

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 94-143

WASTE DISCHARGE REQUIREMENTS FOR:

LAKE CANYON COMMUNITY SERVICES DISTRICT
LAKE CANYON
SANTA CLARA COUNTY

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

1. The Lake Canyon Community Services District (hereinafter LCCSD or discharger) submitted a Report of Waste Discharge dated April 10, 1994 for the discharge of domestic wastewater from residences of the unincorporated community of Lake Canyon, located approximately three miles west of the Town of Los Gatos, within the Lexington Basin Watershed (see Attachments A1, A2 and A3, Location Maps). The community is situated in a steep, narrow canyon formed by Beardsley Creek, a tributary of Lexington Reservoir and Los Gatos Creek, and consists of residences adjacent to Beardsley Road, Laurel Drive, Oak Court, Manzanita Drive, and Madrone Court. The high water elevation of Lexington Reservoir, a surface water supply managed by the Santa Clara Valley Water District, is located approximately 325 feet east of the nearest Lake Canyon residence.
2. The discharger proposes to operate a small diameter effluent sewer (SDES) collection system and community leachfield to collect and dispose the domestic wastewater from approximately 55 residences of unincorporated Lake Canyon. Wastewater volumes range from an estimated average of 11,550 gallons per day (gpd) to a peak design flow of 17,225 gpd. These flow estimates are based on design flows from a maximum of 65 residences.
3. The SDES collection system is made up of collection facilities in public rights-of-way as well as on-lot facility improvements. The backbone of the system is a 4-inch-diameter PVC gravity collector main located in the rights-of-way of Beardsley Road, Manzanita Drive, and Laurel Drive. Two-inch pressure lines that serve several residences are located on Oak and Madrone Courts and the lower reach of Beardsley Road. These 2-inch pressure lines discharge to the 4-inch gravity collector main. Through this central main, filtered septic effluent from private residences flows by gravity to a central lift station at the low point of the system, located adjacent to Beardsley Road at the east entrance of the community. The lift station, equipped with triplex, high-head turbine pumps, then pumps septic effluent through a 2,630-foot

long, 4-inch diameter force main along Beardsley Road, Laurel Drive, and an existing service road to the community leachfield.

On-lot facility improvements to be completed in 1995 include watertight fiberglass or concrete septic tanks fitted with effluent filters to screen out particulate matter that is 1/8-inch or larger in diameter. All existing on-lot disposal systems will be eliminated by the project. Single residences are equipped with one 1,500-gallon septic tank on their property, connected by a lateral to the central gravity collector main along the community streets. In some instances, clusters of two residences are served by a single 1,500-gallon septic tank and lateral. Where topographic features prevent gravity flow to the central main, septic tanks are fitted with effluent pump systems. Gravity laterals are typically 2-inch-diameter PVC, and pump-ups are 1.25-inch-diameter PVC.

4. The central lift station is fitted with a control system, including mercury floats, alarms, auto-dialer for operator notification, and a self-diagnostic system. The lift station also includes a 5,000-gallon storage tank with floats and alarms, in case of pump or power failure. The station is equipped with a sand scrubber trench for odor control. The control panel is designed to allow the use of back-up power in the event of a sustained power outage in the area. Backup power will be made available by a 3,000 watt portable generator, stored at a residence near the pump station. This pump station provides enough head in the force main to overcome friction losses and pumps to a leachfield dosing tank fitted with duplex dosing siphons. The dosing system will discharge to a pressure-dosed leachfield; each dosing siphon is dedicated to a quadrant of the dual leachfield that is in operation.
5. The two-acre community leachfield is located approximately 1,100 feet northeast of the nearest Lake Canyon residence, and 400 feet northwest of Lexington Reservoir, on the former Azzarello Ranch. The leachfield is designed and operated as a dual, 200 percent, pressure-dosed system, in accordance with the Board's 1979 *Minimum Guidelines for the Control of Individual Wastewater Treatment and Disposal Systems (Minimum Guidelines)* as well as updated guidance contained in 1992 *Draft Minimum Guidelines* pertaining to innovative septic systems. The system is operated as a winter/summer dual leachfield, in order to maintain a required minimum separation of three feet between the leaching trench and the ground water table. The upper, western portion of the leachfield area is designed for use during the winter months (e.g., November to April), where separation to ground water is relatively greater, and the lower, eastern portion of the site is used only during the summer dry season (e.g., May to October), when ground water is absent within the upper ten feet of soil.
6. The location of the community leachfield, at the lower end of the canyon, makes it susceptible to adverse effects of surface and subsurface drainage. Drainage improvements installed upslope of the leachfield divert drainage around the site. Interceptor drains ("curtain drains"), v-ditches, and berms are part of the design, and

reduce surface and ground water flow through the leachfield. In addition, pursuant to *Minimum Guidelines*, adequate setbacks from ephemeral drainage courses and the reservoir have been incorporated into the leachfield design.

