

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION
1102-A Laurel Lane
San Luis Obispo, California 93401**

ORDER NO. 91-14

WASTE DISCHARGE AND WATER RECLAMATION REQUIREMENTS
FOR
MONTEREY COUNTY SERVICE AREA NO. 72,
LAS PALMAS RANCH RESIDENTIAL DEVELOPMENT,
MONTEREY COUNTY

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

1. Las Palmas Ranch Partnership, Ltd., filed a Report of Waste Discharge on June 6, 1990, in accordance with Section 13260 of the California Water Code. The report was filed on behalf of Las Palmas Ranch Residential Development for authorization to increase discharge of treated domestic wastewater within the Salinas River Basin.
2. Monterey County Service Area No. 72 (hereafter Discharger), operates wastewater collection, treatment, and disposal facilities located approximately 3 miles south of the City of Salinas, as shown on Attachments "A" and "B" of this Order.
3. Order No. 86-161 limited flow to 120,000 gallons-per-day for the first phase of the development. The Discharger is completing the second phase of its development. Therefore, the Discharger requests revision of Waste Discharge Requirements to allow a monthly average daily flow of 195,000 gallons-per-day.
4. The existing 90,000 gallons-per-day treatment facility consists of screening, aeration, clarification, flocculation, filtration, and chlorination. Treated wastewater is discharged to a 33.3 acre-foot reclamation storage reservoir, then spray irrigated onto irrigation areas.
5. To accommodate the increase in flow, the Discharger proposes adding a second wastewater treatment plant (WWTP), a second reclamation storage reservoir and additional spray irrigation areas. The second WWTP will consist of rotary screening, flow equalization, primary clarification, trickling filtration, chemical addition, rapid mixing, secondary clarification, denitrification, filtration, and disinfection. The second WWTP has a rated hydraulic capacity of 145,000 gallons-per-day. A 38 acre-foot reservoir is provided to store the additional flows.
6. The spray irrigation areas have been sized for a average daily flow of 195,000 gallons-per-day, and comprises an area of approximately 41 acres. The spray disposal areas are located throughout the Las Palmas Ranch development as shown on Attachment "A".
7. The spray irrigation area is located primarily on alluvial soils which consist of sand, gravel, and clay. There are perched ground water zones beneath these disposal areas. Mineral analysis of shallow ground water in the vicinity of the proposed treatment plant site is as shown:

<u>Constituent</u>	<u>Level Found, 1984</u>
Total Dissolved Solids	867
Sodium	97
Chloride	92
Nitrate (as N)	6

Item No. 9 Attachment No. 3
December 1, 2006 Meeting
Las Palmas Ranch Development

8. The Salinas River is located northeast of the development and flows in a northwesterly direction to the Pacific Ocean.
9. The Water Quality Control Plan, Central Coastal Basin, (Basin Plan), was adopted by the Board on March 14, 1975, and approved by the State Water Resources Control Board on March 20, 1975. The Basin Plan incorporates statewide plans and policies by reference and contains a strategy for protecting beneficial uses of State waters.
10. Present and anticipated beneficial uses of groundwater in the vicinity of the discharge include:
 - a. Domestic water supply, and
 - b. Agricultural water supply.
11. Present and anticipated beneficial uses of surface waters that could be affected by the discharge include:
 - a. Water Contact recreation;
 - b. Non-contact water recreation;
 - c. Warm fresh water habitat;
 - d. Wildlife Habitat; and,
 - e. Fish migration.
12. State Department of Health Services' criteria certified for use of reclaimed water is in Title 22, Chapter 3, of the California Code of Regulations. The Board has consulted with the State Department of Health Services regarding regulation of this discharge.
13. The Monterey County Board of Supervisors certified a final Environmental Impacts Report on December 7, 1982, in accordance with the California Environmental Quality Act (Public Resources Code, Section 21000, et. seq.) and the California Code of Regulations. Specifications incorporated into this order are intended to assure mitigation measures identified in the EIR are implemented.

