

**STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION**

ORDER NO. R4-2004-0032

**WASTE DISCHARGE REQUIREMENTS
FOR
VENTURA COUNTY WATERWORKS DISTRICT NO. 16
VENTURA REGIONAL SANITATION DISTRICT
(PIRU WASTEWATER TREATMENT PLANT)
(File No. 71-035)**

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) finds:

BACKGROUND

1. Ventura County Waterworks District No. 16 (VCWWD16) owns a wastewater treatment plant commonly known as Piru Wastewater Treatment Plant (Plant) located at 2815 East Telegraph Road, in an unincorporated area of Ventura County, California (Figure 1). The Plant is operated and maintained by the Ventura Regional Sanitation District (VRSD) under contract with VCWWD16. The VCWWD16 and VRSD are both subject to this Order and are collectively hereinafter identified as the Discharger. The Plant was originally constructed in 1974, and serves the community of Piru, which has a population of approximately 2,200.
2. Domestic and commercial (from fruit washing) wastewater produced from the community of Piru is treated at the Plant. The final effluent is discharged to the groundwater through two percolation ponds under requirements contained in Waste Discharge Requirements (WDRs) Order No. 99-092, adopted by the Regional Board on September 16, 1999.

PURPOSE OF ORDER

3. In August 2001, the Discharger found that flows at the Plant were exceeding the design capacity of 200,000 gpd. The Discharger immediately initiated an engineering study to identify corrective measures. On June 14, 2002, the Discharger informed Regional Board staff that as an interim measure the discharge capacity of the Plant would be increased from 200,000 gpd average flow to 260,000 gpd average flow. On August 15, 2003, the Discharger filed an updated Report of Waste Discharge (RoWD) for revision of its WDRs based on the proposed interim measures.
4. Following a review of the updated RoWD, and inspections of the site, the Regional Board is updating Discharger's WDRs to reflect current wastewater treatment processes, and to include additional findings, effluent limitations and prohibitions.

FACILITY AND TREATMENT PROCESS DESCRIPTION

5. The Plant currently consists of a secondary extended aeration wastewater treatment plant, which includes an activated sludge tank, a digester, a clarifier, and two 10,000-gallon digester decant flow equalization tanks. The Plant was originally designed and built for a capacity of 200,000 gpd in 1974. In August 2003, the Plant was upgraded to 260,000 gpd. The upgrading included the addition of two 10,000-gallon digester decant flow equalization tanks, a blower, air diffusers, two influent pumps, an upgraded effluent pump, and an influent control system. In addition, a sludge drying system (three waste sludge-drying beds with engineered clay-liners) was reconstructed. Treated effluent from the Plant is currently discharged to two percolation ponds located approximately 3937 feet southwest from the Plant. These ponds are approximately 492 feet away from the Santa Clara River.
6. Waste sludge is treated onsite by aerobic digestion, and then moved to the clay-lined sludge drying system. Dried sludge is hauled offsite and disposed at a legal disposal facility.
7. The Plant and percolation ponds are located in Section 35, Township 4N, Range 19W, San Bernardino Base & Meridian (Latitude is 34 °23' 30" , Longitude is 118 °50' 00").
8. Two groundwater monitoring wells, MW-1 (upgradient) and MW-2 (downgradient), are located by the percolation ponds. From September 26, 2000 to March 18, 2003 the groundwater depth below the percolation ponds ranged from 20.95 feet to 43.79 feet. Seasonal fluctuations of groundwater levels beneath the site may occur from varying amounts of rainfall.
9. There are no drinking water supply wells within one mile of the property. Potable water is provided by Warring Water Company.
10. The Discharger plans to expand the existing Plant to provide nitrification-denitrification capabilities and increase the average discharge from 260,000 gpd to 500,000 gpd. The Discharger anticipates starting the detailed engineering design for the 500,000 gpd expansion in June 2005 due to the need to prepare new environmental documents and secure funding for the project.

