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

ORDER NO. 87-132

WATER RECLAMATION REQUIREMENTS

FOR

CAMARILLO SANITARY DISTRICT
(Water Reclamation Plant)
(File No. 54-181)

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

1. Camarillo Sanitary District reclaims wastewater for reuse at its Water Reclamation Plant under requirements contained in Order No. 79-159, adopted by this Board on October 22, 1979.

2. Camarillo Sanitary District (hereinafter referred to as "Reclaimer") operates a Water Reclamation Plant at 150 East Howard Road, Camarillo, California, with a design capacity of 6.75 million gallons per day (mgd) and an average flow of 3.60 mgd (1986). All or a portion of the treated municipal wastewater is stored in a reservoir and used for irrigation of farmland or landscape irrigation in a nearby cemetery.

3. Treatment consists of primary sedimentation, activated sludge biological treatment, secondary sedimentation, chlorination and dechlorination.

4. Sludge is treated by both aerobic and anaerobic digestion and is dried on sand beds. The dried sludge is hauled to a sod farm and a legal disposal site in approximately equal amounts.

5. The treated wastewater may also be discharged to Conejo Creek under separate waste discharge requirements and National Pollutant Discharge Elimination System permit (NPDES Permit No. CA0053597) adopted by this Board.

6. A review of the current requirements has been conducted by Board staff in accordance with California Administrative Code, Title 23, Chapter 3, Subchapter 9, Article 2, Section 2232.2.

7. The areas of the holding reservoir, irrigation, reuse, and the sludge disposal site are located within the Santa Clara River Basin, Oxnard Plain Hydrologic Subunit.

8. The Board adopted a revised Water Quality Control Plan for Santa Clara River Basin on March 27, 1978. The Water Quality Control Plan contains water quality objectives for ground water in the Oxnard Plain Hydrologic Subunit. The requirements contained in this Order, as they are met, will be in conformance with the goals of the Water Quality Control Plan.

9. Ground water in the semiperched zone of Pleasant Valley Hydrologic Subarea within the Oxnard Plain Subunit is beneficially used for industrial service supply and agricultural supply.

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 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 use of reclaimed water for impoundments or for irrigation could affect the public health, safety, or welfare; requirements for such use are therefore necessary in accordance with Section 13523 of the Water Code.

12. This project involves an existing facility and as such is exempt from the provisions of the California Environmental Quality Act in accordance with Title 14, California Administrative Code, Chapter 3 Section 15301.

The Board has notified the Reclaimer and interested agencies and persons of its intent to revise the water reclamation requirements for this discharge and has provided them with an opportunity to submit their written views and recommendations.

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

IT IS HEREBY ORDERED, that Camarillo Sanitary District shall comply with the following:

A. Reclaimed Water Limitations

1. Reclaimed water shall be limited to treated municipal wastewater only, as proposed.

2. Reclaimed water shall not contain constituents in excess of the following limits:

Constituent	Unit	Maximum Limit
Total dissolved solids	mg/l	1,200
Chloride	mg/l	175
Sulfate	mg/l	600
Boron	mg/l	1.0

3. The pH of reclaimed water shall at all times be within the range 6.0 to 9.0.

4. Reclaimed water shall not contain trace constituents or other substances in concentrations exceeding the limits contained in the current edition of the California Department of Health Services Drinking Water Standards.

5. Radioactivity shall not exceed the limits specified in Title 22, Chapter 15, Article 5, Section 64441 and 64443, California Administrative Code, or subsequent revisions.

6. Reclaimed water shall not cause the nitrogen content in the receiving ground water to exceed the objectives in the Water Quality Control Plan.

7. Reclaimed water used for agricultural supply shall not contain concentrations of chemical constituents in amounts that adversely affect such beneficial use.

B. Specification for Use of Reclaimed Wastewater

1. Reclaimed water used for surface or spray irrigation of fodder, fiber, and seed crops shall have a level of quality no less than that of primary effluent.