7. The newly constructed septic effluent collection system and community leachfield represent a significant improvement in the wastewater treatment and disposal system of the Lake Canyon community. Studies conducted in the 1980s identified significant deficiencies in the septic systems of the community, wherein engineering firms documented a high rate of septic system failures, poor site conditions, and contamination of Beardsley Creek and Lexington Reservoir. A building moratorium was imposed on the Lake Canyon community by the Santa Clara County Health Department in late 1980 as a result of an area-wide wastewater management study for the Lexington Basin, which identified Lake Canyon as having significant septic system problems. The former wastewater treatment and disposal systems on individual properties included cesspools, septic tank-seepage pit systems, septic tank-leachfields, and graywater systems, many of which did not have adequate setbacks to structures or water courses. Additionally, some of these systems are prohibited by the Regional Board's *Minimum Guidelines* and the County's Health and Sanitation Ordinance. All existing on-lot disposal systems have been eliminated by the project.
8. In 1991, the County of Santa Clara received a Small Community Grant from the State Water Resources Control Board to study alternatives for remediating the Lake Canyon septic systems problem. The County selected the preferred alternative, described in Findings 3 to 5 above, in late 1992. The Lake Canyon Community Services District (LCCSD, discharger), formerly the Lake Canyon Community Improvement Committee (CIC), received approval from the Local Agency Formation Commission (LAFCO) for formation in March 1993. At that time, the LCCSD replaced the County as the lead agency for financing, operating and maintaining the new system.
9. All of the requirements of the Board's *Minimum Guidelines* are met by the proposed wastewater collection and disposal system, with two minor exceptions, listed herein. One of out eight soil profiles on the proposed leachfield showed greater than 50% rock by volume at about ten feet below the ground surface. In addition, some of the on-lot septic tanks will not have a 50-foot setback from Beardsley Creek. These conditions do not preclude authorization of the project for the following reasons. The rocky subsoil of the leachfield was found to have less than 50% rock by volume in all eight soil profiles at soil depths where biodegradation of the effluent is expected to occur. The 50-foot setback from streams required for septic tanks is intended to prevent degradation of the stream from septic tank overflow attributable to backup in the disposal system. The high-head pump station and associated storage tank will minimize the possibility of backups through the collection system to individual septic tanks. Moreover, as described in Finding 7, above, the proposed wastewater system represents a significant improvement in water quality protection relative to the existing individual systems, many of which are within 10 to 25 feet of the creek.

10. The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) on December 17, 1986, prescribing water quality objectives for the surface and ground waters of Santa Clara County. The Basin Plan prohibits the discharge of any untreated sewage or any waste failing to meet waste discharge requirements to any waters of the state. The Basin Plan identifies beneficial uses of Los Gatos Creek and Lexington Reservoir as:

- Municipal and domestic supply
- Ground water recharge
- Fresh water replenishment
- Water contact recreation
- Non-contact water recreation
- Warm fresh water habitat
- Cold fresh water habitat
- Wildlife habitat
- Fish migration
- Fish spawning

The Basin Plan identifies beneficial uses of the underlying ground waters as:

- Municipal and domestic supply
- Industrial process water supply
- Industrial service supply
- Agricultural supply

11. The County of Santa Clara determined on the basis of an Environmental Impact Report that the project, as described, will have less than significant impacts on the environment, provided that recommended mitigation measures are implemented. The County therefore certified a Final Environmental Impact Report regarding this project dated October 1992 in accordance with the California Environmental Quality Act (Public Resources Code Section 2100 et. seq.).

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

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

IT IS HEREBY ORDERED that the Lake Canyon Community Services 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. Discharge Prohibitions

1. There shall be no surfacing of wastewater effluent at any time.
2. Wastewater shall not be discharged from the discharger's system into waters of the state via surface flow or surfacing after percolation.
3. The volume of wastewater discharged to the community leachfield shall not exceed 17,225 gallons per day.
4. The discharge of waste to the small diameter effluent sewer (SDES) collection system, other than domestic waste, is prohibited.
5. The collection, treatment, and disposal of wastewater shall not impair ground water quality.