Impacts to water quality involve the potential for wastewater runoff entering drainageways and streams. Proposed mitigation measures include: 1) standby power with automatic transfer devices for the entire project; 2)

emergency 3-day reservoir with an irrigation system; and, 3) the potential for future connection to the regional system.

14. Discharge of waste is a privilege, not a right, and authorization to discharge is conditional upon the discharge complying with provisions of Division 7 of the California Water Code and any more stringent effluent limitations necessary to implement water quality control plans, to protect beneficial uses, and to prevent nuisance. Compliance with this Order should assure this and mitigate any potential adverse changes in water quality due to the discharge.
15. On October 30, 1990, the Board notified the Discharger and interested agencies and persons of its intent to adopt waste discharge requirements for the discharge and has provided them with a copy of the proposed order and an opportunity to submit written views and comments.
16. After considering all comments pertaining to this discharge during a public hearing on January 11, 1991, this Order was found consistent with the above findings.

IT IS HEREBY ORDERED, pursuant to authority in sections 13263 and 13523 of the California Water Code, Monterey County Service Area No. 72, its agents, successors, and assigns, may discharge waste at Las Palmas Ranch Residential Development providing compliance is maintained with the following:

(Note: Other prohibitions and conditions, definitions, and the method of determining compliance are contained in the attached "Standard Provisions and Reporting Requirements for Waste Discharge Requirements" dated January, 1984. Applicable paragraphs are referenced in paragraph D.2. of this Order.)

A. PROHIBITIONS

1. Discharge to other than "Irrigation Areas" shown in Attachment "A" is prohibited.

2. Discharge of any wastes other than treated domestic-type sewage wastewater from the development as described in Finding No. 2 of this order is prohibited.
3. Overflow, overspray, seepage or runoff of wastewater from "Irrigation Areas" to adjacent properties and to drainageways is prohibited.
4. Bypass and overflow of any portion of the collection and treatment facility resulting in discharge of untreated or partially treated wastes is prohibited.

5. Discharge within 50 feet of any water well and within 25 feet of any residence is prohibited.

B. RECLAMATION SPECIFICATIONS

1. Daily flow averaged over each month shall not exceed 195,000 gallons.
2. Effluent discharged to "Irrigation Areas" shall not exceed the following limitations.

<u>Constituent</u>	<u>Unit of Measurement</u>	<u>Monthly (30-day) Average</u>	<u>Daily Maximum</u>
Biochemical Oxygen Demand, 5-day	mg/l	10	25
Turbidity	NTU	2	5
Suspended Solids	mg/l	10	25
Settleable Solids	ml/l		0.1
Total Dissolved Solids	mg/l		1500
Chloride	mg/l		250
Sodium Adsorption Ratio	SAR		9

3. Effluent discharged to "Irrigation Areas" shall not have a pH less than 6.5 or greater than 8.4.
4. Where feasible, surface drainage shall be diverted around the irrigation areas.
5. Freeboard shall exceed two feet in all wastewater storage reservoirs.
6. Wastewater storage reservoirs shall be lined with an impermeable liner equivalent to one foot of clay with permeability of 1×10^{-6} cm/sec or less.
7. The "Reclamation Storage Reservoirs" shall be designed to retain Title 22 treated effluent flows and precipitation from a 100-year rainfall

- season, or a total of 120 days storage, whichever is greater.
8. The "Emergency Wastewater Storage Reservoir" shall be designed to have a capacity equivalent to at least three days of peak daily flow.
9. The median number of total coliform organisms in treated wastewater shall not exceed 2.2 MPN per 100 milliliters, as determined from the bacteriological results of the last 7 days for which analyses have been completed. The daily maximum shall not exceed 23 MPN/100 ml.
10. Free chlorine residual shall equal or exceed 1 mg/l, as measured within the chlorine contact zone.