   Primary effluent is the effluent from a wastewater treatment process which provides removal of sewage solids so that it contains not more than 0.5 milliliter per liter per hour of settleable solids as determined by an approved laboratory method.

2. Reclaimed water used for the spray irrigation of food crops shall be at all times an adequately disinfected, oxidized, coagulated, clarified, filtered wastewater. The wastewater shall be considered adequately disinfected if at some location in the treatment process the median number of coliform organisms does not exceed 2.2 per 100 milliliters and the number of coliform organisms does not exceed 23 per 100 milliliters in more than one sample within any 30-day period. The median value shall be determined from the bacterial results of the last 7 days for which analyses have been completed.

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 30-day average BOD_5 20°C and suspended solids not exceeding 30 mg/l.

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-hour period.

3. Reclaimed water used for surface irrigation of food crops shall be at all times an adequately disinfected, oxidized wastewater. The wastewater shall be considered adequately disinfected if at some location in the treatment process the median number of coliform organisms does not exceed 2.2 per milliliters, as determined from the bacteriological results of the last 7 days for which analyses have been completed. Orchard and vineyards may be surface irrigated with reclaimed water that has the quality at least equivalent to that of primary effluent provided that no fruit is harvested that has come in contact with the irrigating water or the ground.

4. Exceptions to the quality requirements for reclaimed water used for irrigation of food crops may be considered on an individual case basis where the reclaimed water is to be used to irrigate a food crop which must undergo extensive commercial, physical or chemical processing sufficient to destroy pathogenic agents before it is suitable for human consumption.

5. Reclaimed water used for the irrigation of pasture to which milking cows or goats have access shall be at all times an adequately disinfected, oxidized wastewater. The wastewater shall be considered adequately disinfected if at some location in the treatment process the median number of coliform organisms does not exceed 23 per 100 milliliters, as determined from the bacteriological results of the last 7 days for which analyses have been completed.

6. Reclaimed water used for the irrigation of golf courses, cemeteries, freeway landscapes, and landscapes in other areas where the public has similar access or exposure shall be at all times an adequately disinfected, oxidized wastewater. The wastewater shall be considered adequately disinfected if the median number of coliform organisms in the effluent does not exceed 23 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 240 per 100 milliliters in any two consecutive samples.

7. 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 a wastewater treated by a sequence of unit processes that will assure an equivalent degree of treatment and reliability. The wastewater shall be considered adequately disinfected if the median number of coliform organisms in the effluent does not exceed 2.2 per 100 milliliters as determined from the bacteriological results of the last 7 days for which analysis have been completed, and the number of coliform organisms does not exceed 23 per 100 milliliters in any sample.

8. Reclaimed water used for irrigation shall not be allowed to run off into recreational lakes unless it meets the criteria for such lakes.

9. Reclaimed water used as a source of supply in a nonrestricted recreational impoundment shall be at all times an adequately disinfected, oxidized, coagulated, clarified, filtered wastewater. The wastewater shall be considered adequately disinfected if at some location in the treatment process the median number of coliform organisms does not exceed 2.2 per 100 milliliters and the number of coliform organisms does not exceed 23 per 100 milliliters in more than one sample within any 30-day period. The median value shall be determined from the bacteriological results of the last 7 days for which analyses have been completed.

10. Reclaimed water used as a source of supply in a restricted recreational impoundment shall be at all times an adequately disinfected, oxidized wastewater. The wastewater shall be considered adequately disinfected if at some location in the treatment process the median number of coliform organisms does not exceed 2.2 per 100 milliliters, as determined from the bacteriological results of the last 7 days for which analyses have been completed.

11. Reclaimed water used as a source of supply in a landscape impoundment shall be at all times an adequately disinfected, oxidized wastewater. The wastewater shall be considered adequately disinfected if at some location in the treatment process the median number of coliform organisms does not exceed 23 per 100 milliliters, as determined from the bacteriological results of the last 7 days for which analyses have been completed.