B. Specifications

1. The collection, treatment, and disposal of waste shall not create a nuisance as defined in Section 13050(m) of the California Water Code.
2. The disposal of waste shall not cause degradation of ground or surface water suitable for domestic water supply or cause an increase in any water quality parameter that would impair beneficial uses listed in Finding 10 of this Order.
3. Wastewater disposal shall be limited to the community leachfield.
4. All above ground equipment, including pumps, piping, and valves, etc., which may at any time contain waste shall be adequately and clearly identified with warning signs. The discharger shall make all necessary provisions to inform affected persons that the wastewater effluent is sewage and unfit for human consumption.
5. The central lift station and community leachfield shall be clearly identified with posted notices warning the public of the presence of wastewater effluent.

C. Provisions

1. All portions of this Order shall be complied with immediately upon commencement of discharge.
2. The discharger shall file with the Regional Board a Report of Waste Discharge at least 120 days before making any material change in the character, location, or volume of the discharge.

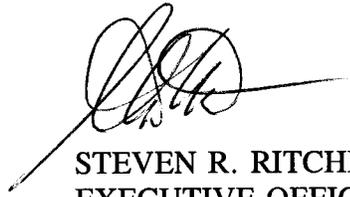
3. The discharger shall comply with the attached self-monitoring program as adopted by the Board and as may be amended by the Executive Officer.
4. The discharger shall maintain in good working order and operate as efficiently as possible any facility or control system installed by the discharger to achieve compliance with the waste discharge requirements.
5. The discharger shall assure proper operation of waste collection, pumping, and discharge facilities, worker protection, and compliance with this Order. An Operations and Maintenance Manual, acceptable to the Executive Officer, is required to be maintained by the discharger for purposes of providing maintenance and regulatory personnel with a source of information describing all equipment, facilities, and recommended operation and maintenance strategies (e.g., frequency of septic tank pumping, lift station cleaning, collection system flushing, testing and flushing of the leachfield pressure distribution laterals, etc.).

An acceptable Operations and Maintenance Manual must be received by the Board prior to initiation of the discharge.

6. The discharger must have on staff, or hire on a contract basis, the personnel necessary to oversee the operation of the SDES collection system and community leachfield. The discharger shall employ a supervisor with at least a Grade I wastewater treatment plant operator certification, or demonstrate to the satisfaction of the Executive Officer that an equivalent level of supervision is being maintained.
7. The discharger shall permit the Board or its authorized representative in accordance with California Water Code Section 13267(c):
 - a. Entry upon premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of the Order.
 - b. Access to and copy of any records that must be kept under the conditions of this Order.
 - c. Inspection of any facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order.
 - d. To photograph, sample, and monitor for the purpose of assuring compliance with this Order.

8. In the event of any change in control or ownership of the land or the waste discharge facilities presently owned or controlled by the discharger, the discharger shall notify the succeeding owner or operator of the existence of this Order by a letter, a copy of which shall be forwarded to the Board.
9. The Board will revise this Order periodically and may revise these requirements when necessary.

I, Steven R. Ritchie, 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 Francisco Bay Region, on October 19, 1994.

