

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

ORDER NO. 2000-10
MASTER RECYCLED WATER PERMIT
FOR THE PRODUCTION AND PURVEYANCE
OF RECYCLED WATER
FOR
SAN ELIJO JOINT POWERS AUTHORITY,
SAN DIEGUITO WATER DISTRICT,
SANTA FE IRRIGATION DISTRICT, and
CITY OF DEL MAR

SAN ELIJO WATER RECLAMATION FACILITY
SAN DIEGO COUNTY

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

1. Order No. 93-71, *Waste Discharge Requirements for the San Elijo Joint Powers Authority, San Elijo Water Pollution Control Facility, San Diego County*, was adopted by this Regional Board on June 21, 1993, and subsequently amended by Addendum No. 1 on November 15, 1993.
2. On November 5, 1999, the San Elijo Joint Powers Authority (SEJPA) submitted a master recycled water permit application for its San Elijo Water Reclamation Facility (SEWRF). The expected completion date of the water reclamation project is May 2000. The upgraded plant is expected to produce 2.48 million gallons per day (mgd) of reclaimed water at an average day peak demand.
3. In addition to SEJPA, the San Dieguito Water District, Santa Fe Irrigation District and the City of Del Mar propose to distribute recycled water produced at the SEWRF to users within their respected jurisdictions.
4. The Regional Board, acting in accord 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, and a policy for regulating the discharge of recycled water to comply with water quality objectives. The requirements of this Order are consistent with the Basin Plan.
5. The recycled water produced at the SEWRF will be distributed to the following hydrologic areas (HA): Carlsbad HA, San Dieguito HA and Solana Beach HA.

- a) The Basin Plan exempts ground water south of Batiquitos Lagoon from any beneficial uses in the Batiquitos Hydrological Subarea (HSA) (904.51). All recipients of recycled water under this order are south of the lagoon and so are exempt from beneficial use designations.
 - b) In the San Elijo HSA (904.61), the Basin Plan establishes municipal and domestic supply as a potential beneficial use of ground water and agricultural supply and industrial service supply as present beneficial uses of ground water.
 - c) The ground water beneficial uses in the Solana Beach HA (905.10) are for municipal, agricultural supply and industrial service supply.
6. The proposed SEWRF will make use of recycled waters that would otherwise be discharged to the San Elijo Ocean Outfall. The program also reduces SEJPA's need for imported water.
 7. Sludge is anaerobically digested and mechanically dewatered using belt filter presses to produce biosolids which are used offsite. Grit and screenings are removed monthly and disposed of at the Copper Mountain Landfill in Arizona.
 8. SEJPA forwarded recycled water rules and regulations that had been developed by the three anticipated purveyors, SDWD, SFID, and City of Del Mar. Recycled water rules and regulations govern the design and construction of recycled water use facilities and the use of recycled water.
 9. SEJPA submitted an Engineering Report as part of their report of waste discharge, describing how their proposed recycled water system will comply with the regulations set forth in Title 22, Chapter 3 *Reclamation Criteria*. Engineering reports also include contingency plans which describe how a recycled water producer will assure that no untreated or inadequately treated wastewater is delivered to the use area.
 10. The proposed project will make use of recycled water consistent with the goals of California Water Code, Division 7, Chapter 7, *Water Recycling Law*.
 11. Pursuant to California Water Code (CWC) section 13523.1, this Regional Board, after consulting with, and receiving the recommendations of, the State Department of Health Services and any party who has requesting in writing to be consulted and with the consent of the proposed permute, issues a master reclamation permit to the recycled water supplier in lieu of issuing waste discharge requirements pursuant to CWC section 13263 or water reclamation requirements pursuant to CWC Section 13523.