11. Discharge to "Irrigation areas" shall cease and all wastewater shall be diverted immediately to the "Emergency Wastewater Storage Reservoir" if:
 - a. Disinfection of wastewater ceases at any time; or,
 - b. Reclamation Specifications Nos. 2, 9, or 10, are violated or are threatened with violation.
12. Irrigation of treated wastewater shall be accomplished at a time and in a manner that minimizes the possibility of public contact.
13. The "Emergency Wastewater Storage Reservoirs", "Reclamation Storage Reservoir" and "Irrigation Areas" with public access shall be posted to warn the public that wastewater is being stored or used.
14. Personnel involved in producing, transporting, or using wastewater shall be informed of possible health hazards that may result from contact with and use of wastewater.
15. Valves in the wastewater irrigation system shall be designed and constructed so unauthorized persons cannot open them.
16. Proper backflow and cross-connection protection for domestic water services and irrigation wells shall be provided.
17. Irrigation systems shall be properly labeled and regularly inspected to assure proper operation, absence of leaks, and absence of illegal connections.
18. Wastewater application to "Irrigation Areas" shall not exceed the infiltration rates of the underlying soils after adjustment for slopes.

C. GROUND WATER LIMITATIONS

1. The discharge shall not cause nitrate concentrations in the ground water downgradient of the "Irrigation Areas" to exceed 8 mg/l (as N).

2. The discharge shall not cause a significant increase of mineral constituent concentrations in underlying ground waters, as determined by comparison of samples collected from wells located upgradient and downgradient of the "Irrigation Area".
3. The discharge shall not cause concentrations of chemicals and radionuclides in groundwater to exceed limits set forth in Title 22, Chapter 15, Articles 4 and 5 of the California Code of Regulations.

D. PROVISIONS

1. Order No. 86-161, Waste Discharge and Water Reclamation Requirements for Las Palmas Ranch Residential Development, Monterey County Service Area No. 72 and Las Palmas Ranch Partnership, LTD, Monterey County," adopted by the Board on May 10, 1985, and revised on May 2, 1986, is hereby rescinded.
2. Discharger shall comply with "Monitoring and Reporting Program No. 91-14," as specified by the Executive Officer.
3. Discharger shall comply with all items of the attached "Standard Provisions and Reporting Requirements for Waste Discharge Requirements," dated January, 1984, where "disposal ponds" as used therein, shall mean "Emergency Wastewater storage Reservoir and "Reclamation Storage Reservoir" and "disposal areas" shall mean "Irrigation Areas."
4. The Discharger shall prepare/revise and follow operation and contingency plans (see standard provisions A.24. and A.25.). This plan shall be submitted to the Regional Board by May 1, 1991, and is subject to review and approval by the Executive Officer.
5. Design of the wastewater system shall include provisions to facilitate future connection to the regional system owned and operated by the Monterey Regional Water Pollution Control Agency.

- 6. Design of the treatment system shall include provision to facilitate possible future connection of the town of Spreckels.
- 7. Standby power with automatic switch-over devices shall be provided to assure a continuous power source to all sewerage system components that are dependent upon power for proper functioning.
- 8. A determination whether this discharge shall be prohibited shall be made if and when local agencies determine public sewers are available and review of the record demonstrates this discharge endangers public health or creates, or threatens to create, pollution or nuisance.
- 9. The filter shall comply with specifications established by the State Department of Health Services in its letter of November 17, 1981. Specifications not specified elsewhere in this order include:

- Turbidity in the secondary effluent of less than 10 turbidity units.

- Coagulation ahead of the filter, with adequate detention time after addition of coagulant to insure that flocculation occurs prior to filtration.

- Filter depth of at least 10 inches of sand having an effective size of 0.45 milliliters or less.

- Filtration rate of 5 gallons-per-minute-per-square-foot or less.

- Determination of a pulsing frequency that assures effective, consistent results.

- Average turbidity in the filtered wastewater of 2 turbidity units or less, and not exceeding 5 turbidity units more than 5 percent of the time during any 24-hour period.

- High energy, rapid mix of chlorine.

