

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

ORDER NO. 94-161

WASTE DISCHARGE REQUIREMENTS
FOR THE
COUNTY OF SAN DIEGO
PINE VALLEY SANITATION DISTRICT
PINE VALLEY WATER POLLUTION CONTROL FACILITY
SAN DIEGO COUNTY

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

1. On July 28, 1959, this Regional Board adopted Resolution 59-R8, **A Resolution Prescribing Requirements for the Disposal of Waste from the Pine Valley Company by Irrigation of Pastureland in an Area of San Diego County Located in the SW1/4 - Section 25 - Township 15 South - Range 4 East - SBB&M.** Resolution 59-R8 established requirements for the disposal of up to 75,000 gallons per day of treated sewage via spray irrigation of pastureland. Resolution 59-R8 did not establish any numerical effluent limits.
2. On July 10, 1989, this Regional Board adopted Order No. 89-54, **Waste Discharge Requirements for the County of San Diego, Pine Valley Sanitation District, Pine Valley Water Pollution Control Facility, San Diego County.** Order No. 89-54, which superseded Resolution 59-R8, established new requirements for the discharge of up to 0.040 million gallons per day (MGD) of treated wastewater to percolation ponds located at the treatment facility.
3. On September 3, 1991 this Regional Board adopted Addendum No. 1 to Order No. 89-54, **An Addendum Modifying Waste Discharge Requirements for the County of San Diego, Pine Valley Water Pollution Control Facility, San Diego County.** Addendum No. 1 to Order No. 89-54 established a time schedule for the discharger to demonstrate compliance with the Basin Plan; and specified interim effluent limits based on past performance of the Pine Valley Water Pollution Control Facility and final effluent limits.
4. The discharger submitted effluent monitoring data that showed that the effluent soluble biochemical oxygen demand values ranged from 10 mg/l to 27 mg/l and that the influent soluble biochemical oxygen demand ranged from 161.0 mg/l to 580.8 mg/l with an average of 287.7 mg/l.
5. The Pine Valley Water Pollution Control Facility consists of an aerated lagoon with a 72 day detention time and eight percolation beds. The discharger reported that the long detention time causes a severe algae problem which contributes to high biochemical oxygen demand and suspended solids in the effluent.

6. On August 9, 1994, the discharger submitted a complete Report of Waste Discharge requesting that the discharge specifications for biochemical oxygen demand and total suspended solids established by Addendum No. 1 to Order No. 89-54 be changed to specifications for soluble biochemical oxygen demand and dissolved oxygen. The discharger reports that soluble biochemical oxygen demand and dissolved oxygen are better indicators for the treatment process at the Pine Valley Water Pollution Control Facility.
7. This Order establishes discharge specifications for soluble biochemical oxygen demand and dissolved oxygen for the Pine Valley Water Pollution Control Facility which will enable the discharger to achieve compliance with applicable State regulations, policies, and plans. In addition, the effluent limitation reflects the degree of treatment required to assure the protection of beneficial uses of groundwater.
8. As prescribed by Addendum No. 1 to Order No. 89-54, the discharger has submitted self-monitoring reports concerning the quality of the discharge. A summary of the data submitted from 1992 to 1994 is as follows:

| Constituent | Unit | Range | Mean |
|---|-------|--------------|-------|
| Biochemical Oxygen Demand (BOD ₅) @ 20°C | mg/l | 42.2 - 109.0 | 74.3 |
| Total Suspended Solids | mg/l | 58.0 - 269.5 | 140.0 |
| Volatile Suspended Solids | mg/l | 56.2 - 213.5 | 125.5 |
| pH | Units | 7.35 - 8.8 | 8.2 |
| Total Dissolved Solids | mg/l | 454 - 851 | 666 |
| Chloride | mg/l | 81 - 206 | 138.6 |
| Sulfate | mg/l | 50 - 212 | 102.6 |
| Nitrate (as NO ₃) | mg/l | 1.3 - 25.7 | 4.8 |
| Percent Sodium | % | 42.2 - 55.2 | 48.8 |
| Methylene Blue Active Substance | mg/l | 0.06 - 0.125 | .10 |