12. As specified by California Water Code (CWC) section 13523.2, this Order includes the following:
 - Waste discharge requirements adopted pursuant to Article 4;
 - Requirements that the permittee comply with the uniform statewide criteria established by the State Department of Health Services pursuant to section 13521 and other applicable permit conditions for the use of recycled water;
 - Requirements for the discharger to establish and enforce rules and regulations for recycled water users in accordance with statewide reclamation criteria;
 - Requirements for the submittal of quarterly recycled water use summary reports;
 - Requirements for the recycled water agency to conduct periodic inspections of the recycled water use sites; and
 - Other requirements determined to be appropriate by this Regional Board.

13. On March 11, 1993, the Board of Directors of the SEJPA conducted a public hearing, received public testimony and all written and oral comments in response to the draft and final Environmental Impact Report; considered the *San Elijo JPA Reclaimed Water Treatment, Distribution, and Storage System Final Environmental Impact Report SCH. No. 92091009*, for compliance with the California Environmental Quality Act (CEQA) Guidelines; and adopted Resolution No. 93-2, *A Resolution of the Board of Directors of the San Elijo Joint Powers Authority Certifying a Final Environmental Impact Report and Approving the Implementation of the Reclaimed Water Treatment, Distribution and Storage Facilities*.

14. 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 for 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,
 - i) Need to develop and use recycled water.

15. The Regional Board has considered all water resource related environmental factors associated with the proposed discharge of waste from the SEWRF.
16. The Regional Board has notified SEJPA and all known interested parties of the intent to prescribe waste discharge requirements for the proposed discharge.
17. The Regional Board in a public meeting heard and considered all comments pertaining to the proposed discharge of waste from SEWRF.

IT IS HEREBY ORDERED THAT, the San Elijo Joint Powers Authority (hereinafter Producer) and San Dieguito Water District, Santa Fe Irrigation District and City of Del Mar (hereinafter Distributors), 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 for the discharge and purveyance of recycled water from the SEWRF.

A. DISCHARGE SPECIFICATIONS – The Recycled Water Producer shall comply with the following:

1. Recycled water from the SEWRF shall not contain constituents in excess of the following limitations.

CONSTITUENT	12-MONTH AVERAGE ¹	30-DAY AVERAGE ² (mg/l)	DAILY MAXIMUM ³ (mg/l)
Total Dissolved Solids	1,200 ⁴		1,300
Chloride	400		450
Sulfate	400		450
Adjusted Sodium Adsorption Ratio	6.5		
Manganese	0.15		
Iron	0.3		
Boron	0.75		
Fluoride	1.0		
Coliform		*	*
Turbidity		**	**
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.
4. The 12-month average concentration of the discharge shall not exceed the lesser of 1,200 mg/l or the imported water supply concentration plus an incremental increase equal to the typical incremental increase added to the water supply which has been used for domestic purposes.

- * The median concentration of total coliform bacteria measured in the disinfected recycled water effluent from the SEWRF 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.
 - ** Turbidity concentration of the recycled water produced at the SEWRF shall not exceed a daily average value of 2 NTU (Nephelometric turbidity unit), shall not exceed 5 NTU more than 5% of the time during a 24-hour period and shall not exceed 10 NTU at any one time.
2. Discharges to a landscape impoundment must be terminated whenever an overflow of the impoundment is imminent.
 3. A 30-day average dry weather flow from the tertiary portion of the plant at the SEWRF shall not exceed 2.48 million gallons per day unless the Producer obtains revised waste discharge requirements for the proposed increased flow.

B. RECYCLED WATER PURVEYANCE REQUIREMENTS

1. Prior to the initiation of the purveyance of recycled water project, the Producer or a responsible Distributor must complete all of the following:
 - a. Develop and submit for approval *Rules and Regulations for Recycled Water Users* governing the design and construction of recycled water use facilities and the use of recycled water to the Regional Board, the State Department of Health Services (DHS) and the County of San Diego Department of Environmental Health (DEH). Rules and regulations shall, at a minimum, include the requirements which are contained in Attachment No. 1 of this Order.
 - b. Develop and submit for approval a program to conduct compliance inspections of recycled water reuse sites to the Regional Board, DHS and DEH. Inspections shall determine the status of compliance with the Distributor's approved rules and regulations for recycled water users.
 - c. Submit a report to the State Department of Health Services and the County of San Diego Department of Environmental Health containing the information listed below. The Agency may submit a Master Plan 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:
 - 1) 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.