- Theoretical chlorine contact time of 2 hours, and a modal time of at least 90 minutes based on peak dry weather flow.

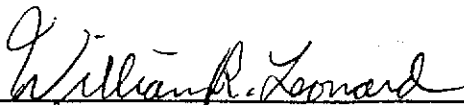
- Chlorine contact chamber length to width and length to depth ratios of at least 40:1.

- 10. Pursuant to Title 23, Chapter 3, Subchapter 9, of the California Code of Regulations, the Discharger must submit a written report to the Executive Officer not later than August 1, 1994, addressing:

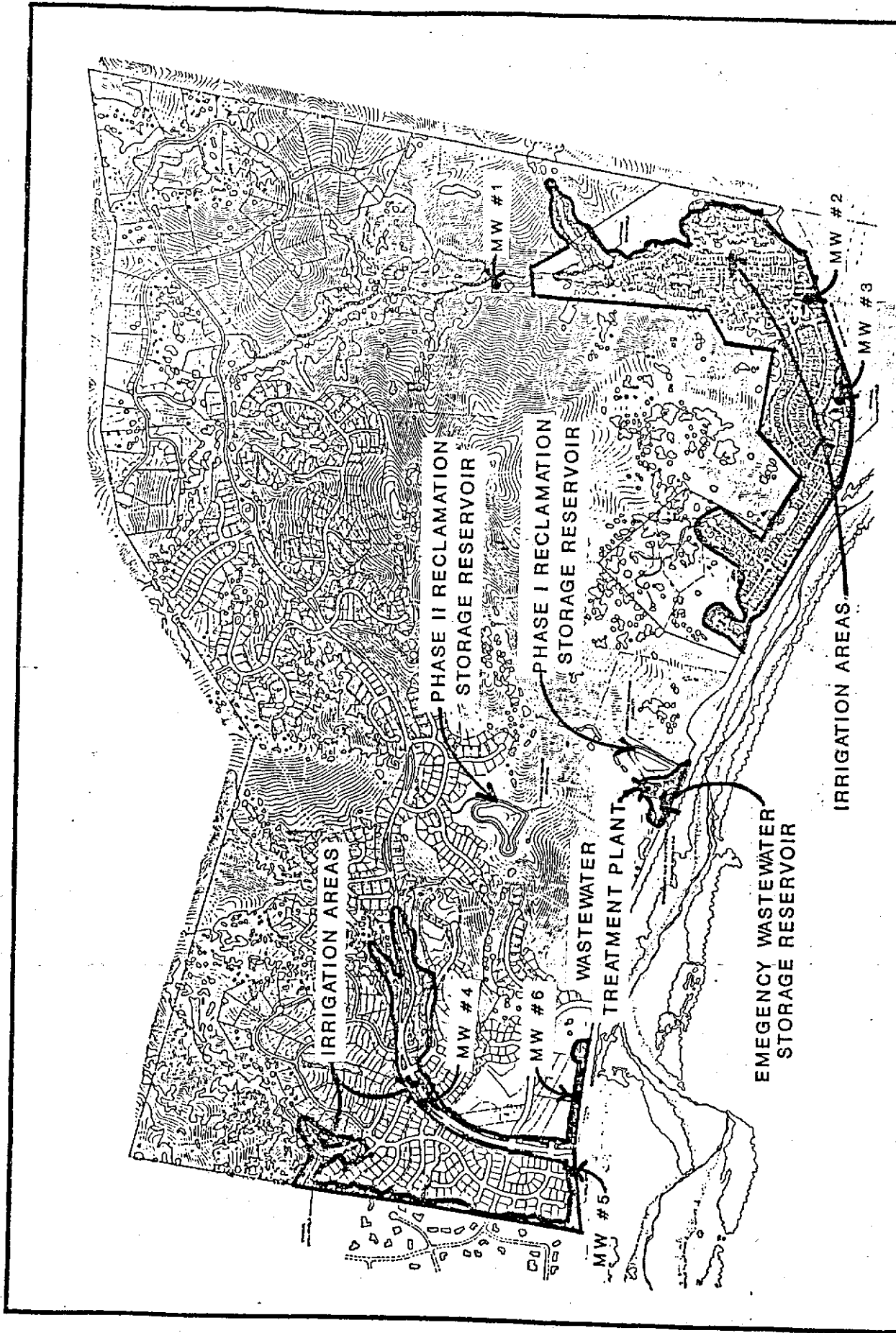
- a. Whether there will be changes in the continuity, character, location, or volume of the discharge; and,