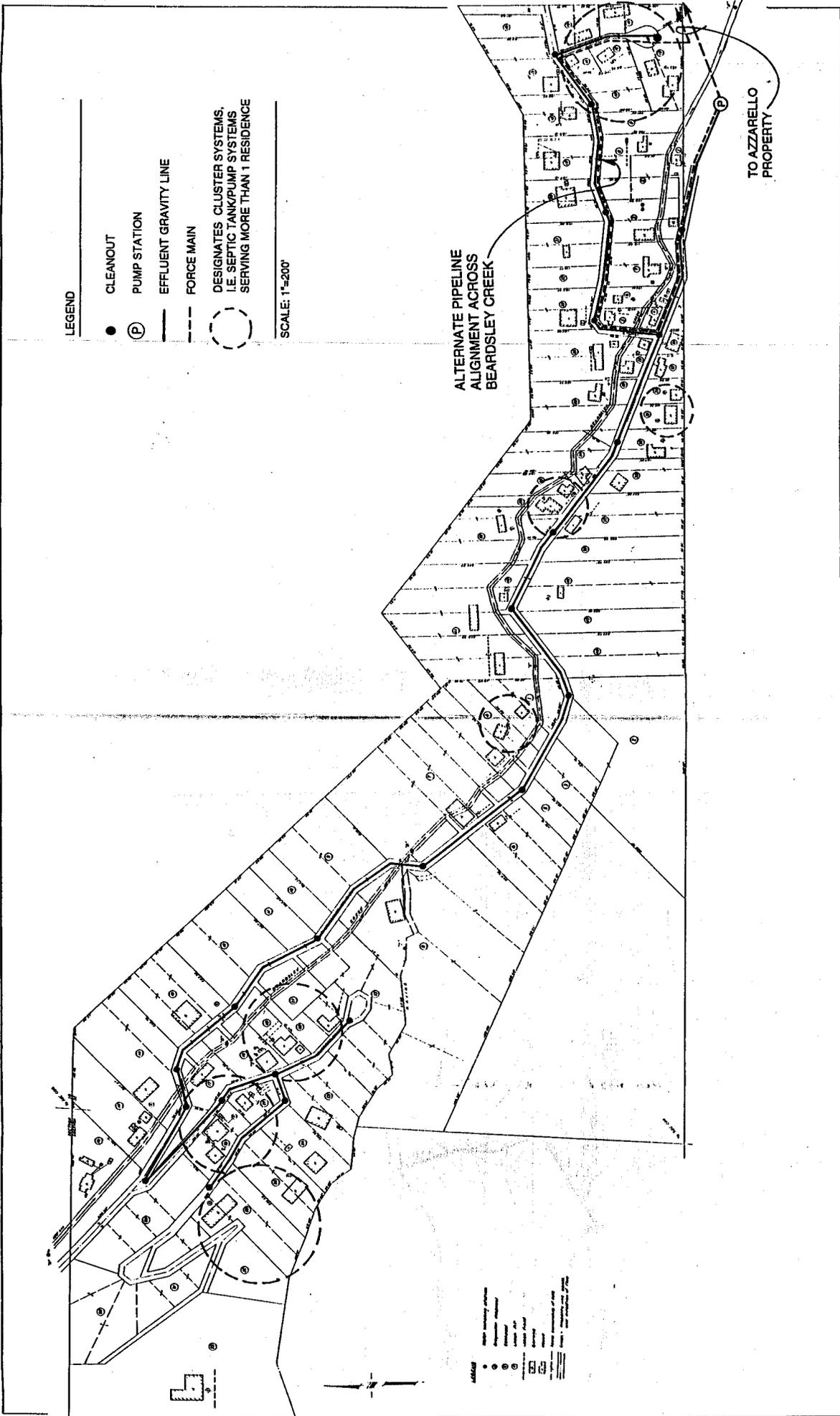


STEVEN R. RITCHIE
EXECUTIVE OFFICER

Attachments:

- A. Location Maps
- B. Self-Monitoring Program
- C. Standard Provisions and Reporting Requirements for Non-NPDES Wastewater Discharge Permits

File No. 2189.8090 (SMM)



LEGEND

- CLEANOUT
- Ⓟ PUMP STATION
- EFFLUENT GRAVITY LINE
- - - FORCE MAIN
- DESIGNATES CLUSTER SYSTEMS, I.E. SEPTIC TANK/PUMP SYSTEMS SERVING MORE THAN 1 RESIDENCE

SCALE: 1"=200'

