

State of California
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, LOS ANGELES

ORDER NO. 94-055

WASTE DISCHARGE REQUIREMENTS
WATER RECLAMATION REQUIREMENTS
FOR
LAS VIRGENES MUNICIPAL WATER DISTRICT
AND
PEPPERDINE UNIVERSITY, MALIBU CAMPUS
(Tapia Water Reclamation Facility)
(Files Nos. 64-104 & 70-060)

The California Regional Water Quality Control Board, Los Angeles Region, Finds:

1. The Las Virgenes Municipal Water District (Reclaimer) operates Tapia Water Reclamation Facility (Plant), located at 731 Malibu Road, Calabasas, California (Figure 1). The treatment plant has a design capacity of 16.1 million gallons per day (mgd). During 1993, the Reclaimer produced an average of 4.4 mgd of tertiary treated effluent for reclamation by spray landscape irrigation, agriculture, and industrial use under separate Waste Discharge Requirements contained in Orders Nos. 79-35, 79-107, 87-86 and 89-76 (File No. 64-104) adopted by this Regional Board on February 26, 1979, June 25, 1979, June 22, 1987, and February 25, 1989, respectively.
2. Pepperdine University (User) uses reclaimed water produced by the Reclaimer for landscape irrigation. The amount of reclaimed used supports approximately 60 of the 830 acres of the Pepperdine University - Malibu Campus, located at 24255 Pacific Coast Highway, Malibu, California, under Water Reclamation Requirements contained in Order No. 86-97, adopted by this Regional Board on November 24, 1986.
3. The User also receives reclaimed water produced at the Malibu Mesa Wastewater Treatment Facility operated by the County of Los Angeles - Department of Public Works, Engineering Services Division under separate Waste Discharge Requirements/Water Reclamation Requirements contained in Order No. 86-38, adopted by this Regional Board on June 23, 1986.
4. The California Water Code Section 13263(e) provides that all requirements shall be reviewed periodically, and, upon such review, may be revised by the Regional Board. A review of the current requirements, followed by a site inspection, was conducted by Regional Board staff and no violations were observed.

May 11, 1994

These Waste Discharge Requirements/Water Reclamation Requirements have been revised to include additional findings, effluent limitations, updated standard provisions, and an expanded monitoring and reporting program.

5. The Reclaimer operates a tertiary wastewater treatment plant in order to provide an effluent that complies with all Title 22 Water Reclamation Requirements.
6. The treatment plant is located in Section 19, T1S, R17W, San Bernardino Base & Meridian at latitude $34^{\circ} 4' 37''$, longitude $118^{\circ} 42' 15''$. The landscape irrigation areas are generally located in Section 30, T1S, R17W, at the approximate latitude $34^{\circ} 2' 31''$ and longitude $118^{\circ} 42' 33''$.
7. The wastewater treatment process consists of primary, secondary, and tertiary treatment. Primary treatment includes coarse screening, grit removal, and primary skimming and sedimentation using rectangular clarifiers. Secondary treatment employs activated sludge with single-stage nitrification followed by secondary clarification. Tertiary treatment includes the use of coagulation chemicals, flocculating, filtering, chlorination and de-chlorination. Sludge from the primary and secondary clarifiers is treated by anaerobic digestion, then dried in sludge drying beds at the Plant. The sludge is either transported to a landfill for disposal or composted and used for landscape soil amendment.
8. Prior to use for landscape irrigation, reclaimed water is stored in landscaped holding ponds with a combined storage capacity of approximately 12.4 million gallons. Reclaimed water is then pumped to a 10,000 gallon below-ground storage tank, that provides for gravity flow to the landscape irrigation systems.
9. The amount of reclaimed water used for landscape irrigation varies with demand, up to 300,000 gallons per day (gpd). Approximately 70% of the reclaimed water used is produced at the Malibu Mesa Wastewater Treatment Facility, and 30% is produced at the Las Virgenes Municipal Water District, Tapia Water Reclamation Facility. At times, 100% (196,000 gpd) of the reclaimed water is supplied by Malibu Mesa Wastewater Treatment Facility.