- b. Whether, in their opinion, there is any portion of the Order that is incorrect, obsolete, or otherwise in need of revision.

I, WILLIAM R. LEONARD, 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 Coast Region, on January 11, 1991.

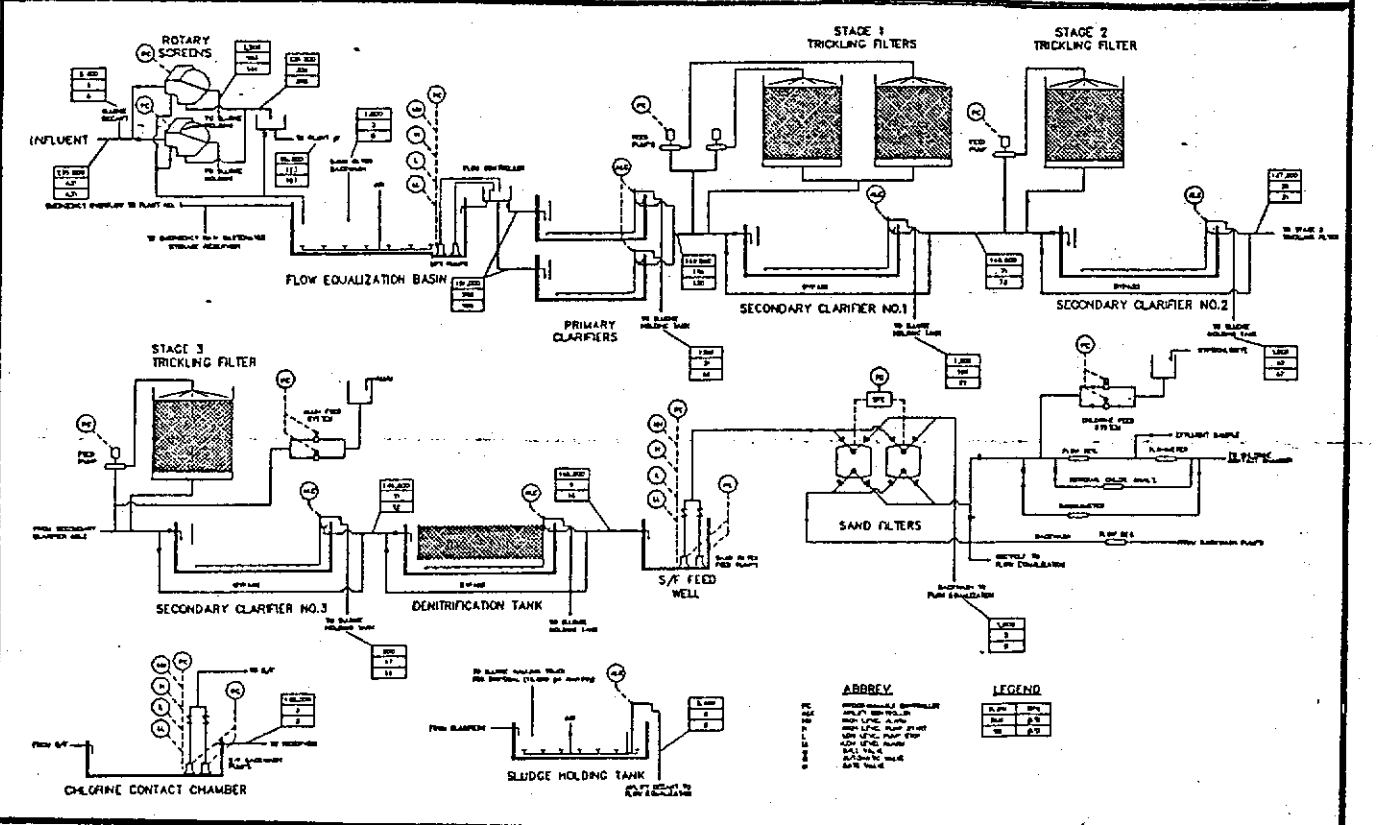
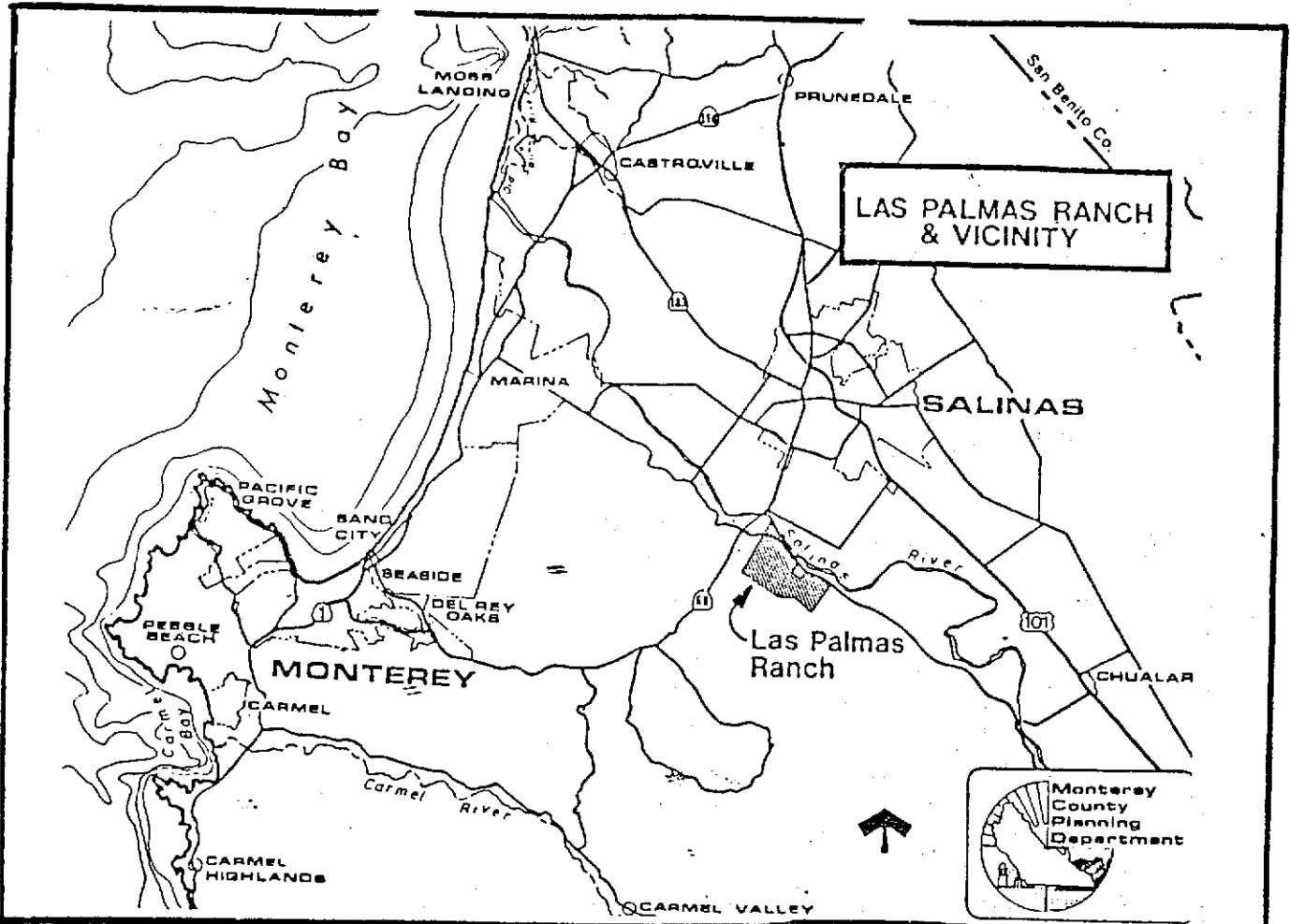