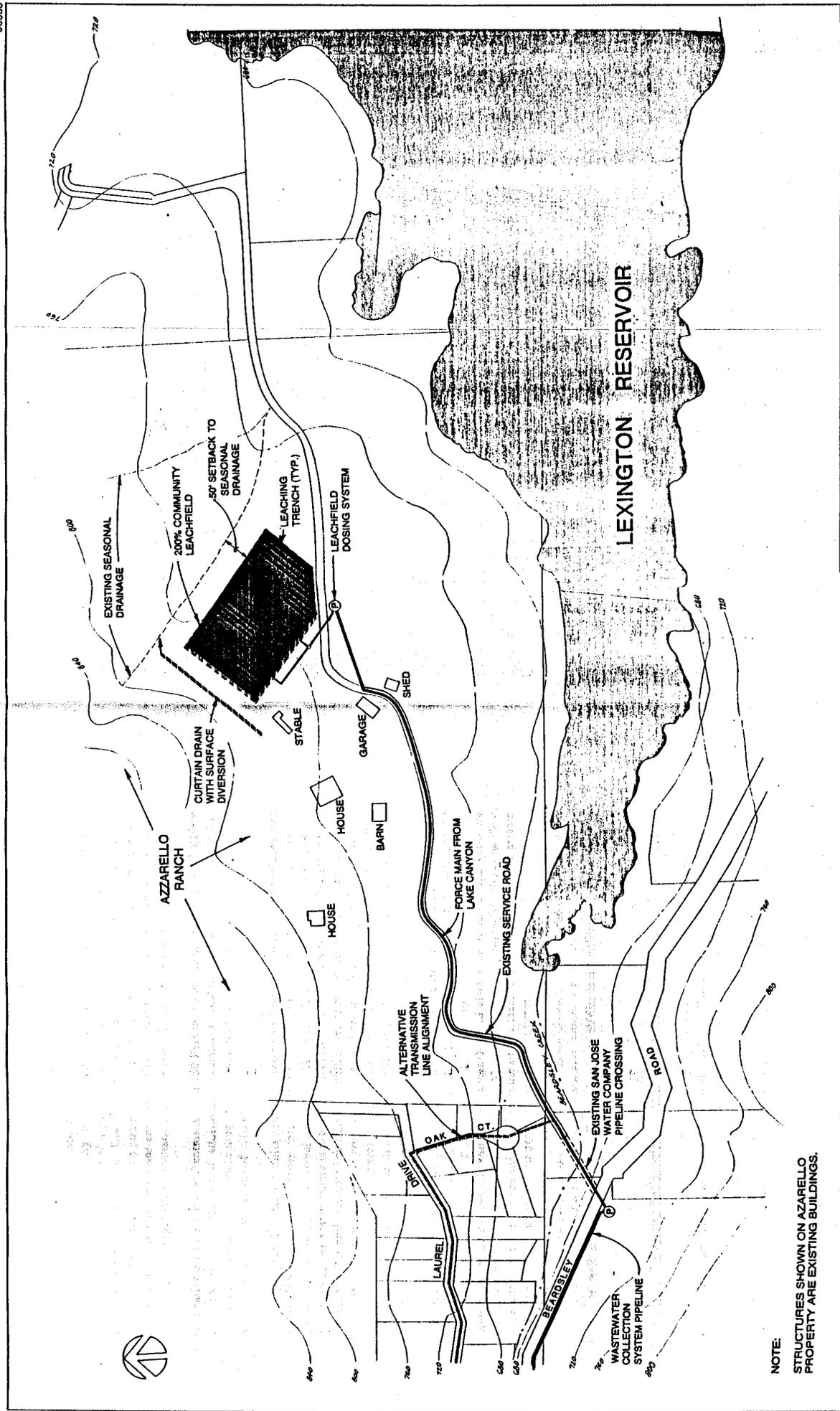
ALTERNATE PIPELINE ALIGNMENT ACROSS BEARDSLEY CREEK

TO AZZARELLO PROPERTY

Questa Engineering Corporation
 Point Richmond, California

PROPOSED LAKE CANYON
 COLLECTION SYSTEM LAYOUT
 USING A SMALL DIAMETER
 EFFLUENT SEWER

Figure 7-1



QUESTA ENGINEERING CORPORATION
 Point Richmond, California

LAKE CANYON WASTEWATER
 FACILITIES PLAN
 ALTERNATIVE 3A
 -COMMUNITY LEACHFIELD

Figure
 7-2

NOTE:
 STRUCTURES SHOWN ON AZZARELLO
 PROPERTY ARE EXISTING BUILDINGS.

LEGEND
 (P) PUMP STATION

SCALE: 1"=200'

Attachment B, Order No. 94-143

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM
FOR

LAKE CANYON COMMUNITY SERVICES DISTRICT

SANTA CLARA COUNTY

ORDER NO. 94-143

CONSISTS OF

PART A (dated 8/93)

AND

PART B

SELF-MONITORING PROGRAM
LAKE CANYON COMMUNITY SERVICES DISTRICT
PART B

I. GENERAL

Reporting responsibilities of waste dischargers are specified in Section 13225(a), 13267(b), 13268, 13383, and 13387(b) of the California Water Code and this Regional Board's Resolution No. 73-16.

