

State of California  
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LOS ANGELES REGION

ORDER NO. 01-069

WASTE DISCHARGE REQUIREMENTS  
AND  
WATER RECYCLING REQUIREMENTS  
FOR  
CHASE BROTHERS DAIRY  
(File No. 72-102)

The California Regional Water Quality Control Board (RWQCB), Los Angeles Region (Regional Board), finds:

1. Chase Brothers Dairy, Incorporated (hereinafter Discharger), owns and operates a facility located at 595 Wolff Road, Oxnard, California (Figure 1 is a site map). Wastewaters discharged from the facility are reused for land irrigation under the requirements of the Waste Discharge Requirements prescribed in Order No. 88-109, adopted by this Regional Board on October 24, 1988.
2. The California Water Code Section 13263(e) provides that all Requirements shall be reviewed periodically and, upon such review may be revised by the Regional Board. A review of the current Requirements, and a site inspection, was conducted by Regional Board staff, during which several changes to the facility operations were identified.

Description of Facility

3. The Discharger pasteurizes and processes raw milk into various dairy food products including non-fat milk, low-fat milk, and chocolate milk at the subject facility. No wastewater is generated during these processes.
4. The facility includes an administrative office building, a group lavatory, a creamery – milk processing building, a dry storage and raw milk receiving building, a truck shop, a maintenance shop, a small boiler area, an equipment warehouse, four storage buildings for miscellaneous processing equipment, a former area for manure storage and handling, a crop field, a pasture grass field, and a holding pond area (Figure 2 is the facility layout). The holding pond area includes three ponds with a total area of about 2.95 acres and a capacity of approximately 5 million gallons (with 18 inches of freeboard). The entire facility covers approximately 320 acres.
5. A manure storage and handling area was previously located in the southwest portion of the facility. This area occupies approximately 7.5 acres of land. This area is currently being converted to a land for growing crops and there is no manure storage and handling area.

6. The facility is located in Section 6, Township 1N, Range 21W, based on the San Bernardino Base & Meridian.
7. Water supply for domestic and dairy processing consumption is obtained from a water production well (Well #9) located in the northwestern corner of the facility. The well produces approximately 65 million gallons of water per year and has a total depth of 975 feet. The facility utilizes an average of 44,000 gallons of water on a daily basis for domestic and dairy processing purposes.
8. The County of Ventura Public Works Agency Water Resources and Engineering Department records indicate that the depths to the perched groundwater at the subject area range from 3 feet to 10 feet with an average of 5 feet. In addition, the average depth to the Oxnard Plain Groundwater Basin, which is the first encountered regional groundwater basin beyond the perched groundwater basin, is 17.8 feet.
9. The facility is located in a rural area of Ventura County, and is not able to connect to a sanitary sewer system in a cost-effective manner. Domestic wastewater is discharged to septic tank/leach field systems at four locations on the property. The septic tanks were installed between 1925 and 1979 at approximately 2 feet below ground surface.
10. The facility had 60 to 100 cattle on-site from 1990 to 1999. By November 1999, all cattle had been removed from the site. Currently, there are no cattle at the facility.

Description of Waste Discharge

11. The Discharger discharges wastewater from various sources as follows (Figure 3 is the Flow Chart):

<u>Source</u>	<u>Maximum Quantity (gpd)</u>	<u>Frequency (per week)</u>
Equipment washing units (case and can washers, vat and pipeline cleaning system)	60,000	7 days
Boiler blow-down units	50	5 days
General wash-down	10,000	7 days
Storm water/Surface drainage	29,950	Intermittent
Septic tanks	6,000	-----