12. Reclaimed water 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 permit. For the purpose of this requirement, however, minor amount of irrigation return water of secondary quality or better from peripheral areas shall not be considered a violation of this Order provided the discharge meets the requirements contained in a National Pollutant Discharge Elimination System for the Camarillo Sanitary District.

13. Reclaimed water shall not be directly used for uses other than those enumerated above until requirements for these uses have been established by this Board in accordance with Section 13523 of the California Water Code, unless the Board waives such requirements or finds that the requirements contained herein are applicable to these uses.

14. Reclaimed water uses shall meet the requirements specified in the "Guidelines for Use of Reclaimed Water" issued by the State Department of Health Services.

15. 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 overwatering and to exclude the production of runoff. Pipelines shall be maintained so as to prevent leaks.

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 extended rainfall and/or runoff.

3. No part of any irrigation or percolation system shall be closer than 100 feet from any potable water well.

4. 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 time when spray irrigation cannot be practiced.

5. Reclaimed water use or disposal shall not result in earth movement in geologically unstable areas.

6. Any offsite disposal of sewage or sludge shall be only at a legal point of disposal. For purposes of these requirements, a legal point of disposal is one for which requirements have been established by a California Regional Water Quality Control Board and which is in full compliance therewith. Any sewage or sludge handling shall be in a manner as to prevent its reaching surface waters or watercourses.

7. Adequate facilities shall be provided to protect the sewage treatment and reclamation facilities from damage by storm flows and runoff.

8. Adequate freeboard shall be maintained in reclaimed water storage ponds to ensure that direct rainfall will not cause overtopping.

9. Neither treatment of waste nor any reclaimed water use or disposal shall cause pollution or nuisance.

10. Water reclamation and reuse or disposal shall not result in problems due to breeding of mosquitoes, gnats, midges, or other pests.

11. Reclaimed water use or disposal shall not impart tastes, odors, color, foaming, or other objectionable characteristics to receiving ground waters.

12. Reclaimed water use or disposal which could affect receiving ground waters shall not contain any substance in concentrations toxic to human, animal, or plant life.

13. Odors of sewage origin shall not cause a nuisance.

14. All new or modified construction, sludge drying and storage areas, and sewage ponds shall be protected against 100-year, 50-year, and 25-year floods, respectively.

D. Provisions

1. A copy of these requirements shall be maintained at the reclamation facility so as to be available at all times to operating personnel.

2. In the event of any change in name, ownership, or control of these waste treatment and reclamation facilities, the Reclaimer shall notify this Board of such change and shall notify the succeeding owner or operator of the existence of this Order by letter, copy of which shall be forwarded to the Board.

3. In accordance with Section 13522.5 of the 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 Board and State Department of Health Services.

4. The Reclaimer shall file with the Board technical reports on self monitoring work performed according to the detailed specifications contained in the Monitoring and Reporting Programs, as directed by the Executive Officer.

5. The Reclaimer 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.

6. The Reclaimer shall notify Board staff by telephone immediately of any confirmed coliform counts that could cause a violation of the 7-day median limit, 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 the steps being taken to prevent a recurrence.

7. These requirements do not exempt the Reclaimer from compliance with any other laws, regulations, or ordinances which may be applicable; they do not legalize this reclamation facility, and they leave unaffected any further restraint on the use of reclaimed water at this site which may be contained on other statutes or required by other agencies.

8. The Reclaimer shall be responsible to insure that all users of reclaimed water comply with the specifications and requirements for such use.

9. This Order does not alleviate the responsibility of the Reclaimer 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.

10. Supervisors and operators of this publicly owned wastewater treatment plant shall possess a certificate of appropriate grade as specified in California Administrative Code, Title 23, Chapter 3, Subchapter 14, Section 2455 and 2460.