- 2) The average number of persons estimated to be served at each use area on a daily basis.
 - 3) The specific boundaries of the proposed use site area including a map showing the location of each facility, drinking water fountain and impoundment to be served.
 - 4) The person or persons responsible for operation of the recycled water system at each use area.
 - 5) The specific use to be made of the recycled water at each use area.
 - 6) The methods to be used by the Agency 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.
 - 7) Plans and specifications shall include the following and shall be submitted to the State and County Department of Health for approval:
 - a. Proposed piping system to be used,
 - b. Pipe locations of both the recycled and potable systems,
 - c. Type and location of the outlets and plumbing fixtures that will be accessible to the public,
 - d. The methods and devices to be used to prevent backflow of recycled water into the public water system,
 - e. Plan notes relating to recycled water specific installation and use requirements.
2. Subsequent to initiation of the purveyance of recycled water and prior to providing recycled water to a new use site, the responsible agency shall do the following:

- a) Submit for review and approval a report that either certifies that the project conforms with what is described in the master plan or information to supplement what is described in the master plan to the State and County Health Departments. A certification report shall document that all criteria described in *Recycled Water Purveyance Requirements B.1c* has been submitted to and approved by the appropriate regulatory agency. Information submitted as a supplement to the master plan shall document compliance with any criteria, as described by *Recycled Water Purveyance Requirements B.1c*, not met through submittal of the master plan.
 - b) Submit for review and approval documentation confirming the information submitted as part of Monitoring and Reporting Program No. 2000-10, Recycled Water Users Summary Report B.2a to the Regional Board.
3. The responsible agency shall do the following for all reuse sites:
- a) Enforce recycled water rules and regulations,
 - b) Conduct recycled water reuse site compliance inspections in accordance with the program submitted in compliance with *Recycled Water Purveyance Requirements B.1b* of this Order,
 - c) Notify the State Department of Health Services and the County of San Diego Department of Environmental Health of any incidence of recycled water backflow into the potable water system as soon as possible, but in no case later than 24 hours of finding the incident,
 - d) Maintain a current list of all on-site recycled water supervisors.

C. FACILITY DESIGN AND OPERATION SPECIFICATIONS

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. PROPER OPERATION

The Producer and Distributors 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. CERTIFICATION REPORT

The Producer shall submit a report which documents that the SEWRF facilities have been constructed as proposed in SEJPA's report of waste discharge. Recycled water shall not be purveyed to a user until all of the following have occurred:

- a. The certification report is received and approved by the Regional Board Executive Officer,
- b. The Title 22 report and the rules and regulations for recycled water reuse report is approved by the State and County Health Departments,
- c. The Regional Board Executive Officer has been notified of the completion of facilities by the Producer,
- d. An inspection of the facilities has been made by staff of the Regional Board,
- e. The Regional Board Executive Officer notifies the Producer by letter that recycled water purveyance can be initiated.

4. OPERATION MANUAL

A copy of the facility operations manual shall be maintained at the Producer'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 Producer'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 purveyance 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 Producer and Distributors shall comply with attached Monitoring and Reporting Program No. 2000-10, and future revisions thereto as specified by the Executive Officer. Monitoring results shall be reported at the intervals specified in Monitoring and Reporting Program No. 2000-10.

D. BIOSOLIDS SPECIFICATIONS

1. Collected screenings, sludges, other solids removed from liquid wastes, and filter backwash shall be disposed in a manner approved by the Executive Officer.
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 Recycled Water Agency shall submit a copy of each of the annual reports required by 40 CFR 503 to this Regional Board Executive Officer at the same time those reports are submitted to USEPA. The Recycled Water Agency shall also submit an annual report of the quantity and disposition of sludge generated in the previous calendar year.