12. The wastewater (except domestic wastewater from septic tanks) is channeled into two concrete-lined sumps with a total capacity of 48,000 gallons. Wastewater in the sumps is then pumped to the three holding ponds by two pumps with pumping rates of 300 gallons per minute and 450 gallons per minute, respectively.
13. Water from these ponds is pumped out and utilized for year-round irrigation on approximately 50 acres of pasture grass field controlled by the Discharger (Figure 2 is the facility layout). An average of 315,000 gallons of the recycled water is utilized for pasture grass irrigation on a weekly basis.
14. The three holding ponds are lined with and underlain by native soils which contain at least 10 percent clay and not more than 10 percent gravel. Soil data for the site as compiled by the United States Department of Agriculture and tabulated in the *Soil Survey Report for the Ventura Area (April 1970)* indicate that the native soils used for the lining of the ponds are relatively impermeable.
15. The septic tanks at the site have capacities ranging from 1,200 to 1,500 gallons. The Ventura Regional Sanitation District issued "Commercial Septic Tank Waste Permits" on March 11, 1998, for these septic tanks. The quality of effluent from the septic tank system has not been monitored. As a result, the effluent quality from the septic tanks and its impact to groundwater are not known. Therefore, a groundwater monitoring program is necessary to evaluate any impacts from the discharge of waste to groundwater, and to determine the migration potential of waste discharged to groundwater.
16. Storm water and surface drainage is collected in the wastewater drainage system on-site and is then channeled into the two concrete-lined sumps as indicated in Item 12 above.

Applicable Plans, Policies and Regulations

17. The Regional Board adopted a revised *Water Quality Control Plan (Basin Plan) for the Coastal Watersheds of Los Angeles and Ventura Counties* on June 13, 1994. The Basin Plan contains beneficial uses and water quality objectives for the Oxnard Plain Basin:  

Existing:	municipal and domestic supply and agricultural supply.
Potential:	industrial service supply.
18. This project involves an existing facility and, as such, is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 2100 et seq.), in accordance with California Code of Regulations, Title 14, Chapter 3, Section 15301.
19. Pursuant to California Water Code Section 13320, any aggrieved party may seek review of this Order by filing a petition with the State Board. A petition must be sent to the State Water Resources Control Board, P.O. Box 100, Sacramento, California, 95812, within 30 days of adoption of the Order.

20. In accordance with the Governor's Executive Order requiring any proposed activity be reviewed to determine whether such activity will cause additional energy usage, Regional Board staff have determined that implementation of these Wastes Discharge Requirements will not result in a significant change in energy usage.

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

The Regional Board, in a public hearing, heard and considered all comments pertaining to the discharge and to the tentative requirements.

**IT IS HEREBY ORDERED** that Chase Brothers Dairy, Incorporated, shall comply with the following:

A. Waste Discharge Requirements for Holding Ponds

1. Waste discharged to the three holding ponds shall be limited to only wastewaters as described in Item 11 above.
2. The pH of wastes discharged to the ponds shall at all times be within the range 6.5 to 8.5.
3. The temperature of the wastes discharged shall not exceed 100 °F.
4. Radioactivity shall not exceed the limits specified in Title 22, Chapter 15, Article 5, Sections 64441 and 64443, California Code of Regulations, or subsequent revisions.
5. The discharge of an effluent with constituents in excess of the following limits is prohibited:

<u>Constituents</u>	<u>Units</u>	<u>Daily Maximum Limit</u>
Total dissolved solids	mg/L	3,000
Chloride	mg/L	500
Sulfate	mg/L	1,000
Nitrate + Nitrite as Nitrogen	mg/L	10
Fluoride	mg/L	1.8

B. Recycled Water Specifications for Irrigation

1. Recycled water used for irrigation shall be retained on the areas of use and shall not be allowed to escape as surface flow (See Figure 2).
2. Recycled water shall be applied at such a rate and volume as not to exceed vegetation demand and soil moisture conditions. Special precautions must be taken to prevent clogging of spray nozzles, to prevent overwatering and to exclude the production of runoff. Pipelines shall be maintained so as to prevent leaks.
3. Recycled water shall not be used for irrigation during periods of rainfall and/or runoff.
4. Recycled water reuse shall not result in problems due to breeding of mosquitoes, gnats, or other pests.
5. Recycled water used as spray disposal shall not result in earth movement in geologically unstable areas.
6. All areas where recycled water is used, and that are accessible to the public, shall be posted with conspicuous signs that include the following wording in a size no less than 4 inches high by 8 inches wide: "ATTENTION: NON-POTABLE WATER - DO NOT DRINK." Each sign shall display the appropriate international symbol.