9. As prescribed by Addendum No. 1 to Order No. 89-54, the discharger has submitted self-monitoring reports concerning the quality of the groundwater. A summary of the data submitted from 1992 to 1994 is as follows:

| Constituent | Unit | Range | Mean |
|------------------------|------|-----------|------|
| Total Dissolved Solids | mg/l | 376 - 483 | 444 |

10. The Pine Valley Water Pollution Control Facility's disposal facilities are located in the NW 1/4, Section 36, T15S, R4E, SBB&M, in the Barrett Lake Hydrologic Subunit (911.30) of the Tijuana Hydrologic Unit.
11. The **Comprehensive Water Quality Control Plan Report, San Diego Region (9)** (Basin Plan) was adopted by this Regional Board on March 17, 1975; and subsequently approved by the State Water Resources Control Board (State Board). Subsequent revisions to the Basin Plan have also been adopted by the Regional Board and approved by the State Board.
12. The Basin Plan established the following beneficial uses for the surface waters of the Barrett Lake Hydrologic Subunit:
 - a. Municipal and domestic
 - b. Agricultural supply
 - c. Industrial service supply
 - d. Industrial process supply
 - e. Water contact recreation
 - f. Non-contact water recreation
 - g. Warm fresh-water habitat
 - h. Wildlife habitat
13. The Basin Plan established the following beneficial uses for the groundwaters of the Barrett Lake Hydrologic Subunit:
 - a. Municipal and domestic supply
 - b. Agricultural supply
14. The Basin Plan established the following water quality objectives for the Barrett Lake Hydrographic Subunit:

| Constituent | Surface Water | | Ground Water | |
|---------------------------------|---------------|-------|--------------|-------|
| Total Dissolved Solids | 500 | mg/l | 500 | mg/l |
| Chloride | 250 | mg/l | 250 | mg/l |
| Percent Sodium | 60 | % | 60 | % |
| Sulfate | 250 | mg/l | 250 | mg/l |
| Nitrate (as NO ₃) | 45 | mg/l | --- | |
| Nitrogen and Phosphorus | | --- | * | |
| Iron | 0.3 | mg/l | 0.3 | mg/l |
| Manganese | 0.05 | mg/l | 0.05 | mg/l |
| Methylene Blue Active Substance | 0.5 | mg/l | 0.5 | mg/l |
| Boron | 1.0 | mg/l | 1.0 | mg/l |
| Odor | None | | None | |
| Turbidity | 5 | NTU | 20 | NTU |
| Color | 15 | Units | 20 | Units |
| Fluoride | 1.0 | mg/l | 1.0 | mg/l |

Note: NTU = Nephelometric Turbidity Units

- * Concentrations of nitrogen and phosphorus, by themselves or in combination with other nutrients, shall be maintained at levels below those which stimulate algae and emergent plant growth. Threshold total phosphorus (P) concentrations shall not exceed 0.05 mg/l in any stream at the point where it enters any standing body of water, nor 0.025 mg/l in any standing body of water. A desired goal in order to prevent public nuisances in streams and other flowing waters appears to be 0.1 mg/l total P. These values are not to be exceeded more than 10 percent of the time unless studies of the specific water body in questions clearly show that water quality objective changes are permissible and changes are approved by the Regional Board. Analogous threshold values have not been set for nitrogen compounds; however, natural ratios of nitrogen to phosphorus are to be determined by surveillance and monitoring and upheld. If data are lacking, a ratio of N:P = 10:1 shall be used.

15. The Basin Plan contains the following prohibitions which are applicable to the discharge:

"Discharge of treated or untreated sewage or industrial wastewater, exclusive of cooling water or other waters which are chemically unchanged, to a watercourse, is prohibited except in cases where the quality of said discharge complies with the receiving body's water quality objectives.

"Discharging of treated or untreated sewage or industrial wastes in such manner or volume as to cause sustained surface flow or ponding on lands not owned or under the control of the discharger is prohibited except in cases defined in the

previous paragraph and in cases in which the responsibility for all downstream adverse effects is accepted by the discharger.

"The dumping or deposition of oil, garbage, trash or other solid municipal, industrial or agricultural waste directly into inland waters or watercourses or adjacent to the watercourses in any manner which may permit its being washed into the watercourse is prohibited."

