CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

ORDER NO. R9-2002-0336

MASTER RECLAMATION PERMIT
WITH WASTE DISCHARGE REQUIREMENTS
FOR THE PRODUCTION AND PURVEYANCE OF RECYCLED WATER

FOR

VALLEY CENTER MUNICIPAL WATER DISTRICT
ORCHARD RUN WATER RECLAMATION FACILITY
SAN DIEGO COUNTY

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

1. On September 20, 2000, the Valley Center Municipal Water District (hereinafter VCMWD) submitted a Report of Waste Discharge (RWD) for the Orchard Run Water Reclamation Facility. The submittal of additional information completed the RWD on October 28, 2002.

2. The proposed Orchard Run Water Reclamation Facility (hereinafter ORWRF) is a tertiary wastewater treatment facility designed for an average dry-weather flow of 77,000 gallons per day, an average wet-weather flow of 84,000 gallons per day, and an instantaneous peak flow of 308,000 gallons per day. ORWRF service and disposal areas are contained within the proposed Orchard Run Development, to be located in the community of Valley Center, San Diego County within portions of section 13 of Township 11 South, Range 2 West, San Bernardino Base Meridian.

3. The RWD contains a conceptual process schematic of the proposed ORWRF. The wastewater treatment scheme at ORWRF is described as consisting of pre-treatment by comminution, secondary treatment by an activated sludge process, tertiary treatment by coagulation, flocculation, and filtration, and disinfection with sodium hypochlorite. Biosolids from the wastewater treatment scheme will be further treated by aerobic digestion and dewatering. ORWRF will also include odor control processes and a stand-by power supply.

4. The RWD contains a conceptual description of features at the proposed ORWRF that will be implemented to ensure that improperly treated wastewater will not be reclaimed. These proposed reliability features include redundant process units, short term storage, multiple blowers, replacement units, and dual tanks.

5. In accordance with section 2200, Title 23 of the California Code of Regulation, the threat to water quality and complexity of the use of the treated wastewater from the ORWRF is determined to be category 2B.

6. The waste discharge requirements contained in this Order, including effluent discharge flow rate and effluent constituent limitations, were determined based on information contained in the RWD.

7. The RWD projects the ORWRF will produce an effluent with the following characteristics:

Projected Effluent Water Quality

Constituent	Units	Projected Recycled Water Quality
Total Coliform	Organisms per 100 mL	< 2.2
Biochemical Oxygen Demand$_5$	mg/L	<10
Total Suspended Solids	mg/L	<10
Turbidity	NTU	<2
Total Dissolved Solids	mg/L	750-950
Chloride	mg/L	140-220
Nitrate as NO_3	mg/L	67.5
Sulfate	mg/L	220-300
Sodium	mg/L	150-240
Percent sodium	%	40-50
MBAS	mg/L	0.2-0.4
Manganese	mg/L	0.05-0.015
Boron	mg/L	0.3-0.6

8. The RWD indicates that VCMWD will supply the recycled water to the proposed Orchard Run Development for irrigation of up to 34.58 acres of open spaces within the development including landscape and park areas in the development and agricultural land in the Moosa Creek floodplain.

9. The RWD states that rates of application of recycled water via irrigation during a normal rainfall year will be a maximum of 4.29 inches/month per acre in July, a minimum of 0.00 inches/month per acre in December, and an annual rate of 34.67 inches/year per acre. The RWD also states that nitrogen from the recycled water will be assimilated by the vegetation in the irrigated areas at an annual rate of up to 100 lbs. of nitrogen per acre.

10. The RWD estimates that the 90 acre-feet per year (AFY) of recycled water generated will be adequate to meet the total annual irrigation demand for the areas identified. During periods when water demand is low, the facility design includes a storage reservoir that can contain up to 20 acre-feet of recycled water for up to 84 days of seasonal storage.

11. This Regional Board, acting in accordance with section 13244 of the California Water Code, adopted the Water Quality Control Plan for the San Diego Basin (9), (hereinafter Basin Plan) on September 8, 1994. The Basin Plan was subsequently approved by the State Water Resources Control Board (SWRCB) on December 13, 1994. Subsequent revisions to the Basin Plan have also been adopted by the

Board and approved by the SWRCB. The Basin Plan contains beneficial uses and water quality objectives.

12. All discharges from the Orchard Run Water Reclamation Facility are located within the Valley Center Hydrologic Subarea (HSA 903.14) of the Lower San Luis Hydrologic Area (HA 903.10) of the San Luis Rey Hydrologic Unit (HU 903.00). The Basin Plan established municipal and domestic supply, agricultural supply, and industrial process supply as existing beneficial uses of ground water in the Lower San Luis HA, east of Interstate Highway 5.

13. The Basin Plan states that waters designated for use as domestic or municipal supply shall not contain concentrations of chemical constituents in excess of the maximum contaminant levels (MCL) specified in the California Code of Regulations, Title 22, Table 64431-A of Section 64431 (Primary MCL, Inorganic Chemicals), Table 64431-B of Section 64431 (Primary MCL, Fluoride), Table 64444-A of Section 64444 (Primary MCL, Organic Chemicals), and Table 64449-A of Section 64449 (Secondary Maximum Contaminant Levels, Consumer Acceptance Limits), incorporated by reference, including future changes to the incorporated provisions as the changes take effect. The Basin Plan lists the following additional ground water quality objectives for the Valley Center HSA:

BASIN PLAN GROUNDWATER WATER QUALITY OBJECTIVES (mg/L or as noted)

(Concentrations not to be exceeded more than 10% of the time during any one year period)

HYDROLOGIC SUBAREAS	TDS	Cl	SO_4	%Na^2	NO_3 as NO_3	Fe	Mn	MBAS	B	ODOR	TURB NTU	COLOR UNITS	F
903.14 Valley Center	1100[1]	300	400	60	10	0.3	0.05	0.5	0.75	none	5	15	1

1 TDS objective for alluvial aquifer; objective for fractured rock aquifer is 800 mg/L.

2 In some cases, Adjusted Sodium Adsorption Ratio (ASAR) may be a better indicator of the potential sodium hazard in irrigation water than percent sodium. The Regional Board may authorize the use of the ASAR instead of percent sodium to indicate the potential sodium hazard.