C. Waste Discharge Requirements for Septic Tank/Leach Field Systems

1. Waste discharge shall be limited to domestic sewage only; no industrial or commercial wastes shall be discharged.
2. Receiving water shall be defined as groundwater at a point no greater than fifty (50) feet hydraulically downgradient of the furthest extent of the disposal area, or the property line of the Discharger, whichever is less.
3. The receiving water shall not contain constituents in excess of the following limits:

<u>Constituents</u>	<u>Units</u>	<u>Maximum Limit</u>
Total dissolved solids	mg/L	3,000
Chloride	mg/L	500
Sulfate	mg/L	1,000
Nitrate + Nitrite as Nitrogen	mg/L	10
Fluoride	mg/L	1.8

Total Coliform	MPN/100mL	<1.1(a)
Fecal Coliform	MPN/100mL	<1.1(a)
Enterococcus	MPN/100mL	<1.1(a)

(a) If a minimum of ten (10) feet of vertical separation cannot be maintained between the bottom of the disposal system and the historic high or anticipated high groundwater level, the limits shall apply prior to discharge to the disposal system. In addition, effluent shall be disinfected if necessary.

4. The discharger shall not discharge waste in excess of the maximum design and disposal capacity of the septic systems.
5. Odors of sewage origin shall not be detectable beyond the limits of the property owned or controlled by the Discharger.
6. Any additional hookups to the septic systems without prior written approval from the Regional Board Executive Officer are prohibited.
7. The surfacing or overflow of sewage from the septic systems at any time and at any location and the direct or indirect discharge of wastes to waters of the State (including storm drains, groundwater or surface water drainage courses) is prohibited.
8. No part of the septic systems shall be closer than closer than 150 feet to any water well or closer than 100 feet to any stream, channel or other watercourse.
9. No part of the septic systems or leach fields shall extend to a depth where wastes may deleteriously affect an aquifer that is usable for domestic purposes. Under no circumstances shall there be a groundwater separation of less than five feet.
10. Septic tank cleanings shall be performed only by a duly authorized service.
11. The discharger shall ensure that the contents of the septic systems are disposed of in accordance with all applicable laws and ordinances.
12. In the event that wastes are transported to a different disposal site, the Discharger shall report: types of wastes and quantity of each type; name and address of each waste hauler (or method of transport if other than by hauling); and location of the final point(s) of disposal of each type of wastes.
13. Neither the treatment or disposal nor any handling of wastes shall cause a condition of pollution or nuisance, or problems due to breeding of mosquitoes, midges, flies, or other pests.

D. Prohibitions

1. Discharge of wastes to any point other than specifically described in this Order is prohibited and constitutes a violation thereof.
2. Effluent discharged to the ponds shall not have any visible scum, foam, floating debris, or sludge deposits at any time.
3. The ponds containing discharged effluent shall not have beggiatoa or other indications of anaerobic conditions.
4. The ponds and the berms surrounding the ponds shall not contain plants, shrubs, and bushes.
5. Wastes discharged shall not impart tastes, odors, color, foaming or other objectionable characteristics to the receiving water.
6. Wastes discharged shall at no time contain any substance in concentrations toxic to human, animal, plant, or aquatic life.
7. Wastewater discharged shall not result in concentrations of salt, heavy metals or organic pollutants from being present in the receiving water at levels that would impact the designated beneficial uses of groundwater, or in the event that groundwater is in hydraulic connection with surface waters, the designated beneficial uses of surface water.
8. The disposal of wastes in geologically unstable areas or so as to cause earth movement is prohibited.
9. The direct or indirect discharge of any wastewater to surface waters or surface water drainage courses is prohibited.
10. The on-site disposal of sludge is prohibited.
11. All discharges that do not meet the aforementioned requirements shall be held in impervious containers and discharged at a legal point of disposal.
12. Disposal or handling of process wastewater and/or storm water runoff shall not create a condition of pollution, contamination or nuisance, or problems due to breeding of mosquitoes, gnats, midges, flies or other pests.