16. As reported in Finding No. 8, the average concentration of total dissolved solids in the effluent from the Pine Valley Water Pollution Control Facility exceeds the Basin Plan groundwater object described in Finding No. 14. Taking into consideration the discharge volume, the existing groundwater quality, and the volume of rainfall recharge, any change to the groundwater quality caused by the discharge would be localized in nature and would not cause degradation to the overall groundwater quality in the basin and will be consistent with the Basin Plan.
17. The Pine Valley Water Pollution Control Facility is an existing facility and as such, is exempt from the provisions of the California Environmental Quality Act, in accordance with Title 14, California Code of Regulations, Chapter 3, Article 19 Section 15302.
18. The Regional Board has notified all interested parties of its intent to modify waste discharge requirements for the existing discharge.
19. The Regional Board in a public hearing, heard and considered all comments pertaining to the existing discharge.

IT IS HEREBY ORDERED, that, the County of San Diego, Pine Valley Sanitation District, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, shall comply with the following:

A. PROHIBITIONS

1. Discharges of wastes, including windblown spray and runoff of effluent applied for irrigation to lands which have not been specifically described in the report of waste discharge and for which waste discharge requirements are not in force are prohibited.
2. The discharge of any radiological, chemical or biological warfare agent, or high-level radiological waste is prohibited.
3. Storage, use and/or disposal of wastes in a manner that would result in ponding or surfacing of wastes on lands beyond the disposal area, as described in the findings of this Order, is prohibited.

4. The discharge of wastewater shall not:
 - a. Cause the occurrence of coliform or pathogenic organisms in water pumped from the basin;
 - b. Cause the occurrence of objectionable tastes and odors in water pumped from the basin;
 - c. Cause water pumped from the basin to foam;
 - d. Cause the presence of toxic materials in waters pumped from the basin;
 - e. Cause the pH of waters pumped from the basin to fall below 6.0 or rise above 9.0;
 - f. Cause this Regional Board's objectives for the ground or surface waters of the Barrett Lake Hydrologic Subunit as established in the Basin Plan, to be exceeded;
 - g. Cause odors, septicity, mosquitos or other vectors, weed growth or other nuisance conditions in any inland watercourse;
 - h. Cause a surface flow recognizable as sewage in any inland watercourse;
or
 - i. Cause a pollution, contamination or nuisance or adversely affect beneficial uses of the ground or surface waters of the Barrett Lake Hydrologic Subunit as established in the Basin Plan.
5. A 30-day average wastewater flowrate at the Pine Valley Water Pollution Control Facility in excess of 0.040 MGD is prohibited unless the discharge obtains revised waste discharge requirements for the proposed increased flowrate.
6. The discharge of waste in a manner other than as described in the findings of this Order is prohibited unless the discharger obtains revised waste discharge requirements that provide for the proposed change.

B. DISCHARGE SPECIFICATIONS

- The discharge of an effluent to the percolation ponds containing pollutants in excess of the following effluent limitations is prohibited:

| Constituent | Unit | 12-Month Average ¹ | Daily Maximum ² |
|---|-------|--|----------------------------|
| Biochemical Oxygen Demand ³ (BOD ₅ @ 20°C) | mg/l | 30 | 45 |
| pH | Units | Within the limits of 6.0 to 9.0 at all times | |
| Total Dissolved Solids | mg/l | 750 | --- |
| Chloride | mg/l | 250 | 300 |
| Sulfate | mg/l | 250 | 300 |
| Nitrate (as NO ₃) | mg/l | 30 | 45 |

¹ The 12-month average shall be the arithmetic mean, using the results of analysis of all samples collected during any consecutive 12-month period.

² The daily maximum shall be determined from the results of a single grab sample.

³ Analysis is to be performed after being filtered through a 0.45 micron membrane filter as specified in Monitoring and Reporting Program No. 94-161.

- All waste treatment and disposal facilities, including oxidation and percolation ponds, shall be protected against 100-year peak stream flows as defined by the San Diego County flood control agency.
- All waste treatment and disposal facilities, including oxidation and percolation ponds, shall be protected against erosion, overland runoff, and other impacts resulting from a 100-year frequency 20-hour storm.
- Collected screenings, sludges, other solids removed from liquid wastes, and filter backwash shall be disposed of in a manner approved by the Executive Officer.