E. STANDARD PROVISIONS

1. DUTY TO COMPLY

The Producer and Distributors 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.

2. ENTRY AND INSPECTION

The Producer and Distributors 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 Producer and/or Distributors shall report any noncompliance which may endanger health or the environment. Any such information shall be provided orally to the Executive Officer within 24 hours from the time the Recycled Water Agency becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the Recycled Water Agency 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 Executive Officer, 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 Executive Officer 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 Producer and/or Distributors 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 Producer and/or Distributors 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 Producer and/or Distributors 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 Producer and/or Distributors 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 Recycled Water Agency is in violation of a prohibition in the applicable Water Quality Control Plan.

11. PETROLEUM RELEASES

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

12. PERMIT REPOSITORY

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

13. RETENTION OF RECORDS

The Producer 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.

14. GENERAL REPORTING REQUIREMENT

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

15. 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 Producer and/or Distributors 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.

16. CHANGE IN DISCHARGE

The Producer 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.

17. CHANGE IN OWNERSHIP

This Order is not transferable to any person except after notice to the Regional Board. The Producer 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 Recycled Water Agency containing a specific date for the transfer of this Order's responsibility and coverage between the current Recycled Water Agency and the new Recycled Water Agency. This agreement shall include an acknowledgement that the existing Recycled Water Agency is liable for violations up to the transfer date and that the new Recycled Water Agency 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 Recycled Water Agency and incorporate such other requirements as may be necessary under the California Water Code.

18. INCOMPLETE REPORTS

Where the Recycled Water Agency 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.

19. 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 Executive Officer 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 Executive Officer.
- 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."

20. REGIONAL BOARD ADDRESS

The Recycled Water Agency shall submit reports required under this Order or other information required by the Executive Officer to the following address:

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

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 Recycled Water Agency from liability under federal, state or

local laws, nor create a vested right for the Recycled Water Agency 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.

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 March 8, 2000.



JOHN H. ROBERTUS
Executive Officer

ATTACHMENT NO.1

TO

ORDER NO. 2000-10

RULES AND REGULATIONS FOR RECYCLED WATER USE PROJECTS

Pursuant to California Water Code (CWC) Section 13523.1(b)(3), this Order requires the recycled water agency 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 with the following criteria:

- Title 22, Division 4, Chapter 3, *Wastewater Reclamation Criteria*;
- Title 17, Division 1, Chapter 5, Group 4, Article 1 & 2, of the California Code of Regulations;
- The State Department of Health Services (DOHS) *Guidelines For Use of Recycled Water, Guidelines for Use of Recycled Water for Construction Purposes, and the County of San Diego Department of Environmental Health Recycled Water Plan Check and Inspection Manual*;
- 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 DOHS.

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

1. The use of recycled water shall not cause a pollution, contamination or nuisance, as defined by Section 13050 of the California Water Code.
2. The Recycled Water Agency, the Regional Board, the State and Local Health Department, 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 Recycled Water Agency's rules and regulations.
3. The recycled water user shall provide written notification, in a timely manner, to the Recycled Water Agency of any material change or proposed change in the character of the use of recycled water.

4. Prior to the initiation of recycled water service, the recycled water user shall submit plans and specifications for recycled water distribution facilities to the Recycled Water Agency.
5. 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 Recycled Water Agency'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 State and County Health Departments.
6. The Recycled Water Agency may terminate service to a recycled water user who uses, transports, or stores such water in violation of the Recycled Water Agency's rules and regulations.
7. 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 Regional Board Executive Officer approves relaxed storm protection measures for the facility.
8. 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 Regional Board Executive Officer approves relaxed storm protection measures for the facility.
9. The Regional Board may initiate enforcement action against any recycled water user who discharges recycled water in violation of any applicable discharge requirement prescribed by the Regional Board or in a manner which creates or threatens to create conditions of pollution, contamination or nuisance, as defined in Water Code Section 13050.
10. 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.
11. 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:
 - a. A geological investigation demonstrates that an aquitard exists at the well between the uppermost aquifer being drawn from and the ground surface.
 - b. The well contains an annular seal that extends from the surface into the aquitard.

