project as approved by RMWD will not have a significant effect on water quality.

8. This Regional Board has notified the RMWD and all known interested parties of the intent to prescribe waste discharge requirements for the proposed discharge.
9. This Regional Board considered all comments pertaining to its proposed discharge of waste from SMWWTP.

**IT IS HEREBY ORDERED THAT**, the Ramona Municipal Water District (hereinafter, 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 for the treatment, storage and disposal of wastewater from the Santa Maria Wastewater Treatment Plant:

**A. PROHIBITIONS**

1. Discharges of wastes to lands which have not been specifically described in the report of waste discharge and for which valid waste discharge requirements are not in force are prohibited.
2. 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.
3. 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.
4. The discharge of treated wastewater shall not cause a violation of the prohibitions contained in the Basin Plan.

**B. DISCHARGE SPECIFICATIONS**

1. The 30-day average dry weather effluent flow from the SMWWTP secondary treatment process shall not exceed 1.0 million gallons per day.
2. The 30-day average flow from the SMWWTP tertiary treatment process shall not exceed 0.35 million gallons per day.
3. Discharge of effluent to the Rangeland Road disposal fields shall not exceed a twelve month total of 873.6 acre-feet per year.
4. The discharge of effluent from the SMWWTP shall not contain pollutants in excess of the effluent limitations listed in Table 1:

**Table 1**

CONSTITUENT	12-MONTH AVERAGE <sup>1</sup> (mg/l)	30-DAY AVERAGE <sup>2</sup> (mg/l)	DAILY MAXIMUM <sup>3</sup> (mg/l)
Total Dissolved Solids	800		1000
Chloride	200		250
Sulfate	200		250
Manganese	0.05		0.06
Iron	0.3		0.4
Boron	0.5		0.6
Fluoride	1.0		1.2
Biochemical Oxygen Demand		30	45
Total Suspended Solids		30	45
pH (within limits shown at all times)	6.0-9.0		

1. The 12-month average effluent limitation shall apply to the arithmetic mean of the results of monthly averages of all samples collected during the previous 12 months.
2. The 30-day average effluent limitation shall apply to the arithmetic mean of the results of all samples collected during any 30 consecutive calendar day period.
3. The daily maximum effluent limitation shall apply to the results of a single composite or grab sample.

5. In addition to the limits specified in Table 1, the discharge of effluent to the Mount Woodsen Golf Course shall not exceed the following:

- (a) The median concentration of total coliform bacteria shall not exceed an MPN of 2.2 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 an MPN of 23 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.
- (b) Turbidity concentration will be measured after tertiary filtration but before chlorination and shall not exceed a daily value of 2 NTU (Nephelometric turbidity unit), and shall not exceed 5 NTU more than 5% of the time during a 24-hour period, and shall not exceed 10 NTU at any time.
- (c) Disinfection of tertiary water shall be accomplished by 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 contact time of at least 90 minutes based on peak design flow.

**C. RECYCLED WATER DISTRIBUTION REQUIREMENTS**

The RMWD shall:

1. Periodically review and update its *Rules and Regulations for Recycled Water Use* program as directed by the Regional Board, the State Department of Health

Services (DHS), and the County of San Diego Department of Environmental Health (DEH).

2. Enforce the provisions contained in its approved *Rules and Regulations for Recycled Water Use* program.
3. Conduct recycled water reuse site compliance inspections in accordance with its approved *Rules and Regulations for Recycled Water Use* program.

#### **D. FACILITY DESIGN AND OPERATION SPECIFICATIONS**

##### 1. ENFORCEMENT

The Regional Board may initiate enforcement action against the discharger, 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. 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 agency 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.

##### 3. 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 (DHS, 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.

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, 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.

6. DISINFECTION PROCESS

Disinfection of recycled water shall comply with all requirements of California Code of Regulations, Title 22, Division 4. Disinfection may be accomplished by either:

- (a) 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; or
- (b) 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.

7. 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.

8. FLOOD PROTECTION

All waste treatment, storage and distribution facilities shall be protected against 100-year peak stream flows as defined by the San Diego County flood control agency.

9. 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.

10. MONITORING AND REPORTING

The discharger shall comply with attached Monitoring and Reporting Program No. 2000-177, 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. 2000-177.

