

California Regional Water Quality Control Board
Santa Ana Region

STAFF REPORT

November 22, 1996

ITEM: 8

SUBJECT: Waste Discharge Requirements for Elsinore Valley Municipal Water District, Horsethief Canyon Ranch Wastewater Reclamation Facility, Riverside County, Order No. 96-63

DISCUSSION:

The Elsinore Valley Municipal Water District (EVMWD) operates the Horsethief Canyon Wastewater Reclamation Facility (Horsethief Plant) located at 13200 Shotgun Trail between Corona and Lake Elsinore. The Horsethief Plant was built to service an approximately 900 acre housing and commercial development known as Horsethief Canyon Ranch. The design capacity of the facility is 0.5 million gallons per day (MGD). The facility currently produces approximately 160,000 gallons per day of reclaimed water which is used for the irrigation of landscape within the development. During wet weather, all reclaimed water is discharged to the percolation ponds. The Horsethief Plant is regulated under Order No. 84-44. Order No. 84-44 is being updated to reflect changes in the Water Quality Control Plan (Basin Plan).

The Horsethief Plant and reclaimed water use area overlie the Lee Lake Groundwater Subbasin, the beneficial uses of which include municipal and domestic supply, agricultural supply, industrial service supply and industrial process supply.

The proposed limits in this order are based on the Water Quality Control Plan for the Santa Ana Basin and other applicable state and federal regulations and are necessary to protect the beneficial uses of the affected receiving waters.

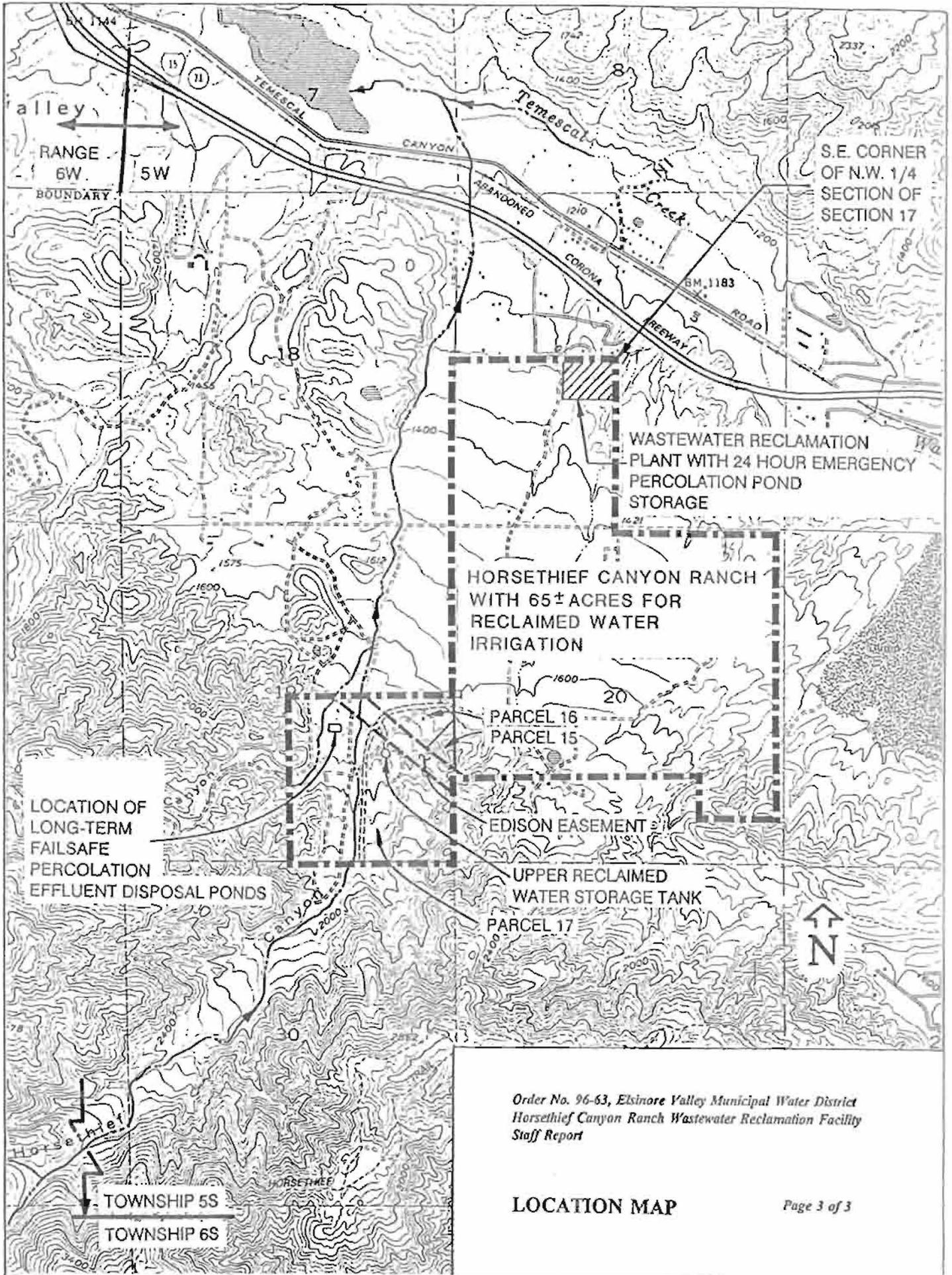
Based on past effluent analyses, EVMWD may have difficulty meeting the proposed effluent limits for total dissolved solids (TDS) because of water supply quality problems. This order specifies that the Regional Board will not initiate enforcement of TDS violations provided that EVMWD takes all reasonable steps to improve water supply quality and implements an acceptable program to offset TDS discharges in excess of permit limits. EVMWD is a participant in the watershed-wide TDS/TIN study. This order provides that participation in the TIN/TDS study will constitute an acceptable salt offset program for the expected duration of the study (three years).