- c. The well is housed to prevent any recycled water spray from coming into contact with the wellhead facilities.
 - d. The ground surface immediately around the wellhead is contoured to allow surface water to drain away from the well.
 - e. The owner of the well approves of the elimination of the buffer zone requirement.
12. Impoundment of disinfected tertiary recycled water shall not occur within 100 feet of any domestic water supply well.
13. Irrigation with, or impoundment of, disinfected secondary-2.2 or disinfected secondary -23 recycled water shall not take place within 100 feet of any domestic water supply well.
14. Irrigation with, or impoundment of, undisinfected secondary recycled water shall not take place within 150 feet of any domestic water supply well.
15. Reclaimed water facilities shall be operated in accordance with best management practices (BMP's) to prevent direct human consumption of reclaimed water and to minimize misting, ponding, and runoff. BMP's shall be implemented that will minimize both public contact and discharge onto areas not under customer control.
16. Irrigation with reclaimed water shall be during periods of minimal human use of the service area. Consideration shall be given to allow a adequate dry-out time before the irrigated area will be used by the public.
17. 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.
18. 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.
19. 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.
20. 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 : "RECYCLED WATER - DO NOT DRINK". Lettering shall be of a size easily readable by the public. A pictorial icon with the international "do not drink" symbol shall accompany the written warning.

21. No physical connection shall be made or allowed to exist between any recycled water system and any separate system conveying potable water.
22. 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.
23. 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 Sections 7602(a) and 7603(a) of Title 17 and the approval of the public water system has been obtained. If a "Swivel-ell" type connection is used it must be used in accordance with the provisions of the Department of Health Services 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, Division 1, Chapter 5, Group 4, Article 2.
24. No person other than the Recycled Water Agency shall deliver recycled water to a facility. Connection to the irrigation system by an individual residence is prohibited.
25. 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.
26. Reuse site shut down tests and inspections shall be monitored by the County of San Diego Department of Environmental Health or the State Department of Health Services.
27. Customer complaints concerning recycled water use that may involve public illness shall be reported to the County of San Diego Department of Environmental Health and the State Department of Health Services, and to the Recycled Water Agency who shall maintain a log of all customer complaints regarding recycled water.
28. Any backflow prevention device installed to protect the public water system shall be inspected and maintained in accordance with Section 7605 of Title 17.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

MONITORING AND REPORTING PROGRAM NO. 2000-10
FOR
SAN ELIJO WATER RECLAMATION FACILITY
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. 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.
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 Reporting Declaration D.19 of this Order at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision D.19.
11. The monitoring reports shall be signed by an authorized person as required by Reporting Declaration D.19.
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. 2000-10.
- 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. The following shall constitute the tertiary effluent monitoring program for SEWRF specific to this order.

MONITORING PROGRAM				
Determination	Unit	Sample Type	Sampling Frequency	Reporting Frequency
Flowrate (tertiary)	GPD	Continuous	Continuous	Monthly
Carbonaceous Biochemical Oxygen Demand (5-day @ 20° C)	Mg/l	Composite	Monthly ¹	Quarterly
Total Suspended Solids	Mg/l	Composite	Monthly ¹	Quarterly
PH	Units	Composite	Monthly ¹	Quarterly
Total Dissolved Solids	Mg/l	Composite	Quarterly ¹	Quarterly
Chloride	Mg/l	Composite	Quarterly ¹	Quarterly
Adjusted Sodium Adsorption Ratio ²		Composite	Quarterly ¹	Quarterly
Sulfate	Mg/l	Composite	Quarterly ¹	Quarterly
Iron	Mg/l	Composite	Quarterly ¹	Quarterly
Manganese	Mg/l	Composite	Quarterly ¹	Quarterly
Boron	Mg/l	Composite	Quarterly ¹	Quarterly
Chlorine Residual				
Coliform	MPN/100 ml	Grab	*	Monthly
Turbidity	NTU	Continuous	**	Monthly

* 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.