E. Provisions

1. The Discharger shall file with the Regional Board technical reports on self-monitoring work performed according with the specifications contained in Monitoring and Reporting Program No. 5982, as directed by the Executive Officer.

The results of any monitoring done more frequently than required at the location and/or times specified in the Monitoring and Reporting Program shall be reported to the Regional Board.

2. The Discharger shall comply with the effluent limitations established in this Order. If the Discharger is unable to meet the effluent limitations, the Discharger shall terminate all discharges to the ponds. The Discharger shall subsequently design, install and operate a wastewater treatment system that will enable compliance with the effluent limitations.
3. 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.
4. The discharge of any wastes or overflow from the ponds to any water course or drainage ditch is prohibited at all times. The water levels in the holding ponds shall be maintained at a level to ensure that rainfall and storm flows will not cause overtopping.
5. A copy of this Order shall be maintained where it will be available at all times to operating personnel.
6. In the event of any change of ownership of land or waste discharge facilities presently owned or controlled by the Discharger, the Discharger shall notify this Board of such change and shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be forwarded to this Board.
7. In accordance with Section 13260(b) of the California Water Code, the Discharger shall file a report of any material change or proposed change in the character, location or volume of the discharge.
8. The Discharger shall notify this Board immediately by telephone of any adverse conditions resulting from this discharge, with such notification to be affirmed in writing within two weeks.
9. This Order includes the attached Monitoring and Reporting Program (Attachment T). If there is any conflict between provisions stated in the Monitoring and Reporting Program and the Standard Provisions, those provisions stated in the Monitoring and Reporting Program prevail.
10. This Order includes the attached *Standard Provisions Applicable to Waste Discharge Requirements* (Standard Provisions, Attachment W). If there is any conflict between provisions stated hereinbefore and the attached "Standard Provisions," those provisions attached hereinbefore prevail.



11. This Order does not exempt the operator of this facility from compliance with any other laws, regulations, or ordinances which may be applicable, and it does not affect any further restraints on this facility which may be contained in other statutes or required by other agencies.
12. In accordance with Section 13263(e) of the California Water Code, these requirements are subject to periodic review and revision by this Regional Board with a five (5) year cycle.
13. In accordance with Water Code Section 13263(g), these requirements shall not create a vested right to continue to discharge. All discharges of waste into the waters of the State are privileges, not rights, and are subject to rescission or modification.