The principal purposes of a monitoring program by a waste discharger, or self-monitoring program, are:

1. To document compliance with waste discharge requirements and prohibitions established by this Regional Board.
2. To facilitate self-policing by the waste discharger in the prevention and abatement of pollution arising from the waste discharge.

II. DESCRIPTION OF SAMPLING STATIONS

Note: A sketch showing the locations of the stations described below shall accompany each quarterly report, and the annual report for each calendar year. Some of these locations are delineated on the attached location map.

<u>Station</u>	<u>Location</u>
A-1	Water meter or counter on the pump controls at the central lift station, whichever applicable, monitored to determine daily flow to the community leachfield.
G-1 through G-n	Ground water monitoring wells (exact locations to be determined prior to commencement of discharge).
C-1 through C-n	Surface water monitoring locations (exact locations to be determined prior to commencement of discharge).
S-1 through S-n	Points along the pressure-dosed leachfield at which surfacing wastewater would be apparent.

III. SCHEDULE OF SAMPLING, ANALYSES, AND OBSERVATIONS

See Table 1, next page, for monitoring requirements. All samples made pursuant to requirements in Table 1 shall be grab samples, with the exception of flow measurement.

IV. REPORTS TO BE FILED WITH THE REGIONAL BOARD

A. Violations of Requirements

A report shall be made of any accidental spill of waste. Accidental spills shall be reported to this Regional Board by telephone immediately after it occurs, at (510) 286-1255. The subsequent written report shall be filed within five (5) days and shall contain information as required in Part A of the Self-Monitoring Program, Section F.1.

B. Self-Monitoring Reports

Written reports shall be filed regularly for each quarter (three months) and submitted by the fifteenth day of the following month (i.e., Jan. 15, Apr. 15, July 15, Oct. 15). The reports shall be comprised of the following:

(1) Letter of Transmittal

A letter transmitting the self-monitoring report should accompany each report. Such a letter shall include a discussion of requirement violations found during the past month and actions taken or planned for correcting violations. Monitoring reports and the letter transmitting reports shall be signed by a responsible official. The letter shall contain a statement by the official, under penalty of perjury, that to the best of the signer's knowledge the report is true and correct.

(2) Data Results

All results observed or analyzed under the schedule in Table 1, including dates and times of sampling and/or observations.

(3) Location Map

A map shall accompany the report showing sampling and observation station locations.

V. MODIFICATIONS TO PART A

The following sections of Part A (dated 8/93) of the Self-Monitoring Program do not apply to the waste discharged at the LCCSD community leachfield site:

C.1.a, C.1.b, C.1.c, D.1.a, D.1.d, D.2.b, E.4, F.5

C.1.d. is modified to read:

When any type of overflow occurs, samples of the creek shall be collected on a daily basis for total and fecal coliform at all affected discharge locations for the duration of the overflow.

TABLE 1
SCHEDULE OF SAMPLING, ANALYSES, AND OBSERVATIONS*
Lake Canyon Community Services District
Santa Clara County

STATION	FREQUENCY OF SAMPLING	TYPE OF ANALYSIS OR OBSERVATION	UNIT
A-1	Daily	Average Daily Flow of Water Disposed in Leachfield	Gallons per Day
G-1 through G-n	Monthly	(1) Nitrate-Nitrogen (2) Total Coliform (3) Fecal Coliform	mg/l MPN/100 ml MPN/100 ml
C-1 through C-n	Monthly	(1) Nitrate-Nitrogen (2) Total Coliform (3) Fecal Coliform	mg/l MPN/100 ml MPN/100 ml
S-1 through S-n*	Whenever Leachate Surfaces	(1) Area over which surfacing occurs (2) Presence or absence of odors (3) Location of surfacing (use map) wastewater (4) Total Coliform (5) Fecal Coliform	Square Feet MPN/100 ml MPN/100 ml

* An observation will be made for surfacing leachate weekly and reports will be submitted to the Regional Board quarterly (i.e., on the 15th of Jan., Apr., July, and Oct.).

I, Steven R. Ritchie, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 94-143.
2. Has been ordered by the Board on October 19, 1994.
3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger and revisions will be ordered by the Executive Officer.



STEVEN R. RITCHIE
EXECUTIVE OFFICER

Attachments: Part A, dated August 1993
Self-Monitoring Location Map (to be added prior to commencement of
discharge)