14. As stated in the Basin Plan, for discharges of recycled water upgradient of municipal water supply reservoirs, this Regional Board specifies numerical effluent limitations for constituents at levels no lower than the quality of the basin's water supply but no higher than the Basin Plan ground water objective or for discharges where the discharger has demonstrated sufficient assimilative capacity exists and groundwater quality objectives will not be exceeded; this Regional Board may specify numerical effluent limitations for constituents based on the discharge quality and assimilative capacity analysis results.

15. A discharge in compliance with this Order will be consistent with the standards,

policies, and regulations established in the Basin Plan for the achievement of water quality objectives.

16. The Orchard Run Development is located immediately upgradient of Turner Reservoir, which provides the VCMWD with an emergency water supply in the event that there is an extended interruption of imported water supplied by the San Diego County Water Authority. The reservoir is currently not used as a source of potable water supply because of its poor water quality from runoff and lack of local surface water treatment facilities.

17. Pursuant to the Basin Plan, this Regional Board requires recycled water projects lacking a fail-safe land outfall to an ocean outfall to have 84 days of storage capacity unless the discharger documents that an exception to this requirement is justified. The proposed project includes a storage reservoir that contains up to 20 acre-feet. The report of waste discharge provides sufficient information to demonstrate that this equates to the acceptable 84 days of seasonal storage.

18. In establishing the requirements contained herein the Regional Board considered factors including, but not limited to, the following:

    a. Beneficial uses to be protected and the water quality objectives reasonably required for that purpose,
    b. Other waste discharges,
    c. The need to prevent nuisance,
    d. Past, present, and probable future beneficial uses of the hydrologic subunits under consideration,
    e. Environmental characteristics of the hydrologic subunits under consideration,
    f. Water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area,
    g. Economic considerations,
    h. The need for additional housing within the region, and
    i. The need to develop and use recycled water.

19. The proposed project will make use of recycled water consistent with the goals of California Water Code, Division 7, Chapter 7, *Water Recycling Law*.

20. 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 requested in writing to be consulted and with the consent of the proposed permitee, 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.

21. 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.

22. The County of San Diego Department of Planning and Land Use (CSDDPLU) certified a final environmental impact report (EIR) for the Orchard Run housing development containing this project on June 17, 1998, in accordance with the California Environmental Quality Act (Public Resources Code section 21000, et seq.). On September 6, 2002, CSDDPLU found the existing EIR for the Orchard Run housing development, with addendum dated July 3, 2002, to be adequate to cover the Major Use Permit for this project, in compliance with the California Enviromental Quality Act. CSDDPLU determined the impacts of this project to surface water quality and qroundwater quality and quantity to be less than significant or less and required no mitigation measures. CSDDPLU implies approval of this project through its issuance of a Major Use Permit.

23. This Regional Board has considered all water resource related environmental factors associated with the proposed discharge of waste from the proposed Orchard Run Water Reclamation Facility.

24. This Regional Board has notified the Valley Center Municipal Water District and all known interested parties of the intent to prescribe master reclamation permit requirements for the proposed discharge.

25. In accordance with the *Memorandum Of Agreement Between The Department Of Health Services And The State Water Resources Control Board On Use Of Reclaimed Water,* this Order incorporates any conditions of approval submitted as part of the State Department of Health Services' recommendations into water reclamation requirements proposed for adoption by this Regional Board.

26. This Regional Board in a public meeting has heard and considered all comments pertaining to the proposed discharge of waste from the Orchard Run Water Reclamation Facility.

IT IS HEREBY ORDERED THAT, the Valley Center Municipal Water District (hereinafter Recycled Water Agency), 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 Orchard Run Water Reclamation Facility (ORWRF) to HSA 903.14:

A. PROHIBITIONS

1. Discharges of wastes except as described in the findings of this Order or 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. Discharges of treated or untreated solid or liquid waste to a navigable water or tributary of a navigable water are prohibited unless as authorized by an NPDES permit issued by this Regional Board.
3. Neither the treatment, storage nor disposal of waste shall create a pollution, contamination or nuisance, as defined by Section 13050 of the California Water Code.
4. The discharge of treated wastewater shall not cause a violation of the prohibitions contained in the Basin Plan, incorporated herein by reference.
5. The discharge of effluent from ORWRF in excess of 77,000 gallons per day (May through November) or 84,000 gallons per day (December through April) within any calendar day is prohibited.

B. DISCHARGE SPECIFICATIONS

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

CONSTITUENT	30-DAY AVERAGE (mg/L)[1]	DAILY MAXIMUM (mg/L)[2]
Biochemical Oxygen Demand (BOD_5 @ 20°C)	30	45
Total Suspended Solids	30	45
pH (within limits shown at all times)	6.5-8.5	

[1] The 30-day average effluent limitation shall apply to the arithmetic mean of the results of all samples collected during any calendar month.

[2] The daily maximum effluent limitation shall apply to the results of a single composite or grab sample.