10. Section 13523 of the California Water Code provides that a Regional Board, after consulting with, and receiving the recommendations of the State Department of Health Services, and after any necessary hearing, shall, if it determines such action to be necessary to protect the public health, safety, or welfare, prescribe Waste Discharge Requirements/Water Reclamation Requirements for water which is used, or proposed to be used, as reclaimed water.

Section 13523 further provides that such requirements shall include, or be in conformance with, the statewide reclamation criteria.

11. The Regional Board has consulted with the State Department of Health Services (DHS) regarding the current reclamation of tertiary-treated wastewater, and has incorporated the DHS findings and recommendations.
12. The use of reclaimed water for surface impoundments or for landscape irrigation could affect the public health, safety, or welfare; requirements for such use are therefore necessary in accordance with Section 13523 of the California Water Code.
13. The Plant is located within the Monte Nido Hydrologic Subarea of the Malibu Creek Hydrologic Area. The Users storage ponds and landscape irrigation areas are located within the Corral Canyon Hydrologic Subarea of the Point Dume Hydrologic Area, and overlies the Malibu Valley Groundwater Basin.
14. Groundwater in the Malibu Valley Groundwater Basin is beneficially used for agricultural supply.
15. The Board adopted revised Water Quality Control Plan for the Los Angeles River Basin on June 3, 1991. The Water Quality Control Plan contains beneficial uses and water quality objectives for groundwater within the Malibu Valley Groundwater Basin. The requirements contained in this Order, as they are met, will be in conformance with the goals and objectives of the Water Quality Control Plan.
16. This project involves an existing facility, and, as such, is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 2100 et seq.) in accordance with Title 14, California Code of Regulations, Chapter 3, Section 15301.

The Regional Board has notified the Reclaimer, User and interested agencies and persons of its intent to revise Waste Discharge Requirements/Water Reclamation Requirements for this discharge and has provided them with an opportunity to submit their written views and recommendations.

The Regional Board, in a public meeting, heard and considered all comments pertaining to the discharge and to the updated requirements.

IT IS HEREBY ORDERED that Las Virgenes Municipal Water District and Pepperdine University, Malibu Campus, shall comply with the following:

A. EFFLUENT LIMITATIONS

1. Reclaimed water shall be limited to treated domestic and commercial wastewater only, as proposed.
2. Waste discharge shall not contain constituents in excess of the following limits:

<u>Constituent</u>	<u>Unit</u>	<u>Maximum Effluent Limitations</u>
Total dissolved solid	mg/L	2,000
Chloride	mg/L	500
Sulfate	mg/L	500
Boron	mg/L	2
BOD ₅ , 20°C	mg/L	30
Oil & grease	mg/L	15
Suspended solids	mg/L	30
Total organic carbon	mg/L	20

3. The pH of reclaimed water shall at all times be within the range of 6.5 to 8.5 pH units.

4. Reclaimed water shall not contain heavy metals, arsenic, or cyanide in concentrations exceeding the limits contained in the current California Drinking Water Standards.
5. Radioactivity shall not exceed the limits specified in Title 22, California Code of Regulations, Chapter 15, Article 5, Sections 64441 and 64443, or subsequent revisions.

B. SPECIFICATIONS FOR USE OF RECLAIMED WATER

1. Reclaimed water used for the irrigation of parks, playgrounds, schoolyards, and other areas where the public has similar access or exposure shall be at all times an adequately disinfected, oxidized, coagulated, clarified, filtered wastewater or wastewater treated by a sequence of unit processes that will ensure an equivalent degree of treatment and reliability.

The wastewater shall be considered adequately disinfected if the 7-day median number of coliform organisms in the effluent does not exceed 2 per 100 milliliters, as determined from the bacteriological results of the last 7-days for which analyses have been completed, and the number of coliform organisms does not exceed 23 per 100 milliliters in any sample.

An oxidized wastewater means wastewater in which the organic matter has been stabilized, is nonputrescible, and contains dissolved oxygen. For the purpose of these requirements, an oxidized wastewater shall be equivalent to secondary effluent with the following characteristics:

- (a) a biological oxygen demand, BOD₅, 20°C, value of less than 30 mg/L;
- (b) a suspended solids (SS) content of less than 30 mg/L; and
- (c) total organic carbon (TOC) value of less than 20 mg/L.