**E. BIOSOLIDS SPECIFICATIONS**

1. Collected screenings, sludges, other solids removed from liquid wastes, and filter backwash shall be disposed in a manner approved by the Regional Board.
2. Management of all solids and sludge must comply with all applicable requirements of 40 CFR Parts 257, 258, 501 and 503; CWA Part 405(d), and Title 27, CCR, including all monitoring, record keeping and reporting requirements. Since the State of California, hence the State and Regional Boards, has not been delegated the authority by the USEPA to implement the sludge program, enforcement of sludge requirements of CFR Part 503 is under USEPA's jurisdiction. Once sludge leaves a facility, it is subject to all applicable local, state and federal laws and regulations.
3. All solids and sludge must be disposed of in a municipal solid waste landfill, reused by land application or disposed of in a sludge-only landfill accordance with 40 CFR Parts 503 and 258, and Title 27 CCR. If the discharger desires to dispose of solids or sludge by a different method, a request for permit modification must be submitted to the USEPA and this Regional Board 180 days prior to the initiation of the alternative disposal.
4. Solids and sludge treatment, storage, and disposal or reuse shall not create a nuisance, such as objectionable odors or flies, and shall not result in groundwater contamination.

5. The solids and sludge treatment site and storage site shall have facilities adequate to divert surface water runoff from adjacent areas, to protect the boundaries of the site from erosion, and to prevent drainage from the treatment and storage site. Adequate protection is defined as protection from at least a 100-year storm and protection from the highest possible tidal stage that may occur.
6. The discharge of sewage sludge and solids shall not cause waste material to be in a position where it is, or can be, conveyed from the treatment and storage sites and deposited in the waters of the state.
7. The discharger shall submit a copy of each of the annual reports required by 40 CFR 503 to this Regional Board at the same time those reports are submitted to USEPA. The discharger shall also submit an annual report of the quantity and disposition of sludge generated in the previous calendar year.

## F. STANDARD PROVISIONS

### 1. DUTY TO COMPLY

The discharger must comply with all applicable 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 waste discharge requirements.

The discharger shall ensure that all site-operating personnel are familiar with the content of this Board Order, and shall maintain copies of this Board Order, and *Rules & Regulations for Recycled Water Use* at the site. Personnel must be informed that recycled water meant for those uses described in the Regional Board permit, and is not approved for drinking, handwashing, etc. Personnel must also be informed of the locations of domestic and recycled lines to ensure that the potable and recycled water systems are not interconnected. A qualified person shall be assigned to supervise the use site. The use site supervisor shall attend the San Diego County Water Authority (SDCWA) Use Site Supervisor Class. You may need to contact the SDCWA office for additional information regarding this matter.

### 2. 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 agency'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,
- (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.

3. CIVIL MONETARY REMEDIES

The California Water Code provides that any person who intentionally or negligently violates any waste discharge requirements issued, reissued, or amended by this Regional Board is subject to a civil monetary remedy of up to 20 dollars per gallon of waste discharged or, if a cleanup and abatement order is issued, up to 15,000 dollars per day of violation or some combination thereof.

4. 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 of up to 5,000 dollars for each day in which the violation occurs.

5. ENDANGERMENT OF HEALTH AND ENVIRONMENT

The discharger shall report any noncompliance which 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 treated 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.

6. UNAUTHORIZED DISCHARGES OF RECYCLED WATER

Any person who, without regard to intent or negligence, causes or permits an unauthorized discharge of 50,000 gallons or more of recycled water that has been treated to at least disinfected tertiary 2.2 recycled water or 1,000 gallons or more of recycled water that is treated at a level less than disinfected tertiary 2.2 recycled water in or on any waters of the state, or causes or permits such unauthorized discharge to be discharged where it is, or probably will be, discharged in or on any waters of the state, shall, as soon as (1) that person has knowledge of the discharge, (2) notification is possible, and (3) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the appropriate regional board.

7. PRIOR NOTICE OF BYPASS

If a need for a discharge bypass is known in advance, the discharger shall submit prior notice 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.

8. 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.

9. 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.

10. HAZARDOUS RELEASES

Except for a discharge which is compliance with these waste discharge 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.

11. 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.

12. 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.

13. GENERAL REPORTING REQUIREMENT

The discharger shall furnish to this 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.

14. 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 or
- (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.

15. 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 which 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.

16. 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 discharger containing a specific date for the transfer of this Order's responsibility and coverage between the current discharger and the new discharger. This agreement shall include an acknowledgement that the existing discharger is liable for violations up to the transfer date and that the new discharger is liable from the transfer date on. The 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.

17. 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.

18. 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:

1. For a corporation - by a principal executive officer of at least the level of vice-president.
2. For a partnership or sole proprietorship - by a general partner or the proprietor, respectively.
3. For a municipality, state, federal or other public agency - 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."

19. REGIONAL BOARD ADDRESS

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

California Regional Water Quality Control Board  
San Diego Region  
9771 Clairemont Mesa Blvd, Suite A  
San Diego, California 92124-1331

**G. 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. EFFECTIVE DATE

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

Order No. 95-22 with addenda are superceded upon adoption of this order.