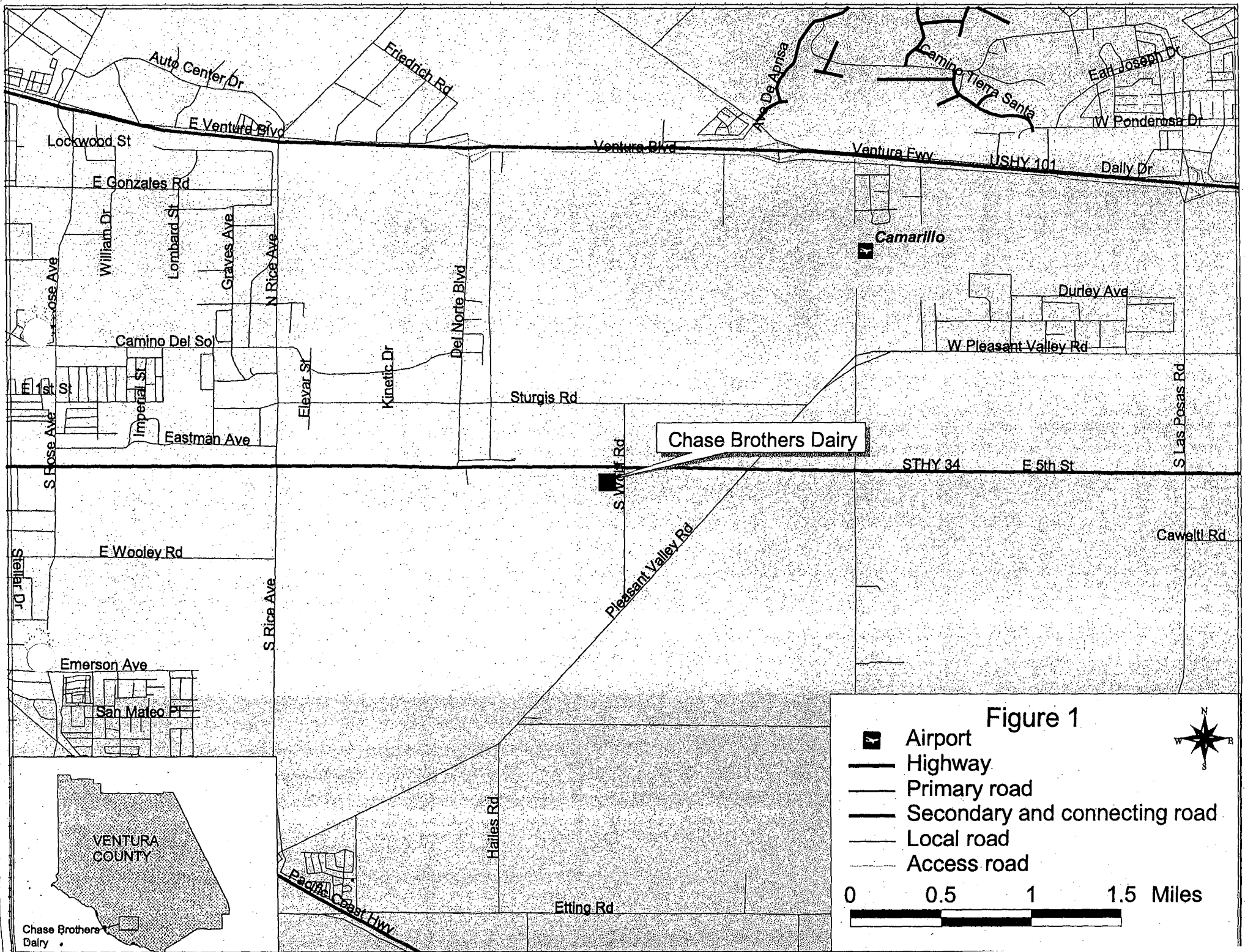
G. Rescission

Order No. 88-109, adopted by this Board on October 24, 1988, is hereby rescinded, except for enforcement purposes.

I, Dennis A. Dickerson, 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, Los Angeles Region on May 24, 2001.