2. The VCMWD, in the production of recycled water for discharge as specified in this Order, shall comply with provisions of California Code of Regulations, Title 22, Division 4, Chapter 3 (Water Recycling Criteria) established pursuant to California Water Code Section 13521.

3. Effluent used for landscape irrigation purposes shall be treated to the most restricted level in conformance with all applicable provisions of California Code of Regulations, Title 22, Division 4, Chapter 3 (Water Recycling Criteria) for landscaping irrigation [currently section 60304 (a)].

4. The median concentration of total coliform bacteria measured in the disinfected recycled water effluent from the ORWRF shall not exceed a Most Probable Number (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 a MPN of 23 per 100 milliliters in more than one sample in any 30-day period. No sample shall exceed a total coliform bacteria MPN of 240 per 100 milliliters.

5. Turbidity concentration of the recycled water effluent from the ORWRF shall not exceed a daily average value of 2 NTU (nephelometric turbidity units), shall not exceed 5 NTU more than 5% of the time during a 24-hour period, and shall not exceed 10 NTU at any time.

6. Recycled water from the ORWRF shall not contain constituents in excess of the following limitations:

CONSTITUENT	12-MONTH[1] AVERAGE (mg/L)	CONSTITUENT	12-MONTH[1] AVERAGE (mg/L)
Total Dissolved Solids	1100	Barium	1
Nitrate as NO_3	67.5	Beryllium	0.004
Sulfate	400	Cadmium	0.005
Chloride	300	Chromium	0.05
Boron	0.75	Cyanide	0.2
Manganese	0.05	Mercury	0.002
Adj Sodium Adsorption Ratio[2]	6.0	Nickel	0.1
Iron	0.3	Selenium	0.05
Aluminum	1	Thallium	0.002
Antimony	0.006	MBAS	0.5
Arsenic	0.05		

1 The 12-month average effluent limitation shall apply to the arithmetic mean of the results of all samples collected during any 12 consecutive calendar month period.

2 The Regional Board Executive Officer has determined that the use of Adjusted Sodium Adsorption Ratio, as required in table 3.1 of the Basin Plan, is more indicative of the potential sodium hazard than percent sodium.

7. Discharges to a landscape impoundment must be terminated whenever an overflow of the impoundment is imminent.

C. RECYCLED WATER PURVEYANCE REQUIREMENTS

1. Prior to the initiation of the purveyance of recycled water project, the Recycled Water Agency 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 (State DHS) and the County of San Diego Department of Environmental Health (County DEH). Rules and regulations shall, at a minimum, include the requirements that 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, State DHS and County DEH. Inspections shall determine the status of compliance with the Recycled Water Agency's approved rules and regulations for recycled water users.

   c. Submit a report to the State DHS and the County DEH containing the information listed below. The Recycled Water 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) A copy of the long-term agreement between the VCMWD and the user for the use of recycled water on this development.

      (2) 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.

      (3) The average number of persons estimated to be served at each use area on a daily basis.

      (4) 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.

      (5) The person or persons responsible for operation of the recycled water system at each use area.

(6) The specific use to be made of the recycled water at each use area.

(7) The methods to be used by the Recycled Water Agency to assure that the installation and operation of the recycled system will not result in cross connections between the recycled water piping system, the potable water piping system, and other auxiliary non-potable water sources. This shall include a description of pressure, dye or other test methods to be used to test the system.

(8) Plans and specifications shall include the following and shall be submitted to the State DHS and the County DEH for approval:

(a) Proposed piping system to be used,

(b) Pipe locations of the recycled, potable and auxiliary non-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.

d. Perform an alarm simulation shut down test after completion of the construction of ORWRF, in the presence of a staff member from the Regional Board and a sanitary engineer from the State DHS, to ensure that ORWRF is properly operating.

e. Verify the modal contact time of the chlorination chamber, as defined under Title 22, Division 4, Chapter 3, Section 60301.600, through a tracer study to ensure that the effluent meets the requirements of Title 22. The results of this tracer study shall be submitted to the State DHS for review and approval.

2. Prior to initiation of the purveyance of recycled water and prior to providing recycled water to a new use site, the Recycled Water Agency shall do the following:

a. Submit for review and approval a report that either certifies (by the agency) 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 DHS and the County DEH. A certification report

shall document that all criteria described in *Recycled Water Purveyance Requirements C.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 C.1c,* not met through submittal of the master plan.

b. Arrange for a complete cross-connection shut down test performed by a certified cross-connection specialist of the County DEH, in the presence of an adequately trained and qualified disignated use site supervisor. This cross-connection shut down test shall be conducted to ensure that the use site is adequately supplied with recycled water and supervised by a qualified staff.

c. Submit for review and approval documentation confirming the information submitted as part of Monitoring and Reporting Program No. R9-2002-0336, Recycled Water Users Summary Report F.2 to the Regional Board.

3. The Recycled Water 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 C.1b* of this Order,

c. Notify the State DHS and the County DEH of any incidence of recycled water backflow into the potable water system as soon as possible, but in no case later than 24 hours of finding the incident, and

d. Maintain a current list of all on-site recycled water supervisors.

D. FACILITY DESIGN AND OPERATION SPECIFICATIONS

1. PROPER OPERATION

The Recycled Water Agency 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 Recycled Water 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.

