CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. 98-214

WASTE DISCHARGE REQUIREMENTS
FOR
POPLAR COMMUNITY SERVICES DISTRICT
WASTEWATER TREATMENT FACILITY
TULARE COUNTY

The California Regional Water Quality Control Board, Central Valley Region, (hereafter Board) finds that:

1. Poplar Community Services District (hereafter Discharger) owns and operates a wastewater treatment facility. The facility consists of headworks, two lined aerated ponds, and two lined storage ponds. Effluent from the storage ponds is recycled on 41 acres of Discharger owned land (APN 300-110-05). Currently, the 41 acres has a grape vineyard and nursery grape stock.

2. The facility is currently governed by Waste Discharge Requirements Order No. 97-208 which has a flow limit of 0.34 million gallons per day (mgd). Order No. 97-208 required the Discharger to submit an irrigation management plan with nutrient and hydraulic loading calculations. The irrigation management plan concluded that when the recycling area is a grape vineyard, the wastewater treatment facility has a capacity of only 0.17 mgd.

3. On 8 June 1998, the Discharger submitted a Report of Waste Discharge for proposed changes in the type of crop grown at the wastewater recycling area. The Discharger plans to grow sudan grass in summer and grains in winter. According to the Discharger's hydraulic and nutrient balance calculations submitted along with the Report of Waste Discharge, the changes in the cropping pattern will result in a disposal capacity at the wastewater treatment facility of 0.31 mgd.

4. Order No. 97-208 required the Discharger to meet effluent limits at the end of the treatment ponds, prior to discharge to the storage ponds. The point of compliance is revised in this Order. Since the storage ponds will provide additional treatment of wastewater, the Discharger is required to meet the effluent limits only at the end of the storage ponds, prior to application on the 41 acres. As the storage ponds are lined, the change in the point of compliance will not result in any threat to groundwater.

5. The aeration and storage ponds have not been cleaned of sludge since the initial operation of the treatment plant.

6. Soils in the area consist mainly of Foster fine sandy loam and Tujunga sand with high permeability. Two soil borings drilled on site indicate that the upper 12 to 17 feet consist of sandy silt. The logs also indicate that almost the entire upper 40 feet is comprised of relatively coarse grained sediment.

7. The facility is in Section 3, T22S, R26E, MDB&M, as shown in Attachment A, which is part of this Order by reference. Surface water drainage is to Mitchell Slough, a Valley Floor Water. The site lies within the Tule Delta Hydrologic Area (No. 558.20) in the South Valley Floor Hydrologic Unit, as depicted on interagency hydrologic maps prepared by the Department of Water Resources in August 1986.

8. The *Water Quality Control Plan for the Tulare Lake Basin, Second Edition,* (hereafter Basin Plan) designates beneficial uses and contains water quality objectives for all waters of the Basin. These requirements implement the Basin Plan.

9. The beneficial uses of Valley Floor Waters, as identified in the Basin Plan, include industrial and agricultural supply, industrial process supply, water contact and non-contact water recreation, warm fresh water habitat, wildlife habitat, preservation of rare and endangered species, and groundwater recharge.

10. Based on the information obtained from the *"Lines of Equal Elevation of Water in Wells in Unconfined Aquifer,"* published by Department of Water Resources in Spring 1997, the depth of groundwater in the region is 110 feet below ground surface. The beneficial uses of groundwater in the area are domestic, industrial, and agricultural supply.

11. The average annual rainfall in the area is 11 inches and annual average pan evaporation rate is 60 inches.

12. The California Department of Health Services has established statewide criteria in Title 22, California Code of Regulations (CCR), Section 60301, et seq., (hereafter Title 22) for the use of recycled water and has developed guidelines for specific uses.

13. The permitted discharge is consistent with the antidegradation provisions of State Water Resources Control Board Resolution 68-16. There is no evidence to indicate the increase in pollutants will cause significant groundwater degradation.