11. The Reclaimer shall provide to each user of reclaimed water from this facility a copy of these requirements, to be maintained at the user's facility as to be available at all times to operating personnel.

12. For any extension of the reclaimed water system, the Reclaimer shall submit a report detailing the extension 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.

13. The Reclaimer shall submit to the Board within 60 days of the adoption of this Order, a fail-safe procedure for approval by the Executive Officer.

14. The Reclaimer shall file a written report with this Board within 90 days after the average dry-weather waste flow for any month equals or exceeds 90 percent of the design capacity of the water treatment and/or disposal facilities. The report shall detail provisions to cope with flows in excess of that figure.

15. Order No. 79-159 adopted by this Board on October 22, 1979, is hereby rescinded.

I, Robert P. Ghirelli, 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 September 28, 1987.

Robert P. Ghirelli

ROBERT P. GHIRELLI, D.Env.
Executive Officer

BC:sml

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

MONITORING AND REPORTING PROGRAM NO. 6187
FOR

CAMARILLO SANITARY DISTRICT
(Water Reclamation Plant)
(File No. 54-181)

The Reclaimer shall implement this monitoring program within 60 days of the effective date of this Order.

Monitoring reports shall be submitted by the dates in the following schedule:

Reporting Period	Report Due
January - March	April 15
April - June	July 15
July - September	October 15
October - December	January 15

The first monitoring report under this program shall be submitted by Janaury 15, 1988.

Values aobtained for the NPDES monitoring report during periods of surface discharge may be reported here in lieu of duplicate testing, if representative. However, values obtained for this monitoring report (non-NPDES) shall be reported separately from NPDES monitoring reports. Quarterly monitoring shall be performed during the months of February, May, August, and November. The reports for January quarters shall also include the results of the annual analyses.

If no water was delivered for reuse on any day(s), during the reporting period the report shall so state.

By January 30 of each year beginning January 1988, the Reclaimer shall submit an annual report to the board. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year. In addition, the Reclaimer shall discuss the compliance record and the corrective actions taken or planned which may be needed to bring the discharge into full compliance with the requirements.

Each monitoring report must affirm in writing that:

> All analyses were conducted at a laboratory certified for such analyses by the State Water Resources Control Board or approved by the Executive Officer and in accordance with current EPA guideline procedures, or as specified in the Monitoring Program.

For any analysis performed for which no procedure is specified in the EPA guidelines or in this Monitoring Program, the constituent or parameter analyzed and the method or procedure used must be specified in the report.

I. Reclaimed Water Monitoring

A sampling station shall be established where representative samples of reclaimed water can be obtained. Reclaimed water samples may be obtained at a single station provided that station is representative of the quality at all discharge points. Each sampling station shall be identified. The following shall constitute the reclaimed water monitoring program:

Constituent	Units	Type of Sample	Minimum Frequency of Analysis
Total flow[1]	gallons	continuous	----
Turbidity[2]	NTU	continuous	----
BOD_5 20°C	mg/l	24-hr. composite	daily
Suspended solids	mg/l	24-hr. composite	daily
Coliform group[3]	MPN/100ml	grab	daily
pH	pH units	grab	daily
Settleable solids	ml/l	grab	daily
Total dissolved solids	mg/l	24-hr composite	monthly
Chloride	mg/l	24-hr composite	monthly
Sulfate	mg/l	24-hr composite	monthly
Boron	mg/l	24-hr composite	monthly
Arsenic	mg/l	24-hr composite	annually
Barium	mg/l	24-hr composite	annually
Cadmium	mg/l	24-hr composite	annually
Chromium	mg/l	24-hr composite	annually
Lead	mg/l	24-hr composite	annually
Mercury	mg/l	24-hr composite	annually

[1] Shall report the daily volume of reclaimed water and the monthly volume used at each site.

[2] Required only for applications having a turbidity limit. The average value recorded each day and amount of time that 5NTU was exceeded each day shall be reported. Turbidity samples may be obtained anywhere in the treatment process subsequent to the filtration procedure.