2. CERTIFICATION REPORT

The waste water treatment and disposal facilities shall be completely constructed and operable prior to the initiation of the discharge and the complete facilities shall have adequate capacity for the full design flow of 0.077 million gallons per day (MGD) average dry-weather daily flow, 0.0847 million gallons per day (MGD) average wet-weather daily flow, and 0.308 MGD peak instantaneous flow. A report from the design engineer certifying the adequacy of each component of the treatment, storage, and disposal facilities shall be submitted by the discharger prior to commencement of the discharge. The certification report shall contain a requirement-by-requirement analysis based on acceptable engineering practices, of how the process and physical designs of the facilities will ensure compliance with the master reclamation permit. The design engineer shall affix their signature and engineering license number to the certification report and should submit it prior to construction of the facilities. 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 Regional Board Executive Officer has been notified that the Title 22 report and the rules and regulations for recycled water reuse are approved by the State DHS and County DEH,

c. The Regional Board Executive Officer has been notified of the completion of facilities by the Recycled Water Agency,

d. An inspection of the facilities has been made by staff of the Regional Board, and

e. The Regional Board Executive Officer notifies the Recycled Water Agency by letter that recycled water purveyance can be initiated.

3. ENGINEERING REPORT

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

4. WET WEATHER STORAGE

The discharger shall provide adequate storage facilities to contain recycled

water during and after periods of rainfall when disposal by irrigation cannot be successfully practiced and to prevent the discharge of treated or untreated recycled water to any surface water body. A minimum of 84 days storage shall be maintained at all times.

5. COAGULATION ALTERNATIVE

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

6. DISINFECTION PROCESS

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. OPERATION MANUAL

A copy of the facility operations manual shall be maintained at the Recycled Water Agency's facility and shall be available to operation personnel and Regional Board staff at all times. The following portions of the operations manual shall be posted at the treatment plant as a quick reference for treatment plant operators:

a. Alarm set points for secondary turbidity, tertiary turbidity and chlorine residual.

b. Levels at which flow will be diverted for secondary turbidity, tertiary turbidity and chlorine residual.

c. When to divert flow for high daily and weekly median total coliform.

d. When the authorities (State DHS, County DEH, Regional Board) will be notified of a diversion.

e. Names and numbers of those authorities to be notified in case of a diversion.

f. Frequency of calibration for turbidimeters and chlorine residual analyzers.

8. OPERATORS' CERTIFICATION

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

9. FLOOD PROTECTION

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

10. RUNOFF PROTECTION

All wastewater and recycled water storage facilities shall be protected against erosion, overland runoff, and other impacts resulting from a 100-year, 24-hour frequency storm.

11. MONITORING AND REPORTING

The Recycled Water Agency shall comply with the attached Monitoring and Reporting Program No. R9-2002-0336 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. R9-2002-0336.

E. BIOSOLIDS SPECIFICATIONS

1. 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.

2. All collected screenings, sludges, and other solids removed from liquid wastes 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.

3. 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.

4. 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.

5. 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.

6. 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.

F. STANDARD PROVISIONS

1. ENFORCEMENT

The Regional Board may initiate enforcement action against the recycled water agency, which may result in the termination of the recycled water supply, if any person uses, transports, or stores such water in a manner which creates, or threatens to create conditions of pollution, contamination,

or nuisance, as defined in Water Code section 13050.

2. DUTY TO COMPLY

The Recycled Water Agency must comply with all conditions of this Order. Any noncompliance with this Order constitutes a violation of the California Water Code and is grounds for (a) enforcement action; (b) termination, revocation and reissuance, or modification of this Order; or (c) denial of a report of waste discharge in application for new or revised master reclamation permit requirements.

3. ENTRY AND INSPECTION

The Recycled Water Agency 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 Recycled Water 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, and

d. Sample or monitor, at reasonable times for the purposes of assuring compliance with this Order or as otherwise authorized by the California Water Code, any substances or parameters at any location.

4. CIVIL MONETARY REMEDIES

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

5. PENALTIES FOR INVESTIGATION, MONITORING OR INSPECTION VIOLATIONS

The California Water Code provides that any person failing or refusing to furnish technical or monitoring program reports, as required under this Order, or falsifying any information provided in the monitoring reports is guilty of a misdemeanor and is subject to a civil liability in accordance with California Water Code Section 13268.

6. ENDANGERMENT OF HEALTH AND ENVIRONMENT

The Recycled Water Agency shall report any noncompliance that 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 undisinfected effluent or untreated wastewater resulting from sewer line breaks, obstruction, surcharge, or any other circumstances.

c. Any treatment plant upset which causes the effluent limitations of this Order to be exceeded including, but not limited to, the following:

(1) Failure of chlorination equipment

(2) Effluent total coliform bacteria greater than 240 MPN/100 mL.

(3) Turbidity greater than 10 NTU if distributed to any recycled water user.

(4) CT less than 450 mg-min/L if distributed to any recycled water user.

d. Any known direct cross-connection between recycled and potable water systems.

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

7. PLANT OVERFLOW EVENTS

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

discharge of treated or untreated wastewater and/or NPDES permit which results from a pump station failure, line break, obstruction, surcharge, or any other operational dysfunction. This reporting requirement applies to all overflow events other than those events subject to regulation under this Regional Board's Order No. 96-04, *General Waste Discharge Requirements Prohibiting Sanitary Sewer Overflows by Sewage Collection Agencies*. Overflows of the kind identified under this provision shall be reported to the Regional Board with the monthly monitoring report for the calendar month in which the overflow occurs.

8. 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 this regional board in accordance with reporting requirements in standard provision F.6.

9. PRIOR NOTICE OF BYPASS

If a need for a discharge bypass is known in advance, the Recycled Water Agency shall submit prior notice (stating, at a minimum, the purpose, anticipated dates, duration, level of treatment, and volume of bypass) and, if at all possible, such notice shall be submitted at least 10 days prior to the date of the bypass. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility to other than a sewer system.