14. The action to revise waste discharge requirements for this existing facility is exempt from the provisions of the California Environmental Quality Act (CEQA) in accordance with Title 14, CCR, Section 15301.

15. The Board has notified the Discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for this discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

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

IT IS HEREBY ORDERED that Order No. 97-208 is rescinded and Poplar Community Services District, its agents, successors, and assigns, 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. Discharge Prohibitions

1. Discharge of waste to surface waters or surface water drainage courses is prohibited.

2. Bypass or overflow of untreated or partially treated waste is prohibited except as allowed in Provision E.2 of Standard Provisions and Reporting Requirements.

3. Discharge of waste classified as 'hazardous,' as defined in Section 2521 (a) of Title 23, CCR, Section 2510, et seq., or 'designated,' as defined in Section 13173 of the California Water Code, is prohibited.

B. Discharge Specifications

1. The monthly average discharge shall not exceed 0.31 mgd.

2. Objectionable odors originating at this facility shall not be perceivable beyond the limits of the wastewater treatment and disposal area.

3. As a means of discerning compliance with Discharge Specification B.2, the dissolved oxygen content in the upper zone (1 foot) of wastewater in the ponds shall not be less than 1.0 mg/l.

4. The facility shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency.

5. The maximum conductivity (specific electrical conductance at 25° C, also EC) of the discharge shall not exceed the source water EC plus 500 µmhos/cm.

6. Effluent from the storage ponds shall not exceed the following limits:

Constituent	Units	Monthly Average	Daily Maximum
BOD_5[1]	mg/l	40	80
Settleable Solids	ml/l	0.2	0.5

[1] Five day, 20° Celsius biochemical oxygen demand

7. Ponds shall not have a pH less than 6.5 or greater than 8.5.

8. Ponds shall be managed to prevent breeding of mosquitoes. In particular,

   a. An erosion control program should assure that small coves and irregularities are not created around the perimeter of the water surface.

   b. Weeds shall be minimized through control of water depth, harvesting, and herbicides.

   c. Dead algae, vegetation, and debris shall not accumulate on the water surface.

9. Public contact with wastewater shall be precluded through such means as fences, signs, or other acceptable alternatives.

10. The ponds, in conjunction with the reclamation area, shall have sufficient capacity to accommodate allowable wastewater flow and design seasonal precipitation and ancillary inflow and infiltration. Design seasonal precipitation shall be based on total annual precipitation using a return period of 100 years, distributed monthly in accordance with historical rainfall patterns. Freeboard shall never be less than two feet (measured vertically to the lowest point of potential overflow).

11. On or about 1 October of each year, available pond storage capacity shall at least equal the volume necessary to comply with Discharge Specification B.10.

C. Recycled Water Specifications

1. The recycling of wastewater shall be limited to furrow or flood irrigation of fodder, fiber, and seed crops for non-human consumption.

2. Recycled water shall remain within the designated application area at all times.

3. Recycled water used for irrigation shall be managed to minimize erosion.

4. The Discharger shall maintain the following setback distances from areas irrigated with recycled water:

Setback Distance (feet)	To
25	Property line
30	Public roads
50	Drainage courses
100	Irrigation wells
150	Domestic wells

5. The perimeter of the application area shall be graded to prevent ponding along public roads or other public areas.

6. Application of recycled water to the application area shall be at reasonable rates considering the crops, soil, climate, and irrigation management system.

7. Areas irrigated with recycled water shall be managed to prevent breeding of mosquitoes. More specifically:

   a. All applied irrigation water must infiltrate completely within a 48-hour period.

   b. Ditches must be maintained free of emergent, marginal, and floating vegetation.

   c. Low-pressure and unpressurised pipelines and ditches accessible to mosquitoes shall not be used to store water.

8. All areas where recycled water is to be used shall be posted with conspicuous signs that present the following wording in size that can be clearly read by the public:

"RECYCLED WATER - DO NOT DRINK - WASH THOROUGHLY WITH SOAP AND DRINKING WATER IF CONTACT OCCURS." Each sign shall display the international symbol comparable to the one shown on Attachment B.