RECOMMENDATION:

Adopt Order No. 96-63, as presented.

Comments were solicited from the following agencies:

State Water Resources Control Board, Office of the Chief Counsel - Ted Cobb
State Water Resources Control Board, Division of Water Quality - John Youngerman
State Department of Water Resources - Glendale
State Department of Health Services - San Diego
Riverside County Environmental Health Services - John Fanning
Riverside County Flood Control and Water Conservation District - Jason Christie
South Coast Air Quality Management District - James Lents
Lee Lake Water District
Temescal Water Company
City of Corona - City Manager



California Regional Water Quality Control Board
Santa Ana Region

ORDER NO. 96-63
Waste Discharge and Producer/User Reclamation Requirements
for
Elsinore Valley Municipal Water District
Horsethief Canyon Ranch Wastewater Reclamation Facility
Riverside County

The California Regional Water Quality Control Board, Santa Ana Region (hereinafter Board), finds that:

1. Elsinore Valley Municipal Water District (hereinafter discharger) presently operates the Horsethief Canyon Ranch Wastewater Reclamation Facility (Horsethief Plant) located at 13200 Shotgun Trail in the Corona area of Riverside County. The Horsethief Plant services a 900 acre housing and commercial development known as Horsethief Canyon Ranch. The treatment plant provides tertiary treated reclaimed water for the irrigation of landscape within the development. Treated effluent is also discharged to evaporation-percolation ponds located at the treatment plant. Discharges from the Horsethief Plant are currently regulated by waste discharge requirements, Order No. 84-44, adopted by the Board on May 11, 1984.
2. On May 16, 1996, the discharger submitted a report of waste discharge to update existing waste discharge requirements, Order No. 84-44 for the Horsethief Plant
3. The reclamation and disposal areas are located in portions of Sections 17, 19, 20, and 30, T5S, R5W, SBB&M.
4. The design capacity of the facility is 0.5 million gallons per day (MGD). The average daily discharge flow from the facility is currently 160,000 gallons per day. The wastewater treatment facilities include a primary grit channel, Parshall flume, Muffin-Monster comminutor or bar screen, oxidation ditch, secondary clarifiers, return activated sludge (RAS)/waste activated sludge (WAS) pump station, flocculation basin, tertiary filters, chlorine contact tank, effluent storage ponds, sludge drying beds and emergency standby generator and miscellaneous ancillary facilities.
5. It is necessary to revise waste discharge requirements for the Horsethief Plant to reflect changes in plans, policies and regulations adopted by the State and Regional Board's since Order No. 84-44 was adopted.
6. A revised Water Quality Control Plan (Basin Plan) became effective on January 24, 1995. The plan contains beneficial uses and water quality objectives for waters in the Santa Ana Region.