10. CORRECTIVE ACTION

The Recycled Water Agency shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this Order, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the noncompliance.

11. TREATMENT FAILURE

In an enforcement action, it shall not be a defense for the Recycled Water Agency 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 Recycled Water Agency shall, to the extent necessary to maintain compliance with this Order, control production or all discharges, or both, until the facility is restored or an alternative method of treatment is provided. This provision applies for example, when the primary source of power of the treatment facility is failed, reduced, or lost.

12. HAZARDOUS RELEASES

Except for a discharge which is in compliance with these master reclamation permit requirements, any person who, without regard to intent or negligence, causes or permits any hazardous substance or sewage to be discharged in or on any waters of the State, shall as soon as (a) that person has knowledge of the discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the Director of Environmental Health Services, County of San Diego in accordance with California Health and Safety Code section 5411.5 and the Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State toxic disaster contingency plan adopted pursuant to Article 3.7 (commencing with section 8574.7) of Chapter 7 of Division 1 of Title 2 of the Government Code, and immediately notify the State Board or the appropriate Regional Board of the discharge. This provision does not require reporting of any discharge of less than a reportable quantity as provided for under subdivisions (f) and (g) of Section 13271 of the Water Code unless the Recycled Water Agency is in violation of a prohibition in the applicable Water Quality Control Plan.

13. PETROLEUM RELEASES

Except for a discharge which is in compliance with these master reclamation permit requirements, any person who without regard to intent or negligence, causes or permits any oil or petroleum product to be discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, shall, as soon as (a) such person has knowledge of the discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State oil spill contingency plan adopted pursuant to Article 3.5 (commencing with section 8574.1) of Chapter 7 of Division 1 of Title 2 of the Government Code. This requirement does not require reporting of any discharge of less than 42 gallons unless the discharge is also required to be reported pursuant to section 311 of the Clean Water Act or the discharge is in violation of a prohibition in the applicable Water Quality Control Plan.

14. PERMIT REPOSITORY

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

15. RETENTION OF RECORDS

The Recycled Water Agency 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 Executive Officer.

16. GENERAL REPORTING REQUIREMENT

The Recycled Water Agency shall furnish to the Executive Officer of 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 Executive Officer, upon request, copies of records required to be kept by this Order.

17. PERMIT REVISION

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

a. Violation of any terms or conditions of this Order.

b. Obtaining this Order by misrepresentation or failure to disclose fully all relevant facts.

c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

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

18. CHANGE IN DISCHARGE

The Recycled Water Agency 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.

19. CHANGE IN OWNERSHIP

This Order is not transferrable to any person except after notice to the Executive Officer. The Recycled Water Agency 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.

20. 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.

21. REPORT DECLARATION

All applications, reports, or information submitted to the Executive Officer 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."

22. 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:

POTW Compliance Unit
California Regional Water Quality Control Board
San Diego Region
9174 Sky Park Court, Suite 100
San Diego, California 92123

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 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 November 13, 2002.

JOHN H. ROBERTUS
Executive Officer

ATTACHMENT NO.1

TO

ORDER NO.R9-2002-0336

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 (State DHS) *Guidelines For Use of Recycled Water, Guidelines for Use of Recycled Water for Construction Purposes;*
- The County of San Diego Department of Environmental Health (County DEH) *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 the State DHS.

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

1. The use of recycled water shall not cause pollution, contamination, or nuisance, as defined by section 13050 of the California Water Code.

2. The Recycled Water Agency, the Regional Board, the State DHS and the County DEH, or an authorized representative of these parties, upon presentation of proper credentials, shall have the right to enter upon the recycled water use site during reasonable hours, to verify that the user is complying with the 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. Additional guidance regarding recycled water supervisor responsibilities and instruction requirements is provided in Attachments 17 and 18 of the *Recycled Water Plan Check and Inspection Manual* developed by the County of San Diego Department of Environmental Health which are incorporated herein by reference.

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, including but not limited to the termination of the reclaimed water supply, who:

   a. 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.

   b. Uses, transports, or stores such water in violation of the rules and regulations governing the design, construction and use of recycled water distribution and disposal systems issued by the recycled water agency in accordance with this attachment; 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 minimize public contact with, and to prevent direct human consumption of reclaimed water.

16. All windblown spray and surface runoff of reclaimed water applied for irrigation onto property not owned or controlled by the discharger or reclaimed water user shall be prevented by implementation of BMP's.

17. Irrigation with reclaimed water shall be during periods of minimal human use of the service area. Consideration shall be given to allow an adequate dry-out time before the irrigated area will be used by the public.

18. 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.

19. 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.

20. 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.

21. 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 and picture in a size no less than 4 inches high by 8 inches wide: "RECYCLED WATER - DO NOT DRINK". See Attachment No. 2 for the acceptable symbol. The sign(s) shall be of a size easily readable by the public. The prescribed wording should also be translated into Spanish and other appropriate languages and included in the required signs.

22. No physical connection shall be made or allowed to exist between any recycled water system and any separate system conveying potable water or auxiliary water source system.

23. The recycled water piping system shall not include any hose bibs. Quick couplers that are different from that used on the potable water system or auxiliary water source system may be used.

24. 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.

25. 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.

26. All facilities shall be identified and labeled according to the type of water in each system.

27. 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.

28. Reuse site shut down tests and inspections shall be monitored by the County of San Diego DEH or the State DHS.

29. 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.

30. Any backflow prevention device installed to protect the public water system shall be inspected and maintained in accordance with section 7605 of Title 17.