A coagulated wastewater means an oxidized wastewater in which colloidal and finely divided suspended matter have been destabilized and agglomerated by the addition of suitable floc-forming chemicals or by an equally effective method.

A filtered wastewater means an oxidized, coagulated, clarified wastewater which has been passed through natural undisturbed soils or filter media, such as sand or diatomaceous earth, so that the turbidity as determined by an approved laboratory method does not exceed an average operating turbidity of 2 turbidity units and does not exceed 5 turbidity units more than 5 percent of the time during any 24-hours period.

2. Reclaimed water shall not be directly used for uses other than those enumerated above until requirements for these uses have been established by this Regional Board, in accordance with Section 13523 of the California Water Code, unless the Regional Board waives such requirements or finds that the above cited standards are applicable to these uses.
3. Reclaimed water uses shall meet the requirements specified in the "Guidelines for Use of Reclaimed Water" issued by the State Department of Health Services.
4. Reclaimed water used for irrigation shall be retained on the areas of use and shall not be allowed to escape as surface flow, except as provided for in a National Pollutant Discharge Elimination System (NPDES) Permit.

For the purpose of this requirement, however, minor amounts of irrigation return water from peripheral areas shall not be considered a violation of this Order.

5. Reclaimed water shall be applied at such a rate and volume as not to exceed vegetative demand and soil moisture conditions. Special precautions must be taken to prevent clogging of spray nozzles, to prevent over-watering and to exclude the production of runoff. Pipelines shall be maintained so as to prevent leakage.

6. Reclaimed water used for irrigation shall not be allowed to run off into recreational lakes unless it meets the criteria for such lakes.
7. Reclaimed water shall not be used for irrigation within 150 feet of any water well or mineral spring.
8. At locations within the facility, along the perimeter, at points of access to the area where reclaimed water is used, signs shall be posted with the following warning: "ATTENTION: RECLAIMED WASTEWATER-AVOID CONTACT - DO NOT DRINK".

C. GENERAL REQUIREMENTS

1. The discharge or use of raw or inadequately treated sewage at any time is prohibited.
2. Reclaimed water shall not be used for irrigation during periods of extreme rainfall and/or runoff.
3. Standby or emergency power facilities and/or sufficient capacity shall be provided for reclaimed water storage during rainfall or in the event of plant upsets or outages, and at times when spray irrigation cannot be practiced.
4. Reclaimed water use or disposal shall not result in earth movement in geologically unstable areas.
5. Adequate facilities shall be provided to protect the sewage treatment and reclamation facilities from damage by storm flows and runoff.
6. Adequate freeboard shall be maintained in the reclaimed water holding pond to ensure that direct rainfall will not cause overtopping.
7. Neither treatment of waste nor any reclaimed water use or disposal shall cause pollution or nuisance.
8. Water reclamation and reuse or disposal shall not result in problems due to breeding of mosquitoes, gnats, midges, or other pests.

9. Reclaimed water use or disposal shall not impart tastes, odors, color, foaming, or other objectionable characteristics to receiving groundwater.
10. Reclaimed water use or disposal, which could affect receiving groundwater, shall not contain any substance in concentrations toxic to human, animal, or plant life.
11. Odors of sewage origin shall not be perceivable beyond the limits of the property owned or controlled by the Reclaimer.
12. At a minimum, a certified Grade IV Wastewater Treatment Plant Operator shall inspect the treatment plant, on a weekly basis, to ensure that the treatment processes are working properly, and that the plant effluent wastewaters are in compliance with this Order.

D. PROVISIONS

1. A copy of these requirements shall be maintained at the reclamation and discharge facilities so as to be available at all times to operating personnel.
2. In accordance with Section 13522.5 of the California Water Code, and Section 60323 of the Wastewater Reclamation Criteria, the Reclaimer shall file an engineering report, prepared by a properly qualified engineer registered in California, of any material change or proposed change in character, location or volume of the reclaimed water or its uses to the Regional Board and to the State Department of Health Services.
3. The Reclaimer and User shall file with the Board technical reports on self-monitoring work performed according to the detailed specifications contained in the Monitoring and Reporting Program, as directed by the Executive Officer.