9. No physical connection shall exist between recycled water piping and any domestic water supply well, or between recycled water piping and any irrigation well that does not have an air gap or reduced pressure principle device.

10. Recycled water shall be managed to minimize contact with workers.

D. Sludge Disposal

1. Collected screenings, sludges, and other solids removed from liquid wastes shall be disposed of in a manner approved by the Executive Officer and consistent with *Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste,* as set forth in Title 27, CCR, Division 2, Subdivision 1, Section 20005, et seq.

2. Any proposed change in sludge use or disposal practice shall be reported to the Executive Officer and USEPA Regional Administrator **at least 90 days in advance** of the change.

3. Use and disposal of sewage sludge shall comply with existing federal and state laws and regulations, including permitting requirements and technical standards included in 40 CFR 503.

   If the State Water Resources Control Board and the Regional Water Quality Control Boards assume primacy to implement regulations contained in 40 CFR 503, this Order may be reopened to incorporate time schedules and technical standards. The Discharger is encouraged to comply with the standards and time schedules contained in 40 CFR 503 whether or not they have been incorporated into this Order.

E. Groundwater Limitations

The discharge, in combination with other sources, shall not cause underlying groundwater to contain waste constituents in concentrations statistically greater than background water quality, except conductivity. Regarding conductivity, the Discharger shall not cause underlying groundwater to exceed an incremental increase in conductivity greater than 30 µmhos/cm over any five-year period.

F. Provisions

1. The Discharger shall comply with Monitoring and Reporting Program No. 98-214, which is part of this Order, and any revisions thereto as ordered by the Executive Officer.

2. The Discharger shall comply with the "Standard Provisions and Reporting Requirements for Waste Discharge Requirements," dated 1 March 1991, which are attached hereto and by reference a part of this Order. This attachment and its individual paragraphs are commonly referenced as "Standard Provision(s)."

3. The Discharger must comply with all conditions of this Order, including timely submittal of technical and monitoring reports as directed by the Executive Officer. Violations may result in enforcement action, including Regional Board or court orders requiring corrective action or imposing civil monetary liability, or in revision or rescission of this Order.

4. A copy of this Order shall be kept at the discharge facility for reference by wastewater treatment plant operating personnel. Key operating personnel shall be familiar with its contents.

5. The Board will review this Order periodically and will revise requirements when necessary.

I, GARY M. CARLTON, 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, Central Valley Region, on 23 October 1998.

GARY M. CARLTON, Executive Officer

SH:sh/fmc:10/23/98

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. 98-214

FOR
POPLAR COMMUNITY SERVICES DISTRICT
WASTEWATER TREATMENT FACILITY
TULARE COUNTY

Specific sample station locations shall be established with concurrence of the Board's staff, and a description of the stations shall be submitted to the Board and attached to this Program.

INFLUENT MONITORING

Influent samples shall be collected at the inlet of the headworks and approximately the same time as an effluent sample. Influent monitoring shall include the following:

Constituent	Units	Measurement	Frequency
Flow	mgd	Metered	Continuously
BOD_5[1]	mg/l	Grab	Quarterly

[1] Five day, 20° Celsius biochemical oxygen demand

EFFLUENT MONITORING

Effluent samples shall be collected at the outlet of the storage ponds prior to discharge to the wastewater recycling area. Effluent samples shall be representative of the volume and nature of the discharge. Time of collection of a grab sample shall be recorded. Effluent monitoring shall include the following:

Constituent	Units	Measurement	Frequency
Settleable Solids	ml/l	Grab	3/week
pH	pH Units	Grab	Weekly
BOD_5	mg/l	Grab	Weekly

Constituent	Units	Measurement	Frequency
EC	µmhos/cm	Grab	Weekly
Total Nitrogen	mg/l	Grab	Monthly

POND MONITORING

The freeboard shall be monitored on all storage ponds to the nearest tenth of a foot. Monitoring of storage ponds shall include at least the following:

Constituent	Units	Type of Sample	Frequency
Freeboard	feet	Observation	Weekly 2'
Dissolved Oxygen[1]	mg/l	Grab	3/week 1,0

[1] Samples shall be collected from opposite of the inlet to each pond and analyzed for dissolved oxygen. Samples shall be collected between 0800 and 0900 hours.