7. The wastewater treatment/reclamation plant and reclaimed water use area overlie the Lee Lake Groundwater Subbasin, the beneficial use of which include:
 - a. Municipal and domestic supply,
 - b. Agricultural supply,
 - c. Industrial service supply, and
 - d. Industrial process supply.
8. The requirements in this order are necessary to implement the Water Quality Control Plan.
9. It is necessary and appropriate to require control of individual mineral constituents in order to meet water quality objectives and protect beneficial uses.
10. The order also specifies a 850 mg/l total dissolved solids (TDS) limit which is based on the water quality objective for the Lee Lake Groundwater Subbasin.
11. Water supplied to the service area is a combination of State Project Water and Colorado River. Reduced deliveries of low TDS water from the State Water project have resulted in the deterioration of the TDS quality of the water supplied in the service area such that the discharger cannot consistently comply with the TDS limits in this order.
12. The project involves the continued operation of an existing facility and, as such, is exempt from the California Environmental Quality Act (Public Resources Code, Section 2100 et seq.) in accordance with Section 15301, Chapter 3, Title 14, California Code of Regulations.
13. The Regional Board has notified the discharger and other interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity to submit their written views and recommendations.
14. The Regional Board in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that the discharger, in order to meet the provisions contained in Division 7 of the California Water Code, shall comply with the following:

A. Discharge Specifications

- 1.a. The discharge of treated wastewater or the use of reclaimed water containing constituent concentrations in excess of the following limits is prohibited:

Constituent	Monthly Average Concentration Limit (mg/l)
Suspended Solids	20
Biochemical Oxygen Demand	20

- 1.b. **Mineral/Inorganic Limitations** The discharge of wastes or use of reclaimed water containing constituent concentrations in excess of the following is prohibited:

Constituent	12-Month Average Concentration Limit (mg/l)
Total Dissolved Solids ¹	850

- 1.c. **Water Supply Based TDS Limitation** The discharge of wastes containing an average total dissolved solids concentration (12-month average) which exceeds the average total dissolved solids concentration (12-month average) in the water supply by more than 250 mg/l is prohibited.

For Discharge Specification No. 1.b. and 1.c., whichever total dissolved solids limit that results in the lower concentration shall be controlling.

- The pH of the discharge shall be at all times between 6.5 and 8.5 pH units.
- The discharge of wastewater to any pond with less than one foot of freeboard is prohibited.
- The discharge of waste to property not owned or controlled by the discharger is prohibited.
- Compliance with the 12-month average limits specified in Discharge Specifications A.1.a. and A.1.b. shall be determined from the flow-weighted running average of all samples taken during the specified period.

¹ See Provisions D.8 and D.9.

B. Water Reclamation Requirements

1. All reclaimed wastewater used for greenbelt irrigation shall be, at all times, an adequately disinfected, oxidized, coagulated, clarified, filtered wastewater (or equivalent, as determined by the State Department of Health Services). The wastewater shall be 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. 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 (or equivalent as determined by the State Department of Health Services), so that the turbidity as determined by an approved laboratory method does not exceed 5 turbidity units more than 5 percent of the time during any 24 hour period.
2. The storage, delivery, or use of reclaimed water shall not individually or collectively, directly, or indirectly, result in a pollution or nuisance, or adversely affect water quality, as defined in Section 13050 of the California Water Code.
3. The bypass of untreated or partially treated wastewater from the treatment plant or any intermediate unit process necessary to achieve compliance with the criteria cited in B.1., above, to any point or use is prohibited.
4. For any future treatment plant modifications to increase reclaimed water capacity production, the discharger shall develop an engineering report conforming to Section 60323, Article 7 of the California Code of Regulations, Title 22, Division 4, Chapter 3. The engineering report shall be submitted to the State Department of Health Services, County Department of Health Services, and the Executive Officer of the Board.
5. An on-site supervisor responsible for the operation of the reclaimed wastewater system shall be designated by the discharger. The supervisor shall be responsible for the installation, operation and maintenance of the irrigation system, enforcing this order, prevention of potential hazards, maintenance of the distribution system plans in "as-built" form, and for the distribution of the reclaimed wastewater in accordance with this order.
6. The potable water supply shall not be used to supplement the reclaimed water supply except through an approved gap. In areas where the potable water supply is piped to premises where sewage is pumped, treated, or reclaimed (i.e., sewage treatment plants or pumping stations, golf courses, etc.) the potable water supply shall be protected at the property line in accordance with the State Department of Health Service's Regulations Relating to Cross-Connections.