31. The amount of nitrogen from commercial fertilizers applied to irrigation use sites shall be managed to take into account the nitrogen content of the recycled water in order to ensure sufficient nitrogen uptake by the vegetation and prevent leaching of excess nitrates and nitrogen compounds into the soil beyond the root zone.

ATTACHMENT NO. 2

TO

ORDER NO. R9-2002-0336

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

MONITORING AND REPORTING PROGRAM NO. R9-2002-0336
FOR
VALLEY CENTER MUNICIPAL WATER DISTRICT
ORCHARD RUN WATER RECLAMATION PLANT
SAN DIEGO COUNTY

A. MONITORING PROVISIONS

1. Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring points specified in this Monitoring and Reporting Program (M&RP) 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 Executive Officer.

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 +10 percent from true discharge rates throughout the range of expected discharge volumes.

3. Monitoring must be conducted according to United States Environmental Protection Agency (USEPA) 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 M&RP.

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 Executive Officer.

5. Monitoring results must be reported on discharge monitoring report forms approved by the Executive Officer.

6. If Valley Center Municipal Water District (discharger) monitors any pollutants more frequently than required by this M&RP, using test procedures approved under 40 CFR, Part 136, or as specified in this M&RP, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the discharger's monitoring report. The increased frequency of

monitoring shall also be reported.

7. The discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this M&RP, and records of all data used to complete the application for this M&RP. 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 Executive Officer.

8. Records of monitoring information shall include the following:

   a. The date, exact place, and time of sampling or measurements,
   b. The individual(s) who performed the sampling or measurements,
   c. The date(s) analyses were performed,
   d. The individual(s) who performed the analyses,
   e. The analytical techniques or method used, and
   f. The results of such analyses.

9. All results from effluent sample analysis or measurement required to be reported in the discharger's monitoring report by this M&RP shall be accompanied by the following information:

   a. The date, time, and exact place of sampling or measurement.
   b. The type of sample (i.e., grab or composite).
   c. The analytical technique or method used and the corresponding minimum detection limits and minimum quantitation limits.

10. 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.

11. The discharger shall report all instances of noncompliance not reported under Provision F.6 of Order No. R9-2002-0336 at the time monitoring reports are submitted. The reports shall contain the information described in Provision F.6 of Order No. R9-2002-0336.

12. The monitoring reports shall be signed by an authorized person as required by Provision F.21 of Order No. R9-2002-0336.

13. A composite sample is defined as a combination of at least eight sample aliquots of at least 100 milliliters, collected at periodic intervals during the operating hours of a facility over a 24-hour period. For volatile pollutants,

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. 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.

15. Sampling and analysis shall, at a minimum, be conducted in accordance with Article 6 of California Code of Regulations, Title 22, Division 4, Chapter 3 (Reclamation Criteria).

B. EFFLUENT MONITORING

1. Samples of the effluent discharged from the Orchard Run Water Reclamation Plant (ORWRP) shall be collected at a point at or nearest to the effluent pump station, downstream of the disinfection process and prior to any dilution.

2. The discharger is responsible for monitoring and reporting in accordance with the following criteria:

CONSTITUENT	UNIT	TYPE OF SAMPLE	SAMPLING FREQUENCY[2, 3]	REPORTING FREQUENCY
Flowrate[1]	Gallons/Day	Continuous	Continuous	Monthly
Turbidity	NTU	Continuous	*	Monthly
CT[4]	mg-min/L	Calculated	**	Monthly
Total Chlorine Residual[4]	mg/L	Continuous	***	Monthly
Total Coliform	MPN/100ml	Grab	****	Monthly
Biochemical Oxygen Demand (BOD_5 @ 20°C)	mg/L	Composite	Monthly	Monthly
Total Suspended Solids	mg/L	Composite	Monthly	Monthly
Volatile Suspended Solids	mg/L	Composite	Monthly	Monthly
pH	Unit	Grab	Monthly	Monthly
Total Dissolved Solids	mg/L	Composite	Annually	Annually
Chloride	mg/L	Composite	Annually	Annually
Nitrate as NO_3	mg/L	Composite	Annually	Annually
Sulfate	mg/L	Composite	Annually	Annually
Boron	mg/L	Composite	Annually	Annually

CONSTITUENT	UNIT	TYPE OF SAMPLE	SAMPLING FREQUENCY	REPORTING FREQUENCY
Percent Sodium	%	Composite	Annually	Annually
Adjusted Sodium Adsorption Ratio[5]	---	Composite	Annually	Annually
Iron	mg/L	Composite	Annually	Annually
Manganese	mg/L	Composite	Annually	Annually
Methylene Blue Active Substances	mg/L	Composite	Annually	Annually
Total Organic Carbon	mg/L	Composite	Annually	Annually
Aluminum	mg/L	Composite	Annually	Annually
Arsenic	mg/L	Composite	Annually	Annually
Antimony	mg/L	Composite	Annually	Annually
Barium	mg/L	Composite	Annually	Annually
Beryllium	mg/L	Composite	Annually	Annually
Cadmium	mg/L	Composite	Annually	Annually
Chromium	mg/L	Composite	Annually	Annually
Copper	mg/L	Composite	Annually	Annually
Cyanide	mg/L	Composite	Annually	Annually
Fluoride	mg/L	Composite	Annually	Annually
Mercury	mg/L	Composite	Annually	Annually
Nickel	mg/L	Composite	Annually	Annually
Selenium	mg/L	Composite	Annually	Annually
Thallium	mg/L	Composite	Annually	Annually
Benzene	mg/L	Grab	Annually[6]	Annually[6]
Carbon Tetrachloride	mg/L	Grab	Annually[6]	Annually[6]
1,2-Dichlorobenzene	mg/L	Grab	Annually[6]	Annually[6]
1,4-Dichlorobenzene	mg/L	Grab	Annually[6]	Annually[6]
1,1-Dichloroethane	mg/L	Grab	Annually[6]	Annually[6]
1,2-Dichloroethane	mg/L	Grab	Annually[6]	Annually[6]
1,1-Dichloroethylne	mg/L	Grab	Annually[6]	Annually[6]
cis-1,2-Dichloroethylene	mg/L	Grab	Annually[6]	Annually[6]
trans-1,2-Dichloroethylene	mg/L	Grab	Annually[6]	Annually[6]
Dichloromethane	mg/L	Grab	Annually[6]	Annually[6]
1,2-Dichloropropane	mg/L	Grab	Annually[6]	Annually[6]
1,3-Dichloropropene	mg/L	Grab	Annually[6]	Annually[6]
Ethylbenzene	mg/L	Grab	Annually[6]	Annually[6]
Monochlorobenzene	mg/L	Grab	Annually[6]	Annually[6]