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

4. The Reclaimer and User shall notify this Board, by telephone within 24 hours, of any violations of reclaimed water use conditions or any adverse conditions as a result of the use of reclaimed water from this facility; written confirmation shall follow within one week.
5. The Reclaimer and User shall notify Board staff, by telephone, immediately, of any confirmed coliform counts that could cause a violation of the Waste Discharge Requirements, including the date(s) thereof. This information shall be confirmed in the next monitoring report; in addition, for any actual coliform limit violations that occurred, the report shall also include the reasons for the high coliform results, the steps being taken to correct the problem (including dates thereof), and steps been taken to prevent a recurrence.
6. These requirements do not exempt the Reclaimer and/or User from compliance with any other laws, regulations, or ordinances which may be applicable; they do not legalize this reclamation and discharge facilities, and they leave unaffected any further constraint on the use of reclaimed water at this site which may be contained in other statutes or required by other agencies.
7. The Reclaimer shall be responsible to ensure that all users of reclaimed water comply with the specifications and requirements for such use.
8. This Order does not alleviate the responsibility of the Reclaimer or User 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. Expansion of this facility from its current capacity shall be contingent upon issuance of all necessary permits, including a Conditional Use Permit.
9. For any extension or expansion of the reclaimed water discharge system, the User shall submit a report detailing the extension or expansion for the approval of the Executive Officer. Following construction, as-built drawings shall be submitted to the Executive Officer for approval prior to use of reclaimed water.

10. The Reclaimer shall submit to the Regional Board, within 60 days of the adoption of this Order, procedures that will be (or have been) taken to ensure that discharge of untreated sewage from the treatment facility, in the event of equipment failure, will not occur.
11. Raw sewage or partially dried waste sludge shall not be sprayed on ground surface.
12. Any offsite disposal of sewage sludge shall be made only to a legal point of disposal, and in accordance with provisions of Division 7.5 of the California Water Code. For the purpose of these requirements, a legal point of disposal is defined as one for which Waste Discharge Requirements have been established by a California Regional Water Quality Control Board, and is in full compliance therewith.
13. Any discharge of reclaimed water at any point(s) other than specifically described in this Order is prohibited, and constitutes a violation of the Order.
14. After notice and opportunity for a hearing, this Order may be terminated or modified for cause, 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;
 - (c) A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.
15. The Reclaimer and User 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 Reclaimer and User shall also furnish to the Regional Board, upon request, copies of records required to be kept by this Order.

16. The Reclaimer and User shall take all reasonable steps to minimize or prevent any discharge that has a reasonable likelihood of adversely affecting human health or the environment.
17. Bypass (the intentional diversion of waste streams from any portion of a treatment facility) is prohibited. The Regional Board may take enforcement action against the Reclaimer 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 causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur 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 Reclaimer submitted a notice at least ten days in advance of the need for a bypass to the Regional Board.

The Reclaimer may allow a bypass to occur that does not cause reclaimed water limitations to be exceeded, but only if it is for essential maintenance to ensure efficient operation. In such a case, the above bypass conditions are not applicable.

18. The Reclaimer and User shall establish a responsible party to comply with this Order and the monitoring and reporting program. This information shall be provided to the Board at least 30 days of receiving this Order.

Thereafter, the responsible party must notify the Board, in writing, at least 30 days in advance of any proposed transfer of this Order's responsibility and coverage to a new Reclaimer and/or User. The notice must include a written agreement between the existing and new Reclaimer containing a specific date for the transfer of responsibility under this Order and compliance between the current and new Reclaimer and/or User.

19. This Order includes "Standard Provisions Applicable to Waste Discharge Requirements". If there is any conflict between provisions stated herein and the "Standard Provisions Applicable to Waste Discharge Requirements", these provisions stated herein will prevail.