7. The discharger shall inspect all sites proposed for the use of reclaimed water for irrigation to insure that those sites comply with all applicable rules and regulations for the application of reclaimed water.

C. Reporting Requirements

The discharger shall report any noncompliance which may endanger health or the environment. Any such information shall be provided orally to the Executive Officer or authorized representative 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.

D. Provisions

1. The discharger shall comply with Monitoring and Reporting Program No. 96-63 as issued by the Executive Officer. Revision of this monitoring and reporting program by the Executive Officer may be necessary to confirm that the discharger is in compliance with the requirements and provisions contained in this order. Revisions may be made at any time during the term of this order, and may include a reduction or an increase in the number of parameters to be monitored, the frequency of the monitoring or the number and size of samples collected.
2. Neither the treatment nor the discharge of wastes shall cause a nuisance or pollution as defined in Section 13050 of the California Water Code.
3. The discharger shall file with the Board a report of waste discharge at least 120 days before making any material change or proposed change in the character, location or volume of the discharge or in the method of disposal of the discharge, or any proposed change in ownership of the facility.
4. The discharger shall maintain a copy of this order at the site so that it is available at all times to site operating personnel.
5. The discharger shall insure that all facilities and systems of treatment, distribution, and control (and related appurtenances) which are installed or used to achieve compliance with conditions of this order are at all times properly operated and maintained. Proper operation and maintenance includes effective performance, adequate funding, adequate

operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of backup and auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this order.

6. The treatment and disposal facilities shall be protected from a 100-year frequency flood.
7. The Board, and other authorized representatives shall be allowed:
 - a. Entry upon premises where a regulated facility or activity is located or conducted, including reclaimed water treatment or discharge facilities, sludge use and disposal activities, or facilities where records must be kept under the conditions of this permit;
 - b. Access to copy any records that are kept under the conditions of this order;
 - c. To inspect any facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this order; and
 - d. To photograph, sample and monitor for the purpose of assuring compliance with this order.
8. The Regional Board will not initiate enforcement action for violations of the total dissolved solids (TDS) limit specified in Discharge Specifications A.1.b., provided that:
 - (i) The discharger demonstrates to the satisfaction of the Regional Board's Executive Officer that:
 - (a) the violation is due to the TDS quality of water supply sources utilized in the discharger service area; and
 - (b) that all reasonable steps, as agreed upon by the Regional Board's Executive Officer, have been taken to insure available water supplies with the lowest concentration of TDS quality supplies available are obtained and utilized in the discharger's service area; and
 - (ii) The discharger develops and implements, with the approval of the Regional Board's Executive Officer, a plan to mitigate the effects of the violation on the affected receiving waters.
9. The Regional Board will not initiate enforcement action for violation of the TDS limit specified in Discharge Specifications A.1.b. and A.1.c., provided that:

- (i) The discharger demonstrates to the satisfaction of the Regional Board's Executive Officer that:
 - (a) The TDS violation(s) are due solely to chemical additions in the treatment process needed to meet waste discharge requirements; and
 - (b) The discharger has taken all steps to optimize chemical additions so as to minimize the TDS increases;
 - (ii) For violations of the TDS limit in Discharge Specifications A.1.b., the discharger develops and implements, with the approval of the Regional Board's Executive Officer, a plan to mitigate the effects of the violation on the affected receiving waters.
10. Collected screenings, sludge, and other solids removed from liquid wastes shall be disposed of in a manner approved by the Executive Officer of the Regional Board.
 11. 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.
 12. The discharger shall take all reasonable steps to minimize any adverse impact to receiving waters resulting from noncompliance with any requirement specified in this order, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.
 13. Order No. 84-44 is hereby rescinded.