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APPLICABLE LAWS, PLANS, POLICIES AND REGULATIONS

11. On June 13, 1994, the Regional Board adopted a revised *Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (Basin Plan) which was amended on January 27, 1997 by Regional Board Resolution No. 97-02. The Basin Plan (i) designates beneficial uses for surface waters and groundwaters, (ii) sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the state antidegradation policy (*Statement of Policy with Respect to Maintaining High Quality Waters in California*, State Water Resources Control Board [State Board] Resolution No. 68-16, October 28, 1968), and

(iii) describes implementation programs to protect all waters in the Region. In addition, the Basin Plan incorporates by reference applicable State and Regional Board plans and policies and other pertinent water quality policies and regulations. The Regional Board prepared the 1994 update of the Basin Plan to be consistent with previously adopted State and Regional Board plans and policies. This Order implements the plans, policies, and provisions of the Basin Plan.

12. The Plant is located west of Piru Creek in the Piru Creek Hydrologic area and overlies the Ventura Central Groundwater Basin. The Basin Plan designates beneficial uses and water quality objectives for the Piru Creek Hydrologic Area and Ventura Central Groundwater Basin waterbody as following:

Groundwater (Lower Area West of Piru Creek):

Existing: Municipal and Domestic Supply, Industrial Service Supply, Industrial Process Supply, and Agricultural Supply.

13. The Plant is located within the Santa Clara watershed. On August 7, 2003, the Regional Board adopted a Total Maximum Daily Load (TMDL) for nitrogen in the Santa Clara watershed. The TMDL will now be reviewed by the State Water Resources Control Board and the U.S. Environmental Protection Agency (USEPA). The TMDL includes up to eight years of study and when it is completed, nitrogen-loading rates will be assigned to dischargers. The Discharger shall comply with waste load allocations developed and approved pursuant to the process for the designation of the nitrogen TMDL for the area. The Regional Board may subsequently require that the Discharger meet nitrogen discharge limits stricter than those imposed in this Order.

COMPLIANCE SCHEDULE AND INTERIM LIMITATIONS

14. The Plant provides secondary treatment for wastewater prior to discharge to the percolation ponds. Section 301(b)(1)(B) of the Federal Clean Water Act requires publicly owned treatment works (POTWs) to meet effluent limitations based upon secondary treatment. These effluent limits are established in the Code of Federal Regulations, 40 CFR 125.3, which also requires secondary treatment as a technology-based standard for POTWs. The minimum effluent levels for treatment for POTWs as established in Part 133.102 of 40 CFR are:

<u>Constituent</u>	<u>Units*</u>	<u>Monthly Average</u>	<u>7-Day Average</u>
BOD ₅	mg/L	30	45
Total suspended solids (TSS)	mg/L	30	45

* mg/L: milligrams per liter.

Order No. 99-092 requires the Discharger to meet the minimum effluent levels at groundwater, not at the wastewater treatment system end of pipe. The existing Plant can

not produce an effluent similar in quality to that produced by secondary treatment processes as required by the USEPA for POTWs. However, the Regional Board is now requiring the Discharger to meet the effluent levels prior to disposal to the percolation ponds.