C. PROVISIONS

- DUTY TO COMPLY

The discharger 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) the denial of a report of waste discharge in application for new or revised waste discharge requirements.

2. ENTRY AND INSPECTION

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. Enter upon the discharger's premises where a regulated facility of 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.

3. CHANGE OF OWNERSHIP

This Order is not transferrable to any person except after notice to the Executive Officer. The Regional Board may require modification or revocation and reissuance of this Order to change the name of the discharger and incorporate such other requirements as may be necessary under the California Water Code. The discharger shall submit notice to the Executive Officer of any proposed transfer of this Order's responsibility and coverage to a new discharger in writing at least 30 days in advance of any proposed transfer. The notice must include a written agreement between the existing and new discharger containing a specific date for the transfer of this Order's responsibility. This agreement shall include an acknowledgement that the existing discharger is liable for violations up to the transfer date and that the new discharger is liable from the transfer date on.

4. PERMIT REVISION

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

- a. Violation of any terms or conditions of this Order.
- b. Obtaining this Order by misrepresentation or failure to disclose fully all relevant facts; or

- c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.
- d. The filing of a request by the discharger 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 the Order.

5. ENDANGERMENT OF HEALTH AND ENVIRONMENT

The discharger shall report any noncompliance which may endanger health or the environment. Any such information shall be provided orally to the Executive Officer within 24 hours from the time the discharger becomes aware of the circumstances. A written submission shall also be provided within five days of the time the discharger 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. Any discharge of treated or untreated wastewater resulting from sewer line breaks or surfacing wastes in the leach fields must be reported to the Executive Officer within 24 hours.

6. TREATMENT FAILURE

In an enforcement action, it shall not be a defense for the discharger 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 system, the discharger shall, to the extent necessary to maintain compliance with this Order, terminate discharges to the failed system, until the system is restored or an alternative method of treatment is provided.

7. INCOMPLETE REPORTS

Where the discharger 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.

8. CIVIL MONETARY REMEDIES

The California Water Code provides that any person who intentionally or negligently violates any waste discharge requirements issued, reissued, or

amended by this Regional Board is subject to a civil monetary remedy of up to 20 dollars per gallon of waste discharged or, if a cleanup and abatement order is issued, up to 15,000 dollars per day of violation or some combination thereof.

9. CORRECTIVE ACTION

The discharger 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 and to expedite cleanup.

10. 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, as required under this Order, is guilty of a misdemeanor.

11. GENERAL REPORTING REQUIREMENT

The discharger 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 reissuance, or termination of this Order. The discharger shall also furnish to the Executive Officer, upon request, copies of records required to be kept by this Order.

12. 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:
 - (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."

13. PERMIT REPOSITORY

A copy of this Order shall be maintained at the Pine Valley Water Pollution Control Facility and shall be made available to operating personnel at all times.

14. REGIONAL BOARD ADDRESS

The discharger shall submit reports required under this Order, or other information required by the Executive Officer, to:

Executive Officer
California Regional Water Quality Control Board
San Diego Region
9771 Clairemont Mesa Blvd., Suite B
San Diego, California 92124-1331

D. NOTIFICATIONS

- 1. 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 discharger from liability under federal, state or local laws, nor create a vested right for the discharger to continue the waste discharge.

2. 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.
3. These requirements have not been officially reviewed the United States Environmental Protection Agency and are not issued pursuant to Section 402 of the Clean Water Act.
4. The requirements prescribed by this Order supersede the requirements prescribed in Order No. 89-54. This Order becomes effective on the date of adoption by the Regional Board.

I, Arthur L. Coe, 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 December 8, 1994.