CONSTITUENT	UNIT	TYPE OF SAMPLE	SAMPLING FREQUENCY	REPORTING FREQUENCY
Styrene	mg/L	Grab	Annually[6]	Annually[6]
1,1,2,2-Tetrachloroethane	mg/L	Grab	Annually[6]	Annually[6]
Tetrachloroethylene	mg/L	Grab	Annually[6]	Annually[6]
Toluene	mg/L	Grab	Annually[6]	Annually[6]
1,2,4-Trichlorobenzene	mg/L	Grab	Annually[6]	Annually[6]
1,1,1-Trichloroethane	mg/L	Grab	Annually[6]	Annually[6]
1,1,2-Trichloroethane	mg/L	Grab	Annually[6]	Annually[6]
Trichloroethylene	mg/L	Grab	Annually[6]	Annually[6]
Trichlorofluoromethane	mg/L	Grab	Annually[6]	Annually[6]
1,1,2-Trichloro-1,2,2-Trifluoroethane	mg/L	Grab	Annually[6]	Annually[6]
Vinyl Chloride	mg/L	Grab	Annually[6]	Annually[6]
Xylenes	mg/L	Grab	Annually[6]	Annually[6]
Alachlor	mg/L	Grab	Annually[6]	Annually[6]
Atrazine	mg/L	Grab	Annually[6]	Annually[6]
Bentazon	mg/L	Grab	Annually[6]	Annually[6]
Benzo(a)pyrene	mg/L	Grab	Annually[6]	Annually[6]
Carbofuran	mg/L	Grab	Annually[6]	Annually[6]
Chlordane	mg/L	Grab	Annually[6]	Annually[6]
2,4-D	mg/L	Grab	Annually[6]	Annually[6]
Dalapon	mg/L	Grab	Annually[6]	Annually[6]
1,2-Dibromon-3-chloropropane	mg/L	Grab	Annually[6]	Annually[6]
Di(2-ethylhexyl)adipate	mg/L	Grab	Annually[6]	Annually[6]
Di(2-ethylhexl)phthalate	mg/L	Grab	Annually[6]	Annually[6]
Dinoseb	mg/L	Grab	Annually[6]	Annually[6]
Diquat	mg/L	Grab	Annually[6]	Annually[6]
Endothall	mg/L	Grab	Annually[6]	Annually[6]
Endrin	mg/L	Grab	Annually[6]	Annually[6]
Ethylene Dibromide	mg/L	Grab	Annually[6]	Annually[6]
Glyphosate	mg/L	Grab	Annually[6]	Annually[6]
Heptachlor	mg/L	Grab	Annually[6]	Annually[6]
Heptachlor Epoxide	mg/L	Grab	Annually[6]	Annually[6]
Hexachlorobenzene	mg/L	Grab	Annually[6]	Annually[6]
Hexachlorocyclopentadiene	mg/L	Grab	Annually[6]	Annually[6]
Lindane	mg/L	Grab	Annually[6]	Annually[6]

CONSTITUENT	UNIT	TYPE OF SAMPLE	SAMPLING FREQUENCY	REPORTING FREQUENCY
Methoxychlor	mg/L	Grab	Annually[6]	Annually[6]
Molinate	mg/L	Grab	Annually[6]	Annually[6]
Oxamyl	mg/L	Grab	Annually[6]	Annually[6]
Pentachlorophenol	mg/L	Grab	Annually[6]	Annually[6]
Picloram	mg/L	Grab	Annually[6]	Annually[6]
Polychlorinated Biphenyls	mg/L	Grab	Annually[6]	Annually[6]
Simazine	mg/L	Grab	Annually[6]	Annually[6]
Thiobencarb	mg/L	Grab	Annually[6]	Annually[6]
Toxaphene	mg/L	Grab	Annually[6]	Annually[6]
2,3,7,8-TCDD (Dioxin)	mg/L	Grab	Annually[6]	Annually[6]
2,3,5-TP Silvex	mg/L	Grab	Annually[6]	Annually[6]

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

1 Report both the daily average and daily maximum.

2 Weekly is defined as a calendar week (Sunday through Saturday). Monthly is defined as a calendar month. Quarterly is defined as three consecutive calendar months with the first quarter beginning at the first of the calendar year. Annual is defined as a calendar year.

3 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 Discharge Specification B.1, B.4, B.5, and B.6 of Order No. R9-2002-0336. The increased frequency of 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.

4 Required if chlorine disinfection process is used. Disinfection using UV Irradiation will require additional monitoring requirements not currently specified in Order No. R9-2002-0336.