A permanent marker shall be placed in each pond with calibration including the water level at design capacity and available operational freeboard.

WATER SUPPLY MONITORING

A sampling station shall be established where a representative sample of the water supply can be obtained. Water supply monitoring shall include at least the following:

Constituent	Units	Type of Sample	Frequency
EC[1]	µmhos/cm	Grab	Annually max 850 µmhos/cm

[1] If the source water is from more than one source, the EC shall be reported as a weighted average and include copies of supporting calculations.

GROUNDWATER MONITORING

Samples shall be taken from the existing groundwater monitoring system. Groundwater monitoring shall include at least the following:

Constituent	Units	Type of Sample	Frequency
Depth	feet	Measured	Quarterly
EC	µmhos/cm	Grab	Quarterly
pH	pH Units	Grab	Quarterly
Nitrates	mg/l	Grab	Quarterly
Standard Minerals[1]	mg/l	Grab	Quarterly

[1] Standard Minerals shall include boron, calcium, magnesium, sodium, potassium, alkalinity, sulfate, and ammonia, and shall include a verification that the analysis is complete (i.e., cation/anion balance).

Following each sampling event, the Discharger shall determine whether there is statistically significant increase over water quality protection standards for each parameter and constituent analyzed and provide the Board with the results of the determination and a detailed description of the statistical methodology employed. If the Discharger or the Board finds there is a statistically significant increase in indicator parameters or waste constituents over the water quality protection standards, the Discharger shall notify the Board, or acknowledge the Board's findings, and submit, within 90 days, a technical report with a plan and time schedule for implementing a verification monitoring program. The verification monitoring program must be designed to verify that water quality protection standards have been exceeded.

If the Discharger, through a verification monitoring program, or the Board verifies that water quality protection standards have been exceeded at or beyond the POC's, the Discharger shall notify the Board, or acknowledge the Board's findings, and submit a technical report within 90 days. The report must contain a plan and time schedule for implementing a corrective action program designed to achieve compliance with water quality standards.

SLUDGE MONITORING

A composite sample of sludge shall be collected whenever sludge is removed from the aerated lagoon and, in accordance with EPA's *POTW Sludge Sampling and Analysis Guidance Document*, August 1989, tested for the following metals:

Arsenic	Cadmium	Chromium	Copper	Lead
Mercury	Nickel	Selenium	Zinc	

Sampling records shall be retained for a minimum of five years. A log shall be kept of sludge quantities generated and of handling and disposal activities.

REPORTING

Daily, weekly, and monthly monitoring data shall be reported in monthly monitoring reports. Monthly monitoring reports shall be submitted to the Board by the **20th day of the following month.** Quarterly monitoring data shall be submitted in quarterly monitoring reports. The quarterly monitoring reports shall be submitted by the **20th day of the month following each calendar quarter.** Annual monitoring reports shall be submitted by **20 January of each year.**

In reporting the monitoring data, the Discharger shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized in such a manner that illustrates clearly whether the Discharger complies with waste discharge requirements.

If the Discharger monitors any pollutant at the locations designated herein more frequently than is required by this Order, the results of such monitoring shall be included in the discharge monitoring report.

The Discharger may also be requested to submit an annual report to the Board with tabular and graphical summaries of the monitoring data obtained during the previous year. Any such request shall be made in writing. The report shall discuss the corrective actions taken and planned to bring the discharge into full compliance with the waste discharge requirements.