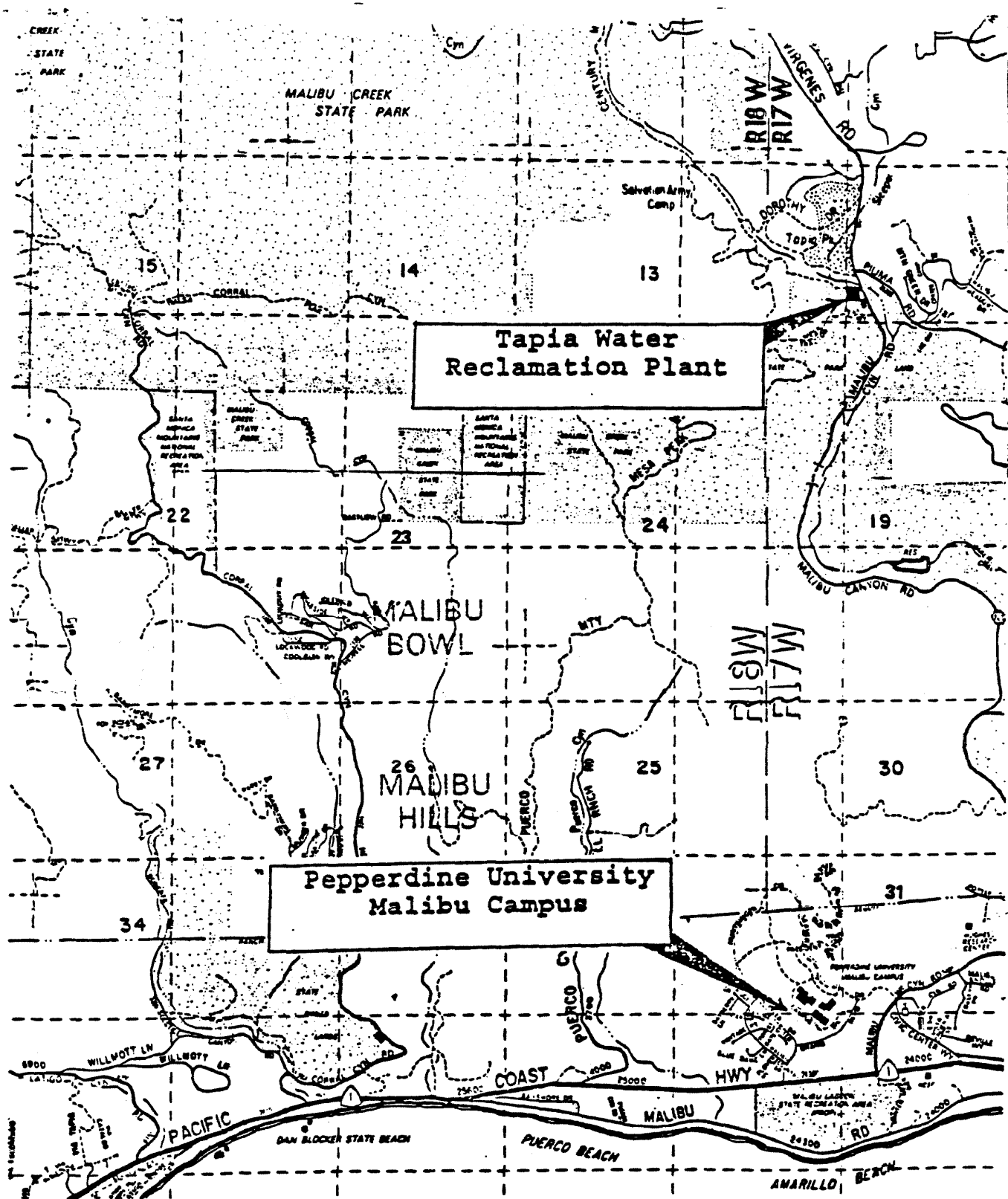
E. RESCISSION

Order No. 86-97, adopted by this Board on November 24, 1986, is hereby rescinded.

I, Robert P. Ghirelli, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of a revised Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on June 13, 1994.


ROBERT P. GHIRELLI, D.Env.
Executive Officer

/MB



TAPIA WATER RECLAMATION PLANT

Location Map (Figure 1)