ARTHUR L. COE
Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

MONITORING AND REPORTING PROGRAM NO. 94-161
FOR THE
COUNTY OF SAN DIEGO
PINE VALLEY SANITATION DISTRICT
PINE VALLEY WATER POLLUTION CONTROL FACILITY
SAN DIEGO COUNTY

A. MONITORING PROVISIONS

1. Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring points specified in this Order and, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water, or substance. Monitoring points shall not be changed without notification to and the approval of the 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 ± 5 percent from true discharge rates throughout the range of expected discharge volumes. Guidance in selection, installation, calibration and operation of acceptable flow measurement devices can be obtained from the following references:
 - a. "A Guide to Methods and Standards for the Measurement of Water Flow," U. S. Department of Commerce, National Bureau of Standards, NABS Special Publication 421, May 1975, 97 pp. (Available from the U. S. Government Printing Office, Washington, D. C. 90402. Order by SD Catalog No. C13.10:421.)
 - b. "Water Measurement Manual," U. S. Department of Interior, Bureau of Reclamation, Second Edition, Revised Reprint, 1974, 327 pp. (Available from the U. S. Government Printing Office, Washington D. C. 20402. Order by Catalog No. 127,19/2:W29/2, Stock No. S/N 24003-0027.)
 - c. "Flow Measurement in Open Channels and Closed Conduits," U. S. Department of Commerce, National Bureau of Standards, NABS Special Publication 484, October 1977, 982 pp. (Available in paper copy or microfiche from National Technical Information Service (NTIS) Springfield, VA 22151. Order by NTIS No. PB-293-535/5ST.)
 - d. "NPDES Compliance Sampling Manual," U. S. Environmental Protection Agency, Office of Water Enforcement. Publication MCD-51, 1977, 140 pp.

(Available from the General Services Administration (8FFS), Centralized Mailing List Services, Building 41, Denver Federal Center, Denver, CO 90225.)

3. Monitoring must be conducted according to United States Environmental Protection Agency test procedures approved under Title 40 Code of Federal Regulations (CFR), Part 136, "Guidelines Establishing Test Procedures for Analysis of Pollutants Under the Clean Water Act" as amended, unless other test procedures have been specified in this Order.
4. All analyses shall be performed in a laboratory certified to perform such analyses by the California Department of Health Services or a laboratory approved by the Executive Officer.
5. Monitoring results must be reported on discharge monitoring report forms approved by the Executive Officer.
6. If the discharger monitors any pollutants more frequently than reported by this Order, using test procedures approved under 40 (CFR), Part 136, or a specified in this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the discharger's monitoring report. The increased frequency of monitoring shall also be reported.
7. The discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, 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.
8. Records of monitoring information shall include:
 - 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. Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Executive Officer or in this Order.
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. All flow measurement devices shall be calibrated at least once per year, or more frequently, to ensure continued accuracy of the devices. Annually, the discharger shall submit to the Executive Officer a written statement signed by a registered professional engineer certifying that all flow measurement devices have been calibrated and will reliably achieve the accuracy required by Monitoring Provision A.2.

11. The discharger shall report all instances of noncompliance not reported under Reporting Requirement D.6 of this Order at the time monitoring reports are submitted. The reports shall contain the information listed in Provision C.6.
12. The monitoring reports shall be signed by an authorized person as required by Provision C.13.b.
13. 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.

B. EFFLUENT MONITORING

The following shall constitute the effluent monitoring program:

| Constituent | Unit | Sampling Frequency | Reporting Frequency |
|--|------|--------------------|---------------------|
| Flowrate | MGD | Daily | Quarterly |
| Biochemical Oxygen Demand* (5 Day @ 20°C) | mg/l | Quarterly | Quarterly |
| pH | mg/l | Quarterly | Quarterly |
| Total Dissolved Solids | mg/l | Quarterly | Quarterly |
| Chloride | mg/l | Quarterly | Quarterly |
| Sulfate | mg/l | Quarterly | Quarterly |
| Nitrate (as NO ₃) | mg/l | Quarterly | Quarterly |
| Iron | mg/l | Annually | Annually |
| Manganese | mg/l | Annually | Annually |
| Boron | mg/l | Annually | Annually |
| Fluoride | mg/l | Annually | Annually |
| Aluminum | mg/l | Annually | Annually |
| Arsenic | mg/l | Annually | Annually |
| Barium | mg/l | Annually | Annually |
| Cadmium | mg/l | Annually | Annually |
| Chromium | mg/l | Annually | Annually |
| Lead | mg/l | Annually | Annually |
| Mercury | mg/l | Annually | Annually |
| Selenium | mg/l | Annually | Annually |
| Silver | mg/l | Annually | Annually |

Note: MGD = million gallons per day
mg/l = milligrams per liter

* Prior to analysis, the sample is to be filtered through a 0.45-micron membrane filter and the filtrate analyzed by the procedure specified.