*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 September 13, 2000.*

  
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JOHN H. ROBERTUS  
Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN DIEGO REGION

**MONITORING AND REPORTING PROGRAM NO. 2000-177  
FOR  
RAMONA MUNICIPAL WATER DISTRICT  
SANTA MARIA WASTE WATER TREATMENT 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. S/N 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 forms acceptable to 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 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 measurement;
  - 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 Standard Provision F.18 (Report Declaration) of this Order at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision F.18.
11. The monitoring reports shall be signed by an authorized person as required by Standard Provision F.18 (Report Declaration).
12. 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.
13. A composite sample is defined as a combination of at least eight sample aliquot of at least 100 milliliters, collected at periodic intervals during the operating hours of a facility over a 24 hour period. For volatile pollutants, aliquot 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. Aliquot may be collected manually or automatically.
14. Sampling and analysis of treatment plant effluent shall, as a minimum, be conducted in accordance with Article 6 of the California Code of Regulations, Title 22, Division 4, Chapter 3 (Reclamation Criteria).
15. Detection methods used for coliforms (total and fecal) shall be those presented in the most recent edition of *Standard Methods for the Examination of Water and Wastewater* or any improved method approved by the Executive Officer.
16. The purpose of this monitoring program is to:
  - a. Determine compliance with the terms and conditions of Order No. 2000-177.
  - b. Determine that the applicable State and federal water quality standards are met.
  - c. Measure the effectiveness of best management practices at the facility to reduce or prevent pollutants in storm water discharges.

**B. EFFLUENT MONITORING**

**1. SECONDARY EFFLUENT**

Secondary effluent from the SMWWTP shall be sampled at the wetwell downstream to the secondary clarifiers prior to the final effluent pipeline.

The following shall constitute the SECONDARY effluent monitoring program for SMWWTP specific to this order:

<b>MONITORING PROGRAM</b>				
Determination	Unit	Sample Type	Sampling Frequency <sup>1</sup>	Reporting Frequency
Secondary Effluent Flowrate	MGD	Continuous	Continuous <sup>2</sup>	Monthly
Secondary Effluent to Disposal Fields	acre-ft	-----	Monthly	Monthly <sup>3</sup>
Biochemical Oxygen Demand (5-day @ 20° C)	mg/l	Composite	Quarterly	Quarterly
Total Suspended Solids	mg/l	Composite	Quarterly	Quarterly
PH	Units	Composite	Quarterly	Quarterly
Total Dissolved Solids	mg/l	Composite	Quarterly	Quarterly
Chloride	mg/l	Composite	Quarterly	Quarterly
Adjusted Sodium Adsorption Ratio <sup>4</sup>	----	Composite	Quarterly	Quarterly
Sulfate	mg/l	Composite	Quarterly	Quarterly
Iron	mg/l	Composite	Quarterly	Quarterly
Manganese	mg/l	Composite	Quarterly	Quarterly
Boron	mg/l	Composite	Quarterly	Quarterly
Aluminum	mg/l	Composite	Annual	Annual
Arsenic	mg/l	Composite	Annual	Annual
Barium	mg/l	Composite	Annual	Annual
Cadmium	mg/l	Composite	Annual	Annual
Chromium	mg/l	Composite	Annual	Annual
Copper	mg/l	Composite	Annual	Annual
Lead	mg/l	Composite	Annual	Annual
Zinc	mg/l	Composite	Annual	Annual
Mercury	mg/l	Composite	Annual	Annual
Selenium	mg/l	Composite	Annual	Annual
Silver	mg/l	Composite	Annual	Annual

<sup>1</sup>The discharger shall increase the sampling frequency from quarterly to monthly for any noted constituent that exceeds the limit specified in Discharger Specification B of this Order. The monthly monitoring shall continue until the discharger achieves compliance with the limitations for two consecutive months. After compliance is achieved, the discharger shall resume sampling at the quarterly frequency.

<sup>2</sup>Secondary effluent flow rate shall be measured or calculated on a continuous basis. Daily flow rates and monthly average flow rates shall be maintained and reported monthly.

<sup>3</sup>The total volume discharged to the disposal field shall be reported for the twelve months previous to the reporting month.

<sup>4</sup>The adjusted sodium adsorption ratio is calculated as follows:

Adjusted Sodium Adsorption Ratio (Adj. SAR):  $\frac{Na}{((Ca_x + Mg)/2)^{0.5}}$ , where Na and Mg are in milliequivalent per liter (me/l)

Ca<sub>x</sub> is a modified Ca value calculated using Table 3-2 contained in *Irrigation with Reclaimed Municipal Wastewater, A Guidance Manual*.

2. TERTIARY EFFLUENT

Turbidity in the tertiary effluent from the Filter Plant shall be sampled at the piping between filter and clearwell, upstream of the overflow to the mudwell.