** Turbidity analysis shall be performed by a continuous recording turbidimeter. From the continuous recording turbidimeter, the discharger shall report on a daily log whether the estimated average value is above or below 2 NTU's each day, if the turbidity value exceeds 5 NTU's more than 5% of the time during a 24-hour period and shall not exceed 10 NTU at any time.

1 The discharger shall increase the sampling frequency from monthly to weekly and from annually to quarterly for any noted constituent that exceeds the limit specified by Discharger Specification A.1 of **Order 2000-10**. Weekly or quarterly monitoring shall continue until the discharger achieves compliance with the limitations for three consecutive periods. After compliance is achieved, the discharger shall resume sampling at the specified frequency.

2 The adjusted sodium adsorption ratio is calculated as follows:

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

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

Note: MGD = million gallons per day
Mg/l = milligrams per liter
NTU = Nephelometric Turbidity Units
Mmho/cm = inverse of milliohms per centimeters
MPN/100 ml = Most Probable Number per 100 milliliters

3. The monitoring report shall indicate the flowrate and Title 22 levels being achieved in the effluent discharged for land disposal and/or reclamation from the SEWRF. Flowrate reported in the monitoring report shall be representative of the flow discharged from the Title 22 treatment facility.

C. FILTRATION PROCESS MONITORING

If coagulation is not used as part of the treatment process, the turbidity of the filter influent and effluent shall be continuously measured. The discharger shall report orally to the Regional Board staff within 24-hours if effluent turbidity exceed 2 NTU or if the influent turbidity exceeded 5 NTU, and shall describe the measures taken to automatically activate chemical addition or to divert wastewater should the turbidity of the influent to the filters exceed 5 NTU. The discharger shall submit a written report of the incident as part of the monthly monitoring report.

D. RECYCLED WATER USERS SUMMARY REPORT

1. The SEJPA shall submit a quarterly reclaimed water users summary report, compiling reports from the Recycled Water Distributors, that contains the following information:
 - a. Total volume of reclaimed water supplied to all reclaimed water users for each month of the reporting period.
 - b. Total number of reclaimed water use sites.
 - c. Address of the reclaimed water use site.
 - d. Basin Plan name and number of hydrologic subarea underlying the reclaimed water use site.

2. Annually the SEJPA shall submit a reclaimed water users compliance report containing the following information:

a. **Recycled water use site summary information**

The following information shall be submitted for each reclaimed water use site.

- 1) Name of the recycled water use site
- 2) Owner of the recycled water use facility
- 3) Name of the recycled water use supervisor
- 4) Phone number of the recycled water use supervisor
- 5) Mailing address of the recycled water use supervisor, if different from the site address
- 6) Volume of recycled water use site on a monthly basis

b. **Recycled water use site inspections**

Number of recycled water use site inspections conducted by distributors' staff and identification of sites inspected for the reporting period.

c. **Recycled water user violations of the producer/distributor's rules and regulations**

The producer/distributors shall identify all reclaimed water users known by the producer/distributors to be in violation of the producer/distributors' rules and regulations for the reclaimed 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.

D. REPORTING

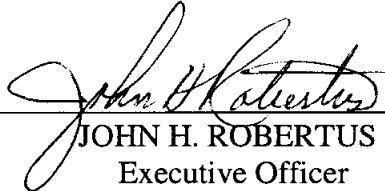
Monitoring reports shall be submitted to the Regional Board in accordance with the following schedule:

<u>Reporting Frequency</u>	<u>Report Period</u>	<u>Report Due</u>
Quarterly	January - March	April 30
	April - June	July 30
	July - September	October 30
	October - December	January 30
Annual	January - December	January 30

Monitoring reports shall be submitted to:

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

Ordered by



JOHN H. ROBERTUS

Executive Officer
March 8, 2000