The samples shall be collected from the pond which has the lowest percolation rate, and at the location which is furthest from the inlet of the pond.

C. GROUNDWATER MONITORING

a. The following shall constitute the semiannual groundwater monitoring program for the Pine Valley Water Pollution Control Facility:

Representative samples of water from two wells downgradient and one upgradient from the percolation ponds, at a location approved by the Executive Officer, shall be collected and analyzed as indicated below:

| Constituent | Unit | Sample Type | Sampling Frequency | Reporting Frequency |
|------------------------|------|-------------|--------------------|---------------------|
| Total Dissolved Solids | mg/l | Grab | Semiannual* | Semiannual |

* One semiannual sample shall be taken during the first quarter (January-March) and the other semiannual sample shall be taken during the third quarter (July-September).

- b. The following shall constitute the annual groundwater monitoring program for the Pine Valley Water Pollution Control Facility:

Representative samples of water from a well downgradient from and near the percolation ponds, at a location approved by the Executive Officer, shall be collected and analyzed as indicated below

| Constituent | Unit | Sample Type | Sampling Frequency | Reporting Frequency |
|-------------------------------|---------|-------------|--------------------|---------------------|
| Bicarbonate | mg/l | Grab | Annually | Annually |
| Calcium | mg/l | Grab | Annually | Annually |
| Carbonate | mg/l | Grab | Annually | Annually |
| Chloride | mg/l | Grab | Annually | Annually |
| Copper | mg/l | Grab | Annually | Annually |
| Fluoride | mg/l | Grab | Annually | Annually |
| Hydroxide | mg/l | Grab | Annually | Annually |
| Iron | mg/l | Grab | Annually | Annually |
| Magnesium | mg/l | Grab | Annually | Annually |
| Manganese | mg/l | Grab | Annually | Annually |
| Methylene Blue | | | | |
| Active Substances | mg/l | Grab | Annually | Annually |
| Nitrate (as NO ₃) | mg/l | Grab | Annually | Annually |
| pH | Units | Grab | Annually | Annually |
| Sodium | % | Grab | Annually | Annually |
| Specific Conductivity | umho/cm | Grab | Annually | Annually |
| Sulfate | mg/l | Grab | Annually | Annually |
| Total Alkalinity | mg/l | Grab | Annually | Annually |
| Total Dissolved Solids | mg/l | Grab | Annually | Annually |
| Total Hardness | mg/l | Grab | Annually | Annually |
| Zinc | mg/l | Grab | Annually | Annually |

Note: umho/cm = micromho per centimeter

D. PERCOLATION PONDS

Dissolved oxygen concentrations shall be determined at least weekly on grab samples taken at the surface and bottom of each pond, not later than 8:00 a.m., and reported quarterly to the Regional Board. The samples shall be collected from the deepest portion of the percolation pond which has the lowest percolation rate.

E. SEWAGE SOLIDS

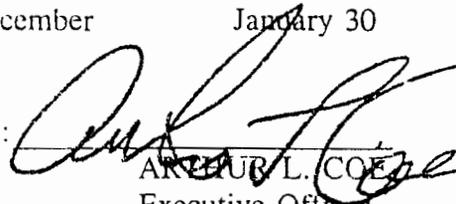
A log of the type, quantity, location and manner of disposal of solids removed in the course of sewage treatment shall be maintained and submitted quarterly.

F. REPORT SCHEDULE

Monitoring reports shall be submitted to the Executive Officer in accordance with the following schedule:

| Reporting Frequency | Report Period | Report Due |
|---------------------|------------------|------------|
| Quarterly | January-March | April 30 |
| | April-June | July 30 |
| | July-September | October 30 |
| | October-December | January 30 |
| Semiannually | January-June | July 30 |
| | July-December | January 30 |
| Annually | January-December | January 30 |

Ordered by:


ARTHUR L. COE
Executive Officer
December 8, 1994