15. Order No. 99-092 states that domestic water supplied to the Piru area from 1989 to 1994 had high levels of chloride that caused exceedances of the maximum effluent limit of 100 mg/L for chloride specified in Order No. 89-044. Consequently, Order No. 99-092 was adopted with groundwater established as the compliance point for the limits. Order No. 99-092 also included the provision that exceedances of the mineral limits including the chloride limit caused by the water supply would not constitute a violation when supported by water supply data.
16. The Discharger has reported the analytical results of the domestic water supplied to the Piru area. Regional Board staff found that the levels of minerals in the supplied water would not be expected to cause violations for the current water quality objectives for the receiving water quality. Consequently, Regional Board staff have eliminated the groundwater compliance point for the limits and are now requiring the Discharger to meet the water quality objectives for minerals prior to disposal to the percolation ponds. However, this Order maintains the provision that an exceedance of the effluent limit for chloride does not constitute a violation if the Discharger provides supporting documentation that it is caused by the domestic water supply. This Order also prohibits the discharge of water softener regeneration brines or industrial wastewater subject to the Prohibited Discharge Standard listed in 40 CFR 403.5.
17. The Discharger may not be able to achieve immediate compliance with BOD, TSS, and total nitrogen in Section B.1. of this Order. In addition, there are specific actions that must be completed by the Discharger in order for the wastewater treatment system to meet all requirements set forth in this Order. Therefore, based on the last three years of monitoring data, this Order includes interim effluent limitations that will allow the Discharger to complete all needed upgrades of the existing treatment system and will allow the Discharger to meet the limitations within the timeframe specified herein without being in violation of this Order.
18. California Water Code section 13263(c) also provides for a time schedule to meet the requirements of a WDRs Order.

CEQA and NOTIFICATION

19. In compliance with the provisions of the California Environmental Quality Act (Public Resources Code section 21000 et seq.), the Resource Management Agency of Ventura County filed a Notice of Exemption for the interim upgrade to 260,000 gpd of the Plant on November 7, 2002.

20. The Regional Board has notified the Discharger and interested agencies and persons of the intent to issue WDRs for this discharge, and has provided them with an opportunity to submit their written views and recommendations for the requirements.
21. The Regional Board, in a public meeting, heard and considered all comments pertaining to the discharge and to the tentative requirements.
22. Pursuant to California Water Code section 13320, any aggrieved party may seek review of this Order by filing a petition with the State Board. A petition must be received by the State Water Resources Control Board, P.O. Box 100, Sacramento, California, 95812, within 30 days of the date this Order is adopted.

IT IS HEREBY ORDERED that the Discharger, Ventura County Waterworks District No. 16 and Ventura Regional Sanitation District, shall be responsible for and shall comply with the following requirements in all operations and activities at Piru Wastewater Treatment Plant:

A. INFLUENT LIMITATIONS

1. Waste received by the Plant (“influent”) shall be limited to domestic and commercial (fruit washing) wastewater only. Water softener regeneration brines or industrial wastewater subject to the Prohibited Discharge Standards listed in 40 CFR 403.5 shall not be accepted by the Plant.
2. The influent shall not exceed an average flow of 260,000 gpd. The flow limitations also apply to effluent discharged to the percolation ponds.

B. EFFLUENT LIMITATIONS

1. Effluent discharged from the Plant shall not contain constituents in excess of the following limits:

Effluent Limitations Constituent	Units¹	Monthly Average	Daily Maximum
BOD ₅	mg/L	30	45
Suspended solids	mg/L	30	45
Ammonia plus Nitrate plus Nitrite plus Organic Nitrogen as nitrogen	mg/L	10	--
Oil and grease	mg/L	15	---
Total Dissolved Solids (TDS)	mg/L	--	1,200
Sulfate	mg/L	--	600
Chloride ²	mg/L	--	100
Boron	mg/L	--	1.50

¹ mg/L: milligrams per liter

² An exceedance of the effluent limit for chloride caused by domestic water supply shall not constitute a violation, if the Discharger provides supporting documentation that it is caused by the domestic water supply and the documentation is acceptable to the Regional Board Executive Officer.

2. Interim Effluent Limitations. Recognizing that the Discharger can not meet the effluent limitations of Section B.1. above until plant upgrades are made, interim effluent limitations are allowed as follows. The interim period is the period from the date of adoption of this Order to the date of the completion of the Plant upgrade or by January 30, 2007, whichever is sooner. During the interim period, the Discharger shall comply immediately with the following interim limits for BOD₅, suspended solids, and nitrogen:

Effluent Limitations Constituent	Units¹	Monthly Average	Daily Maximum²
BOD ₅	mg/L	---	76
Suspended solids	mg/L	---	72
Ammonia plus Nitrate Plus Nitrite plus Organic Nitrogen as nitrogen	mg/L	---	39

¹ mg/L: milligrams per liter

² Interim effluent limits were derived statistically using effluent monitoring data obtained from February 10, 2000 to February 6, 2003. Effluent values are assumed to be normally distributed. Interim effluent limits are determined using the 95th percentile.