[3] Samples shall be obtained at some point in the treatment process at a time when wastewater flow and characteristics are most demanding on the treatment facility and disinfection procedures. The location(s) of the sampling point(s) and any changes thereto must be approved by the Executive Officer, and proposed changes shall not be made until such approval has been granted. Coliform values obtained must meet the strictest requirements specified for all uses during periods of multiple use, unless separate coliform analyses are obtained at each particular point of use.

Constituent	Units	Type of Sample	Minimum Frequency of Analysis
Selenium	mg/l	24-hr composite	annually
Silver	mg/l	24-hr composite	annually
Cyanide	mg/l	24-hr composite	annually
Nitrate	mg/l	24-hr composite	quarterly
Fluoride	mg/l	24-hr composite	annually
Radioactivity	pCi/l	-----	annually
Total identifiable chlorinated hydrocarbon	mg/l	grab	quarterly

II. Ground Water Monitoring

Two monitoring wells shall be established as underground receiving water sampling stations designated as follows:

(1) Control Well - No. 1N/20W - 602
(2) Monitoring Well - No. 1N/20W - 6R4

The following shall constitute the underground monitoring program:

Constituent	Units	Type of Sample	Minimum Frequency of Analysis
Total dissolved solids	mg/l	grab	annually
Total nitrogen	mg/l	grab	annually
Chloride	mg/l	grab	annually
Sulfate	mg/l	grab	annually

III. Hauling

In the event wastes are hauled to a different disposal site, the name and address of the hauler of the waste shall be reported in each monitoring report along with type(s) and quantities hauled during the reporting period and the location of the final point of disposal. If no wastes are hauled during the reporting period a statement to that effect shall be submitted.

General Provisions for Sampling and Analysis

All sampling, sample preservation, and analyses shall be performed in accordance with the latest edition of "Guidelines Establishing Test Procedures for Analysis of Pollutants", promulgated by the United States Environmental Protection Agency.

All chemical, bacteriological, and bioassay analyses shall be conducted at a laboratory certified for such analyses by the State Water Resources Control Board in accordance with Section 13176 of the Water Code.

IV. Reporting

A. The District shall file a report with this Board describing the purposes for which reclaimed water and/or sludge from this facility is used, estimating quantities used for each type of use, depicting on a map or drawing the area(s) of use, and stating the name and address of each user if other than the Reclaimer. This report shall be updated at least annually, and shall be included with the annual report due January 30th each year.

B. Each quarterly report shall include a statement that all reclaimed wastewater and sludge was used only as specified in the requirements during the quarter.

C. If no water or sludge was delivered for reuse during the quarter, the report shall so state.

General Provisions for Reporting

For every item where the requirements are not met, the Reclaimer shall submit a statement of the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time and submit a timetable for correction.

The Reclaimer shall maintain all sampling and analytical results, including strip charts; date, exact place, and time of sampling; data analyses were performed; analyst's name; analytical techniques used; and results of all analyses. Such records shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or when requested by the Board.

In reporting the monitoring data, the Reclaimer shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized to demonstrate compliance with waste discharge requirements and, where applicable, shall include results of receiving water observations.

Each monitoring report shall include records of operational problems, plant and equipment breakdowns, and diversions to emergency storage or disposal.

Monitoring reports shall be signed by:

a. In the case of corporations, by a principal executive officer at least of the level of vice-president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which discharge originates;

b. In the case of a partnership, by a general partner;

c. In the case of a sole proprietorship, by the proprietor;

d. In the case of municipal, state or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.

Each report shall contain the following completed declaration:

" I declare under penalty of perjury that the foregoing is true and correct.

Executed on the _____ day of _____ at _____.

_____(Signature)

_____(Title)"

Robert P. Ghirelli

ROBERT P. GHIRELLI, D.Env.
Executive Officer

Date: September 28, 1987