By **20 January of each year,** the Discharger shall submit a written report to the Executive Officer containing the following:

a. The names, certificate grades, and general responsibilities of all persons in charge of wastewater treatment and disposal.

b. The names and telephone numbers of persons to contact regarding wastewater disposal for emergency and routine situations.

c. A statement certifying when the flow meter and other monitoring instruments and devices were last calibrated, including identification of who performed the calibration (Standard Provision C.4).

d. A statement certifying whether the current operation and maintenance manual, and contingency plan, reflect the wastewater treatment plant as currently constructed and operated, and the dates when these documents were last revised and last reviewed for adequacy.

e. The total quantity of sludge disposed of during the previous year and ultimate disposal site(s).

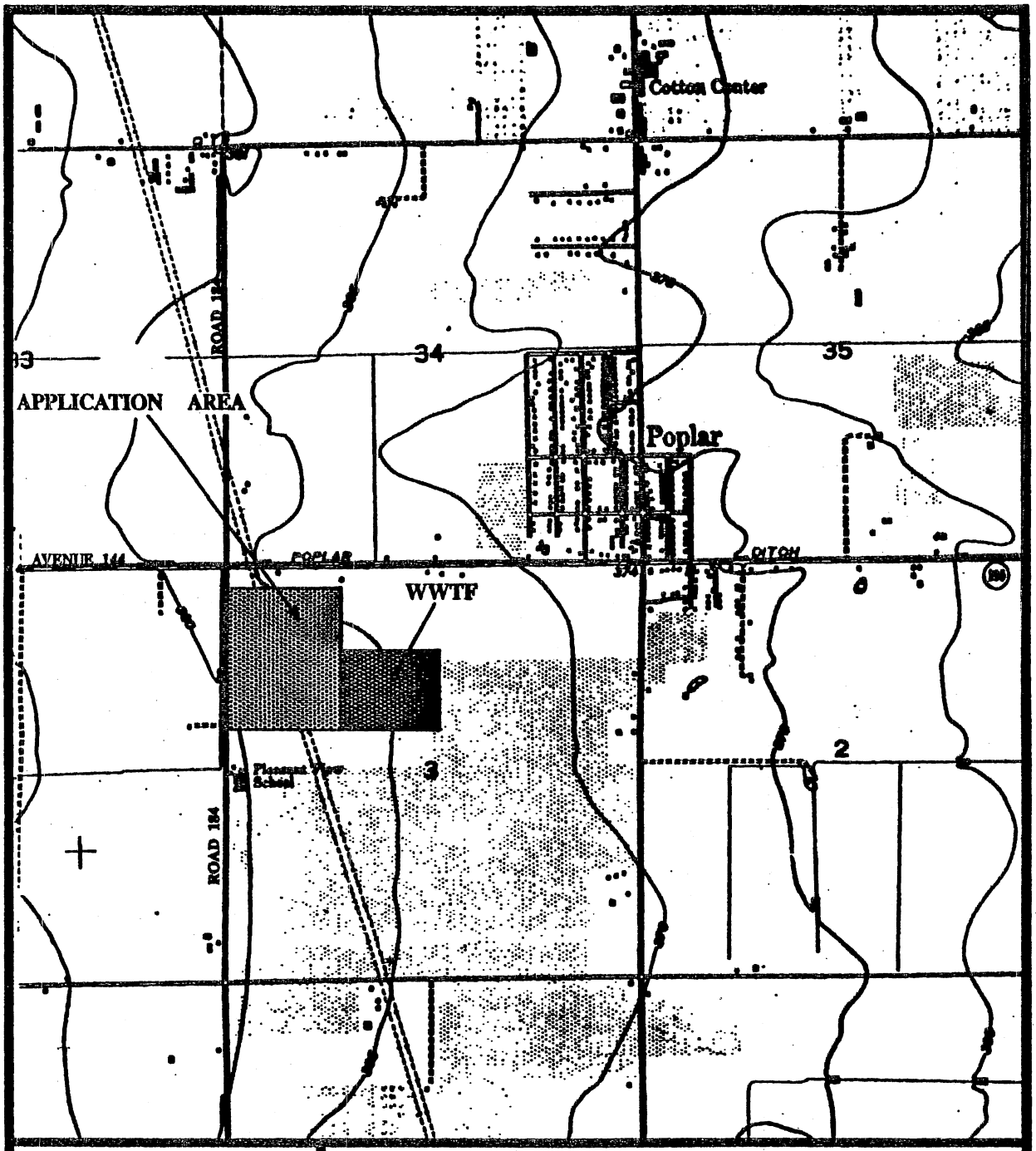
All reports submitted in response to this Order shall comply with the signatory requirements in Standard Provision B.3.