Dennis A. Dickerson  
Executive Officer

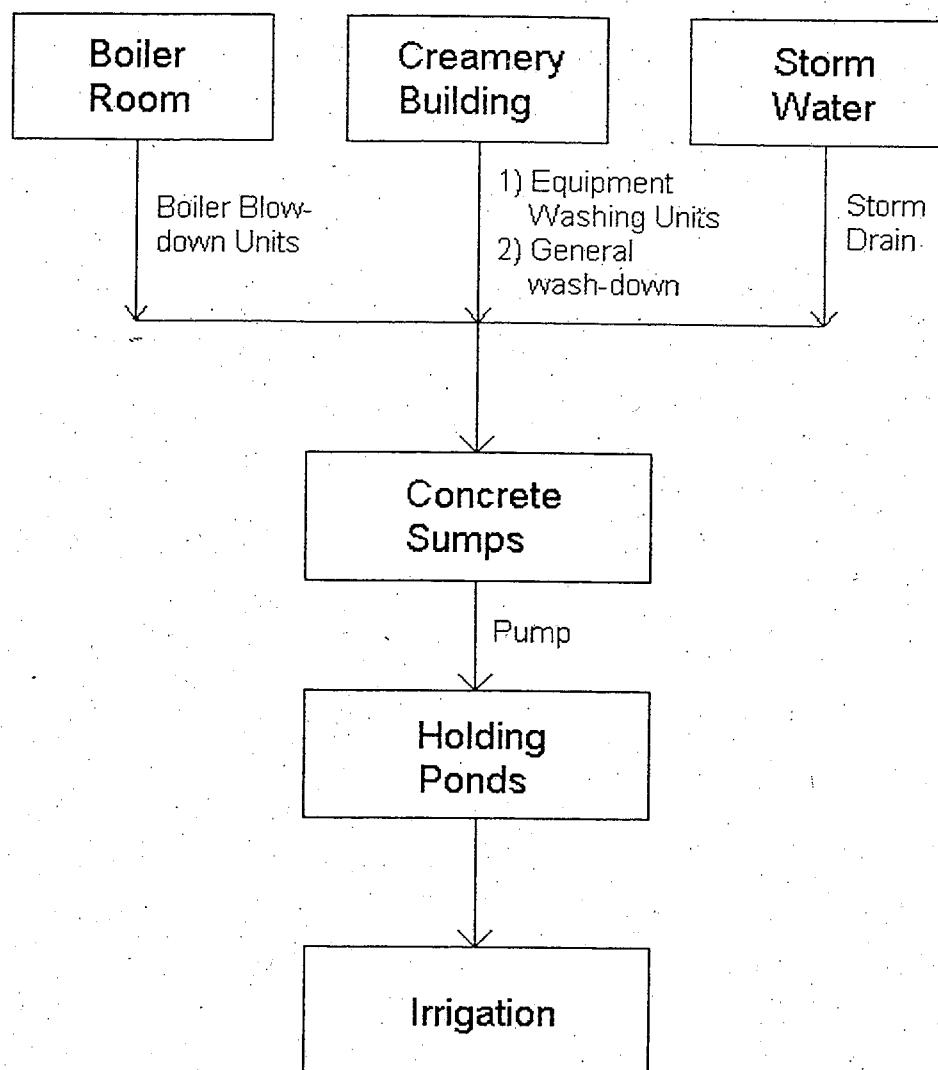


- Water Well
- Septic Tanks
- Leach Field
- Streets
- Automotive Garage
- Boilers
- Creamery - Milk Processing
- Crop Area
- Laboratory and Refrigeration
- Lavatory
- Manure and Storage Handling
- Milk Receiving
- Office
- Parking and Driveway
- Pasture Grass Area
- Shop
- Storage
- Sump With Pump to Pond
- Wastewater Pond
- Wastewater Pond
- Wastewater Pond

Category	100	0	100	200	300
No	100	0	100	200	300
Small	0	100	0	0	0
Medium	100	0	100	0	0
Big	0	0	0	100	0
Very big	0	0	0	0	100

WOLFE RD

# Wastewater Flow Chart



**Figure 3**

STATE OF CALIFORNIA  
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LOS ANGELES REGION

MONITORING AND REPORTING PROGRAM NO. CI-5982  
FOR  
CHASE BROTHERS DAIRY  
(File No. 72-102)

I. REPORTING REQUIREMENTS

- A. The Discharger shall implement this monitoring program on the effective date of this order. The first monitoring report under this Program is due by July 15, 2001.