Thereafter, the Discharger shall comply with the final limitations specified in Section B.1. of this Order.

3. The pH of wastes discharged shall be within the range of 6.5 to 8.5.

C. GROUNDWATER LIMITATIONS

1. "Receiving water" for the purpose of these WDRs is defined as groundwater at a point no greater than fifty (50) feet hydraulically downgradient of the furthest extent of the disposal area, or the property line of Piru Wastewater Treatment Plant area, whichever is less.
2. The concentration of total coliform in receiving water over a seven-day period shall be less than 1.1 most probable number (MPN) per 100 milliliters.
3. Concentrations of contaminants in receiving water shall, at all times, not exceed the following Maximum Contaminant Levels (MCLs) limits specified in the following provisions of Title 22 of the California Code of Regulations. These limits are prospective; new state and federal MCLs will be added as they are

adopted. In case of a violation of any MCL, the Discharger shall notify the Regional Board and submit a report according to Provision F.10 of this Order.

Primary MCLs specified in the Drinking Water Quality and Monitoring Requirements, Chapter 15, Title 22, California Code of Regulations (CCR):

- a. Inorganic chemicals in Section 64431, Table 64431-A, except for nitrogen compounds, Attachment A-1 of this Order;
- b. Radionuclides in Section 64443, Table 4, Attachment A-2 of this Order;
- c. Organic Chemicals in Section 64444, Tables 64444-A, Attachment A-3 of this Order.

D. REQUIREMENTS WITH INTERIM LIMITS

1. The Discharger shall submit progress reports to describe the status of the proposed treatment plant project according to the following schedule:
 - a) By September 30, 2004, the Discharger shall submit a copy of an engineering workplan to meet the effluent limits in this Order.
 - b) By December 1, 2005, the Discharger shall start construction of the treatment plant upgrade.
 - c) By March 30, 2007, the Discharger shall complete the construction and comply with the effluent limitations contained in this Order.
2. In the event that the proposed upgrade is delayed by events occurring which are beyond the Discharger's control, the Regional Board Executive Officer (Executive Officer) may, at his discretion, extend the time schedule by one time period, not to exceed six months to achieve compliance with these requirements.

E. PROHIBITIONS

1. There shall be no waste overflows or discharge of partially-treated wastes to waters of the State (including storm drains) at any time.
2. No part of the disposal system shall be closer than 100 feet to any water well.
3. No part of the treatment system and the percolation ponds shall extend to a depth below ground where wastes may deleteriously affect an aquifer that is usable for domestic purposes. At all times, a minimum of 10 feet of vertical separation between the disposal system and the water table must be maintained.