 Executive Officer



ATTACHMENT A

**LAS PALMAS RANCH
RESIDENTIAL DEVELOPMENT**



**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION**

**MONITORING AND PROGRAM NO. 91-14
FOR
MONTEREY COUNTY SERVICE AREA NO. 72,
LAS PALMAS RANCH RESIDENTIAL DEVELOPMENT,
MONTEREY COUNTY**

WASTEWATER MONITORING

WATER SUPPLY MONITORING

Representative samples of the water supply shall be collected and analyzed as follows:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>
Total Dissolved Solids	mg/l	Grab	Annually- July
Sodium	mg/l	Grab	Annually- July
Chloride	mg/l	Grab	Annually- July
Sulfate	mg/l	Grab	Annually- July
Nitrate (as N)	mg/l	Grab	Annually- July

INFLUENT MONITORING

Volume of influent shall be measured and reported as follows:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>
Flow Volume	mgd	Metered	Daily
Maximum Daily Flow	mgd	----	Monthly
Mean Daily Flow	mgd	Calculated	Monthly

EFFLUENT MONITORING

Representative samples of effluent discharged to storage reservoirs and the spray irrigation system shall be collected and analyzed as follows:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>
Coliform Organisms	MPN/100 ml	Grab	Daily
Turbidity	NTU	Grab	Daily
Suspended Solids	mg/l	Grab	Weekly
Chemical Oxygen Demand	mg/l	Grab	Weekly
Biochemical Oxygen Demand	mg/l	Grab	Weekly
"Total" Nitrogen (as N) (Total Kjeldahl + Nitrate + Nitrite)	mg/l	Grab	Quarterly (Jan, Apr, July, Oct)

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>
pH	units	Grab	Quarterly (Jan, Apr, July, Oct)
Total Dissolved Solids	mg/l	Grab	Semi-Annually (Jan & July)
Sodium	mg/l	Grab	" " " "
Chloride	mg/l	Grab	" " " "
Sulfate	mg/l	Grab	" " " "
Boron	mg/l	Grab	" " " "

RECEIVING WATER MONITORING

Samples of groundwater shall be collected from Well Nos. 1, 3, and 5 shown on Attachment "A". After depth to groundwater has been measured, the wells shall be pumped for one hour and samples collected as follows:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>
Depth to Groundwater	feet	Measured	Semi-Annually (Jan. & July)
Nitrate Nitrogen (as N)	mg/l	Grab	" " " "
Total Nitrogen (as N)	mg/l	Grab	" " " "
Nitrate + Nitrite + Total Kjeldahl Nitrogen			
Ammonia	mg/l	Grab	" " " "
Total Dissolved Solids	mg/l	Grab	" " " "
Sodium	mg/l	Grab	" " " "
Chloride	mg/l	Grab	" " " "
Sulfate	mg/l	Grab	" " " "
Boron	mg/l	Grab	" " " "

DISPOSAL AREA INSPECTION

The discharger shall make at least twice-per-week inspections of the treatment and disposal systems. In making inspections, the discharger shall note compliance status with this Order, particularly Discharge Prohibition A.I., and applicable Discharge Specifications. A log of these inspections shall be maintained. A summary of observations made during the inspections shall be submitted with each monthly monitoring report.

REPORTING

Monitoring reports and laboratory analysis sheets shall be submitted by the 20th day of the month following the month of sampling.

ORDERED BY


Executive Officer

January 11, 1991

Date