Chlorine residual and coliform count in the tertiary effluent from the Filter Plant shall be sampled a point just downstream of the clearwell.

The following shall constitute the TERTIARY effluent monitoring program specific to this order:

MONITORING PROGRAM				
Determination	Unit	Sample Type	Sampling Frequency	Reporting Frequency
Tertiary Effluent Flowrate	MGD	Continuous	Continuous	Monthly <sup>1</sup>
Chlorine Residual	mg/l	Continuous	Continuous	Monthly <sup>2</sup>
Chlorine Residual x Modal Contact Time (CT)	mg-min/l	Calculated	*	Monthly
Coliform	MPN/100 ml	Grab	**	Monthly
Turbidity	NTU	Continuous	***	Monthly

<sup>1</sup>The total volume of tertiary effluent discharged to the Mount Woodsen Golf Course shall be reported for the 30 days previous to the reporting month.

<sup>2</sup>Chlorine residual shall be measured using a continuous recording chlorine analyzer and minimum daily value shall be reported for each of the 30 days previous to the reporting month.

\* A chlorine disinfection process following filtration that provides a CT value of not less than 450 mg-min/l at all times with a modal contact time of at least 90 minutes, based on peak dry weather design flow. The CT compliance requirement shall be determined daily based on low chlorine residual and/or peak flow.

\*\* Samples for 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. The sample shall be taken from the disinfected effluent and shall be analyzed by a DHS approved laboratory.

\*\*\* Turbidity analysis shall be performed after tertiary filtration but before chlorination. Turbidity analysis shall be continuous, performed by a continuous recording turbidimeter. Compliance with the daily average operating filter effluent turbidity of 2 NTU shall be determined by averaging the levels of recorded turbidity taken at 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 recorder fail, grab sampling at a minimum frequency of 1.2 hours may be substituted for a period of up to 24-hours. The results of the daily average turbidity determinations shall be reported monthly.

24-HOUR REPORTING:

The following failures should initiate a tertiary filter plant shut down, diversion of inadequately treated wastewater and notification to the Regional Board, DHS, and County of San Diego within 24-hours:

- a. Failure of Chlorination Equipment
- b. Effluent Total Coliform MPN greater than 240/100 milliliters
- c. Turbidity greater than 10 NTU
- d. CT less than 450 (mg-min)/l

**C. GROUND WATER MONITORING**

The following shall constitute the monitoring program for Ground Water specific to this order:

1. Representative ground water samples from wells No. 1, 2, 13, 21, 22, and 'R' shall be collected and analyzed as indicated below:

<b>MONITORING PROGRAM</b>				
Determination	Unit	Sample Type	Sampling Frequency	Reporting Frequency
Total Dissolved Solids	mg/l	Grab	Annual	Annual
Chloride	mg/l	Grab	Annual	Annual
Sulfate	mg/l	Grab	Annual	Annual
Nitrate (as NO <sub>3</sub> )	mg/l	Grab	Annual	Annual
Iron	mg/l	Grab	Annual	Annual
Manganese	mg/l	Grab	Annual	Annual
Boron	mg/l	Grab	Annual	Annual
Fluoride	mg/l	Grab	Annual	Annual

**D. RECYCLED WATER USE REPORTING**

1. The RMWD shall submit a quarterly summary report for total volume of recycled water discharged to the Rangeland Road disposal field site and to the Mount Woodsen Golf Course development site for each month of the reporting period. The report shall include the name of the on-site recycled water user supervisor and phone number.
2. The RMWD shall submit an annual report of number of site inspections it conducted at the Rangeland Road disposal field site and the Mount Woodsen Golf Course development site. The annual report shall identify any violations of the District's approved rules and regulations for recycled water use, and description of corrective actions taken.
3. The RMWD shall submit an annual statement certifying that no runoff or surfacing of effluent from the Rangeland Road disposal field site to Santa Maria Creek has occurred.

**E. BIOSOLIDS REPORTING**

The discharger shall submit a copy of each of the annual reports required by 40 CFR 503 to this Regional Board at the same time those reports are submitted to USEPA. The Supplier shall also submit an annual report of the quantity and disposition of sludge generated in the previous calendar year.

**F. REPORTING 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 30 <sup>th</sup> day of the following month
Quarterly	January - March April - June July - September October - December	April 30 July 30 October 30 January 30
Annual	January - December	January 30

Monitoring reports shall be submitted to:

POTW Compliance Unit  
California Regional Water Quality Control Board  
San Diego Region  
9771 Clairemont Mesa Blvd., Suite A  
San Diego, CA 92124-1324

Ordered by

  
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JOHN H. ROBERTUS  
Executive Officer  
September 13, 2000