4. Wastes shall not be disposed of in geologically unstable areas or so as to cause earth movement.
5. Wastes discharged shall not impart tastes, odors, color, foaming or other objectionable characteristics to the receiving water.
6. Adequate facilities shall be provided to divert surface and storm water away from the treatment plant and disposal system and from areas where any potential pollutants are stored.
7. The wastewater treatment plant, treatment system devices, sewer collection system and the disposal system shall be protected from damage by storm flows or runoff generated by a 100-year storm.
8. There shall be no onsite permanent disposal of sludge. Sludge-drying activities at the clay-lined sludge drying system are allowed, but only as an intermediate treatment prior to off-site disposal. Any offsite disposal of sewage or sludge shall be made only to a legal point of disposal. For purposes of this Order, a legal disposal site is one for which requirements have been established by a regional water quality control board, and which is in full compliance therewith. Any sewage or sludge handling shall be in such a manner as to prevent its reaching surface waters or watercourses.
9. The treatment system, including the collection system that is a part of the treatment system and the disposal system, shall be maintained in such a manner that prevents sewage from surfacing or overflowing at any location.
10. Sewage odors shall not be detectable.
11. Wastes discharged shall at no time contain any substances in concentrations toxic to human, animal, plant, or aquatic life.
12. The discharge of waste shall not create a condition of pollution, contamination, or nuisance.
13. Nutrient materials in the waste discharged to the ponds shall not cause objectionable aquatic growth or degrade indigenous biota.
14. The direct or indirect discharge of any wastewater to surface waters or surface water drainage courses is prohibited.
15. The percolation ponds shall not contain floating materials, including solids, foams or scum in concentrations that cause nuisance, adversely affect beneficial uses, or serve as a substrate for undesirable bacterial and algae growth and insect vectors.

16. The percolation ponds, drying beds and the berms surrounding the ponds shall not contain plants, shrubs, or bushes that may damage the berms and the ponds.
17. The discharge of any wastes or overflow from the percolation ponds and drying beds to any water course or drainage ditch is prohibited at all times. The water levels in the clay-lined drying beds shall be maintained at a level to ensure that rainfall and storm flows will not cause overtopping. A minimum of two feet of freeboard is required for the percolation ponds.
18. Bypass (the intentional diversion of waste stream from any portion of a treatment facility) is prohibited. The Regional Board may take enforcement action against the Discharger for bypass unless:
 - (a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage. (Severe property damage means substantial physical damage to property, damage to the treatment facilities that cause them to become inoperable, or substantial and permanent loss in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production);
 - (b) There were no feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated waste, or maintenance during normal periods of equipment down time. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that could occur during normal periods of equipment downtime or preventive maintenance; and
 - (c) The Discharger submitted a notice at least 48 hours in advance of the need for a bypass to the Regional Board.
19. Any discharge of wastewater from the treatment system (including the wastewater collection system) at any point other than specifically described in this Order is prohibited and constitutes a violation of this Order.

F. PROVISIONS

1. A copy of this Order shall be maintained at the Plant so as to be available at all times to operating personnel.
2. The Discharger shall file with the Regional Board technical reports on self-monitoring work performed according to the detailed specifications contained in Monitoring and Reporting Program No. CI 5714 attached hereto and incorporated herein by reference, as directed by the Executive Officer. The results of any

monitoring done more frequently than required at the location and/or times specified in the Monitoring and Reporting Program shall be reported to the Regional Board.

Monitoring and Reporting Program No. 5714 contains requirements, among others, specifying that a monitoring program for groundwater shall be established so that the groundwater immediately downgradient and upgradient from the discharge area can be measured, sampled, and analyzed to determine if discharges from the percolation ponds system are impacting water quality. The Discharger is currently implementing a groundwater-monitoring program approved by the Regional Board staff.

3. Should monitoring data indicate contamination of groundwater or discharge-related violations of receiving water limitations, the Discharger shall submit, within 60 days after discovery of the problem, plans for measures that will be taken, or have been taken, to mitigate any long-term effects that may result from the subsurface disposal of wastes.
4. In accordance with section 13260(c) of the California Water Code, the Discharger shall file a report of any material change or proposed change in the character, location, or volume of the discharge.
5. The Discharger shall ensure that the capacity of the disposal area is adequate for the discharge and that adequate steps are taken to accommodate system failures and/or to deal with loss of the soil assimilative capacity.
6. The Discharger shall have the existing drying sludge beds system evaluated for integrity of the engineered clay liner within 90 days from the date of adoption of this Order. Within 45 days of the evaluation of the engineered clay liner, the Discharger shall submit the results of the evaluation including a schematic drawing showing the clay liner thickness and boundary, and a statement that the engineered clay liner can fully impede percolation of liquid waste from the sludge beds. The evaluation report shall include corrective measures to prevent any possible percolation.
7. The Discharger shall cause the treatment and disposal systems to be inspected annually during the life of this Order by an inspector to be retained by the Discharger. The inspector shall specify the condition of the treatment system and the disposal system. The inspector should also assess the capacity of the percolation ponds system and waste sludge drying beds system.
8. The Discharger shall file a written report with the Regional Board within 90 days after the average dry-weather flow for any month equals or exceeds 90 percent of the design capacity of the waste treatment and/or disposal facilities. The