Monitoring reports shall be received by the dates in the following schedule:

<u>Reporting Period</u>	<u>Report Due</u>
January - March	April 15
April - June	July 15
July - September	October 15
October - December	January 15
Annual Summary Report	March 1 of each year

- B. If there is no discharge, during any reporting period, the report shall so state. Monitoring reports must be addressed to the Regional Board, Attention: Information Technology Unit.
- C. The Discharger shall submit an annual summary report to the Regional Board. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous calendar year. In addition, the Discharger shall discuss the compliance record and the corrective actions taken or planned, which may be needed to bring the discharge into full compliance with the waste discharge requirements.
- D. Laboratory analyses – all chemical, bacteriological, and toxicity analyses shall be conducted at a laboratory certified for such analyses by the California Department of Health Services Environmental Laboratory Accreditation Program (ELAP). A copy of the laboratory certification shall be provided each time a new and/or renewal is obtained from ELAP.
- E. The method limits (MLs) employed for effluent analyses shall be lower than the permit limits established for a given parameter, unless the Discharger can demonstrate that a particular ML is not attainable and obtains approval for a higher ML from the Executive Officer. At least once a year, the Discharger shall submit a list of the analytical methods employed for each test and the associated laboratory QA/QC procedures.
- F. Water/wastewater samples must be analyzed within allowable holding time limits as specified in 40 CFR Part 136.3. All QA/QC samples must be run

on the same dates when samples were actually analyzed, and the results must be reported on the Regional Board format, if available, and submitted with the laboratory reports.

Proper chain of custody procedures must be followed and a copy of the chain of custody shall be submitted with the report.

- G. Each monitoring report must affirm in writing that "All analyses were conducted at a laboratory certified for such analyses by the California Department of Health Services, and in accordance with current USEPA guideline procedures or as specified in this Monitoring Program."
- H. For every item where the requirements are not met, the Discharger shall submit a statement of the cause(s), and actions undertaken or proposed which will bring the discharge into full compliance with waste discharge requirements at the earliest possible time, including a timetable for implementation of those actions.
- I. The Discharger shall maintain all sampling and analytical results, including strip charts; date; exact place, and time of sampling; dates analyses were performed; analyst's name; analytical techniques used; and results of all analyses. Such records shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge, or when requested by the Regional Board.
- J. 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 to demonstrate compliance with the requirements and, where applicable, shall include results of receiving water observations.
- K. Each quarterly monitoring report shall include the approximate acreage used for irrigation.

## II. WASTEWATER MONITORING PROGRAM FOR HOLDING PONDS

A sampling station shall be established where representative samples of wastewater can be obtained. Wastewater samples may be obtained at a single station provided that station is representative of the quality at all discharge points. Each sampling station shall be identified.

The following shall constitute the wastewater monitoring program for the wastewater discharged to the holding ponds:

<u>Constituents</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Analysis</u>
Total flow	gal/day	-----	continuous
pH	pH Units	grab	quarterly
Temperature	°F	grab	quarterly
Total dissolved solids	mg/L	grab	quarterly
Sulfate	mg/L	grab	quarterly
Chloride	mg/L	grab	quarterly
Nitrate-N	mg/L	grab	quarterly
Nitrite-N	mg/L	grab	quarterly
Fluoride	mg/L	grab	quarterly
Priority pollutant scan*	µg/L	grab	annually

\*Priority Pollutants are listed in Attachment A

### III. RECYCLED WATER MONITORING

A sampling station shall be established where representative samples of recycled water can be obtained. Recycled water samples may be obtained at a single station provided that station is representative of the quality at all discharge points. Each sampling station shall be identified.

The following shall constitute the recycled water monitoring program:

<u>Constituents</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Analysis</u>
Total flow	gal/day	-----	continuous

### IV. MONITORING PROGRAM FOR SEPTIC DISPOSAL SYSTEMS

#### A. Septic Tank/Leach Field Monitoring

1. A sampling station shall be established at a location where representative samples of wastewater can be obtained prior to discharge to the disposal system. The following shall constitute the monitoring program:

<u>Constituents</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Analysis</u>
Total and fecal coliform	MPN/100mL	grab	quarterly
Enterococcus	MPN/100mL	grab	quarterly

2. The quarterly reports shall contain the following information:
  - a. Average and maximum daily waste flow for each month of the quarter, in gallons per day.
  - b. Estimated population served during each month of the reporting period.
  - c. A statement relative to compliance with waste discharge requirements during the reporting period.
  - d. Results of at least quarterly observations in the disposal area for any over flow or surfacing of wastes.