5 The adjusted sodium adsorption ratio (Adj. SAR) is calculated as follows:

$$\text{Adj. SAR} = \frac{Na}{\sqrt{(Ca_x + Mg)/2}}$$

where Na, Ca_x, and Mg are in milliequivalent per liter (meq/L)

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

6 Analysis for these constituents shall be conducted annually. After the first three years of discharge, analysis for these constituents shall be conducted every third year provided that

the results from the first three years do not indicate the presence of these constituents in significant concentrations. The results shall be submitted as part of the annual report for the year in which the analyses were conducted.

* Effluent turbidity analyses shall be conducted continuously using a continuous monitoring and recording turbidimeter. Compliance with the daily average operating filter effluent turbidity limit of 2 NTU shall be determined by averaging the recorded turbidity levels at a minimum of four-hour intervals over a 24-hour period. Compliance with the turbidity standard of not exceeding 5 NTU more than 5 percent of the time over a 24-hour period shall be determined using the levels of recorded turbidity taken at intervals of no more than 1.2-hours over a 24-hour period. Should the continuous turbidity meter and/or recorder fail, grab sampling at a minimum frequency of 1.2 hours may be substituted for a period of up to 24 hours. The discharger shall report monthly the results of four-hour turbidity readings, average effluent turbidity (24-hours), 95 percentile effluent turbidity (24-hours), and daily maximum turbidity readings. Continuous turbidity monitoring must also be provided prior to filtration to ensure adequate process control, and automatically actuate coagulant feed when the turbidity of the secondary treated effluent is greater than 10 NTU.

** Calculated CT (chlorine concentration multiplied by modal contact time) values shall be determined and recorded continuously. Continuously shall mean consecutively and at intervals not greater than 15 minutes. The daily minimum CT value shall be reported monthly. The discharger shall report monthly the date(s), time(s), duration, instantaneous CT value(s), instantaneous flow rates and instantaneous total chlorine residuals when the CT value(s) falls below 450 mg-min/L, and/or the modal contact time falls below 90 minutes.

*** Chlorine concentrations shall be recorded by a continuous recording meter. Minimum daily chlorine residual shall be reported monthly.

**** Samples for total coliform bacteria shall be collected at least daily and at a time when wastewater characteristics are most demanding on the treatment facilities and disinfection procedures. Results of daily total coliform bacteria monitoring, running 7-day median determination, and maximum daily coliform reading in each of the previous 12 months shall be reported monthly.

3. The discharger shall review the monitoring results for compliance with Order No. R9-2002-0336 and submit a statement of compliance as part of the Monitoring and Reporting Program No. R9-2002-0336. The statement of compliance shall identify and report all effluent limitation violations of Discharge Specification B.1, B.4, B.5, and B.6 of Order No. R9-2002-0336.

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 exceeds 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. SEWAGE SOLIDS AND BIOSOLIDS

A record of the type, quantity, and manner of disposal and/or reuse of solids removed in the course of sewage treatment shall be maintained at the ORWRP and be made available to Regional Board staff upon request.
A biosolids certification, certifying that the use and disposal of biosolids complies with existing Federal and State laws and regulations, including permitting requirements and technical standards included in 40 CFR 503 shall be submitted annually.

E. STORAGE PONDS

The Recycled Water Agency shall record storage pond monthly inflow and outflow, the volume of water in storage at the end of each month, the monthly volume of ground, municipal, and recycled water used, and total water consumption.

F. RECYCLED WATER USERS SUMMARY REPORT

1. The Recycled Water Agency shall submit a quarterly recycled water users summary report containing the following information:

    a. Total volume of recycled water supplied to each recycled water user for each month of the reporting period,
    b. Total number of recycled water use sites,
    c. If using recycled water for irrigation, number of acres irrigated at each use site, type of vegetation irrigated, the dates of vegetation removal (e.g., mowing, harvesting, etc.), and the amount of available nitrogen (in pounds) applied from fertilizers per acre,
    d. Address of the recycled water use sites, and
    e. Basin Plan name and number of hydrologic subarea underlying the recycled water use site.

2. The Recycled Water Agency shall submit an annual recycled water users compliance report containing the following information:

    a. Recycled water use site summary report.

        (1) Name of the reclaimed water reuse site
        (2) Owner of the reclaimed water use facility
        (3) Address of the reuse site
        (4) Name of the reclaimed water user supervisor
        (5) Phone number of the on-site water user supervisor
        (6) Mailing address of the recycled water use supervisor, if

different from site address

(7) Volume of reclaimed water delivered to the reuse site on a monthly basis

b. Recycled water user site inspections.

Number of reclaimed water reuse site inspections conducted by discharger/producer staff and identification of sites inspected for the year.

c. Recycled water user violations of the Recycled Water Agency's rules and regulations.

The Recycled Water Agency shall identify all recycled water users known to be in violation of the Recycled Water Agency's rules and regulations for recycled water users. The report shall include a description of the noncompliance and its cause, including the period of noncompliance, and if the noncompliance has not been corrected; the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

G. REPORT SCHEDULE

Monitoring reports shall be submitted to the Executive Officer 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 1st day of the second month following the month of sampling
Quarterly	January - March April - June July - September October - December	May 1st August 1st, November 1st February 1st
Annually	January-December	February 1st

Monitoring reports shall be submitted to:

ATTN: POTW Compliance Unit
California Regional Water Quality Control Board
San Diego Region
9174 Sky Park Court, Suite 100
San Diego, CA 92123

Ordered by:

JOHN H. ROBERTUS
Executive Officer
November 13, 2002