- report shall detail provisions to cope with flows in excess of 90 percent of the design capacity.
9. The Discharger shall take all reasonable steps to minimize or prevent any discharge that has a reasonable likelihood of adversely affecting human health or the environment.
 10. For any violation of requirements in this Order, the Discharger shall notify the Regional Board within 24 hours of knowledge of the violation either by telephone or electronic mail. The notification shall be followed by a written report within one week. The Discharger in the next monitoring report shall also confirm this information. In addition, the report shall include the reasons for the violations or adverse conditions, the steps being taken to correct the problem (including dates thereof), and the steps being taken to prevent a recurrence.
 11. This Order does not relieve the Discharger from the responsibility to obtain other necessary local, state, and federal permits to construct facilities necessary for compliance with this Order; nor does this Order prevent imposition of additional standards, requirements, or conditions by any other regulatory agency.
 12. After notice and opportunity for a hearing, this Order may be terminated or modified for causes including, but not limited, to:
 - a) Violation of any term or condition contained in this Order;
 - b) Obtaining this Order by misrepresentation, or failure to disclose all relevant facts; or
 - c) A change in any condition, or the discovery of any information, that requires either a temporary or permanent reduction or elimination of the authorized discharge.
 13. The Discharger shall furnish, within a reasonable time, any information the Regional Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order. The Discharger shall also furnish to the Regional Board, upon request, copies of records required to be kept by this Order.
 14. This Order includes the attached *Standard Provisions Applicable to Waste Discharge Requirements* which are incorporated herein by reference. If there is any conflict between provisions stated herein and the *Standard Provisions Applicable to Waste Discharge Requirements*, the provisions stated herein will prevail.

15. The Discharger shall allow the Regional board, or an authorized representative upon the presentation of credentials and other documents as may be required by law, to:
 - (a) Entry upon the Discharger 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 locations.
16. The WDRs contained in this Order will remain in effect for a period of five years. Should the Discharger wish to continue discharging to groundwater for a period of time in excess of five years, the Discharger must file an updated Report of Waste Discharge with the Regional Board no later than 180 days in advance of the fifth-year anniversary date of the Order for consideration of issuance of new or revised waste discharge requirements. Any discharge of waste four and one half years after the date of adoption of this Order, without filing an updated Report of Waste Discharge with the Regional Board, is a violation of California Water Code section 13264. The Regional Board is authorized to take appropriate enforcement action for any noncompliance with this provision including assessment of penalties.
17. In accordance with the Governor's Executive Order requiring any proposed activity to be reviewed to determine whether such activity will cause additional energy usage, Regional Board staff believe that implementation of these WDRs would not cause a considerable increase in energy usage.
18. All discharges of waste into the waters of the State are privileges, not rights. In accordance with Water Code section 13263(g), these requirements shall not create a vested right to continue to discharge and are subject to rescission or modification.

G. REOPENER

This Order may be reopened to delete outdated requirements, or to include additional or modified requirements to address pollutant loading problems verified by monitoring data, Discharger expansion or mitigation plans, or TMDL or Basin Plan mandates.

H. RESCISSION

Order No. 99-092, adopted by the Regional Board on September 16, 1999, is hereby rescinded, except for enforcement purposes.

I, Dennis A. Dickerson, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on January 29, 2004.

Dennis A. Dickerson
Executive Officer

January 29, 2004