The Discharger shall implement the above monitoring program on the first day of the month following adoption of this Order.

Ordered by: _____
GARY M. CARLTON, Executive Officer

23 October 1998
(Date)

SH:sh/fmc:10/23/98



ATTACHMENT A
Vicinity Map

POPLAR COMMUNITY SERVICES DISTRICT
WASTEWATER TREATMENT FACILITY
TULARE COUNTY

Section 3, T22S, R26E, MDB&M
Woodville, 7 1/2' USGS Quad, 1969
Not to Scale

ATTACHMENT B

INFORMATION SHEET

POPLAR COMMUNITY SERVICES DISTRICT
WASTEWATER TREATMENT FACILITY
TULARE COUNTY

Poplar Community Services District operates a wastewater treatment facility consisting of headworks, two lined aerated ponds, and two lined storage ponds. Effluent from the storage ponds is used for irrigation of 41 acres of Discharger owned grape vineyard and grape nursery stock.

Order No. 97-208 required the Discharger to submit an irrigation management plan with calculations on hydraulic and nutrient loading. The report concluded that the WWTF has a disposal capacity of only 0.17 million gallons per day when the wastewater application area is grown with grapes. The Discharger plans to change the crops grown in the recycling area to increase hydraulic and nutrient loading capacity.

On 8 June 1998, the Discharger submitted a Report of Waste Discharge for proposed changes in the type of crop grown at the wastewater recycling area. The Discharger plans to grow sudan grass in summer and grains in winter. According to the Discharger's hydraulic and nutrient balance calculations submitted along with the Report of Waste Discharge, the changes in the cropping pattern will result in a disposal capacity at the wastewater treatment facility of 0.31 mgd.

Order No. 97-208 required the Discharger to meet effluent limits at the end of the treatment ponds, prior to discharge to the storage ponds. The point of compliance has been revised in this Order. Since the storage ponds will provide additional treatment of wastewater, the Discharger is required to meet the effluent limits only at the end of the storage ponds, prior to application on the 41 acres. As the storage ponds are lined, the change in the point of compliance will not result in any threat to groundwater.

Surface water drainage from the facility is to Mitchell Slough, a Valley Floor Water. The beneficial uses of the Valley Floor Waters include industrial and agricultural supply, industrial process supply, water contact and non-contact water recreation, warm fresh water habitat, wildlife habitat, preservation of rare and endangered species, and groundwater recharge.

Based on the information obtained from the *"Lines of Equal Elevation of Water in Wells in Unconfined Aquifer,"* published by Department of Water Resources in Spring 1997, the depth of groundwater in the region is 110 feet below ground surface. The beneficial uses of groundwater in the area are domestic, industrial, and agricultural supply.

Soils in the area consist mainly of Foster fine sandy loam and Tujunga sand with high permeability. Two soil borings drilled on site indicate the upper 12 to 17 feet consist of sandy silt. The logs also indicate that almost the entire upper 40 feet sampled is comprised of relatively coarse grained sediment.

The average annual rainfall in the area is 11 inches and annual average evaporation rate is 60 inches.

This Order contains discharge specifications to limit nuisances and recycled water specifications to prevent health hazards.

This is an existing facility and the action to revise is exempt from the provisions of the California Environmental Quality Act (CEQA) in accordance with Title 14, CCR, Section 15301.

SH:sh/fmc:10/23/98