I, Gerard J. Thibeault, 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, Santa Ana Region, on November 22, 1996.



Gerard J. Thibeault
Executive Officer

California Regional Water Quality Control Board
Santa Ana Region

Monitoring and Reporting Program No. 96-63
for
Elsinore Valley Municipal Water District
Horsethief Canyon Ranch Wastewater Reclamation Facility
Riverside County

A. General Monitoring Provisions

1. 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 methods uses; and
 - f. The results of such analyses.
2. All monitoring instruments and devices used by the discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to insure their continued accuracy.
3. The flow measurement shall be calibrated at least once per year or more frequently to insure continued accuracy
4. All analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services or at a laboratory approved by the Executive Officer of the Regional Board.

B. Effluent Monitoring

1. A sampling station shall be established for each point(s) of discharge and shall be located where representative samples of the effluent can be obtained.

2. The following shall constitute the effluent monitoring program:

Constituent	Units	Type of Sample	Minimum Frequency of Sample
Flow	MGD	Recorder/Totalizer	Continuous
Coliform (reclaimed water only)	MPN 100 ml	Grab ¹	Daily ²
Biochemical Oxygen Demand	mg/l	Composite	Weekly
Suspended Solids	mg/l	Composite	Weekly
Nitrate	mg/l	Composite	Monthly
Total Dissolved Solids	mg/l	Composite	Monthly
Total Hardness	mg/l	Composite	Monthly
Chloride	mg/l	Composite	Annually
Sodium	mg/l	Composite	Annually
Sulfate	mg/l	Composite	Annually

3. Weekly samples shall be collected on representative days of the week.
4. Monthly samples shall be collected on the first working day of each month.
5. Annual samples shall be collected on the first working day of January.
6. The freeboard in each pond shall be measured every Friday of each week and recorded in a permanent log.
7. A permanent log of all wastes hauled from the facility for final disposal elsewhere shall be maintained. This should include volume, type, and final disposal site of each waste.
8. The total quantity and date of reclaimed water usage each day shall be recorded in a permanent log.

C. Water Supply Monitoring

At least once annually, in September, a sample of the water supply to the area sewered to treatment plant shall be collected and shall be analyzed for total dissolved solids and electrical conductivity.

¹ Samples shall be collected during peak flows.
² Whenever reclaimed water is being supplied to any user.

D. Reclamation Monitoring and Reporting

The average daily flow of reclaimed water delivered to each user shall be recorded and reported on a monthly basis.

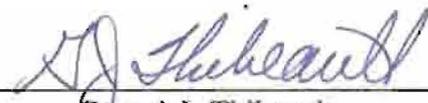
E. Reporting

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

REPORT	REPORTING FREQUENCY	REPORT DUE DATE
Daily and Weekly Effluent Analysis	Monthly	By the 30th day of the month following the monitoring period
Monthly Effluent Analysis	Monthly	"
Bio-Solids Disposal	Monthly	"
Annual Water Supply Parameters	Annually	"

2. The discharger shall tabulate the monitoring data to clearly illustrate compliance and/or noncompliance with the permit requirements.
3. For every item where the requirements are not met, the discharger 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.
4. The annual report for water supply parameters shall include a roster of plant personnel, including job titles, duties, and level of state certification for each individual.
5. Discharge monitoring data shall be submitted in a format acceptable to the Board and EPA. Specific reporting format may include preprinted forms and/or electronic media. Unless otherwise specified, discharge flows shall be reported in terms of daily average and monthly average discharge flows. The results of all monitoring required by this order shall be reported to the Board, and shall be submitted in such a format as to allow direct comparison with the limitations and requirements of this order.
6. All reports shall be signed by a responsible officer or duly authorized representative of the discharger and shall be submitted under penalty of perjury.

Ordered by _____



Gerard J. Thibeault
Executive Officer

November 22, 1996