In the event that septage is hauled to a legal disposal site, the name and address of the hauler of the septage shall be reported, along with the quantity hauled during the reporting period and the location of the final point of disposal. For purposes of this requirement, a legal disposal site is one for which requirements have been established by a California Regional Water Quality Control Board and which is in full compliance therewith. If no septage is hauled during the reporting period, a statement to that effect shall be submitted.

3. In addition, the Discharger shall annually submit an operation and maintenance report on the septic systems. The information to be contained in the report shall include, at a minimum, the following:
  - a. The name and address of the person or company responsible for the operation and maintenance of the facility;
  - b. Type of maintenance (preventive or corrective action performed);
  - c. Frequency of maintenance, if preventive;
  - d. Periodic pumping out of the septic tanks; and
  - e. Maintenance records of the septic disposal system.

B. Groundwater Monitoring

A groundwater monitoring program shall be designed to detect and evaluate impacts from wastewater discharges from the septic tank/ leach field systems. A groundwater monitoring workplan must be submitted to this Regional Board within 60 days from the date of this Order and is subject to the Executive Officer's approval prior to implementation. The groundwater monitoring wells must be installed in such a way so as to assess the background groundwater quality and downgradient groundwater quality. The plan shall include the exact location of the proposed wells, depths, construction of wells, schedule for the installation and proposed sampling of the wells.



The monitoring program must be prepared under the direction of a California Registered Geologist, or Certified Engineering Geologist, or a California Registered Civil Engineer with appropriate experience in hydrogeology.

The following shall constitute the groundwater monitoring program:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Analysis</u>
pH	pH units	grab	quarterly
Ammonia-N	mg/L	grab	quarterly
Nitrate-N	mg/L	grab	quarterly
Nitrite-N	mg/L	grab	quarterly
Organic Nitrogen	mg/L	grab	quarterly
Total dissolved solids	mg/L	grab	quarterly
Sulfate	mg/L	grab	quarterly
Chloride	mg/L	grab	quarterly
Fluoride	mg/L	grab	quarterly

Basic information that must be included with all groundwater monitoring and reporting includes the following:

- Well identification, date and time of sampling;
- Sampler identification, laboratory identification; and chain of custody;
- Water temperature (in field);
- Quarterly observations of groundwater levels, recorded to .01 feet mean sea level; and
- Vertical separation of the water table from the bottom of the septic tanks.

#### V. WASTE HAULING REPORTING

In the event that waste sludge, septage, or other wastes are hauled offsite, the name and address of the hauler shall be reported, along with types and quantities hauled during the reporting period and the location of final point of disposal. In the event that no wastes are hauled during the reporting period, a statement to that effect shall be submitted.

#### VI. CERTIFICATION STATEMENT

Each report shall contain the following completed declaration:

"I certify under penalty of law that this document, including all attachments and supplemental information, were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment.


Executed on the \_\_\_\_\_ day of \_\_\_\_\_ at \_\_\_\_\_.

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Title)"

These records and reports are public documents and shall be made available for inspection during normal business hours at the office of the California Regional Water Quality Control Board, Los Angeles Region.

Ordered by:

  
Dennis A. Dickerson  
Executive Officer

May 24, 2001

# PRIORITY POLLUTANTS

## Metals

Antimony  
Arsenic  
Beryllium  
Cadmium  
Chromium  
Copper  
Lead  
Mercury  
Nickel  
Selenium  
Silver  
Thallium  
Zinc

## Miscellaneous

Cyanide  
Asbestos (only if  
specifically  
required)

## Pesticides & PCBs

Aldrin  
Chlordane  
Dieldrin  
4,4'-DDT  
4,4'-DDE  
4,4'-DDD  
Alpha-endosulfan  
Beta-endosulfan  
Endosulfan sulfate  
Endrin  
Endrin aldehyde  
Heptachlor  
Heptachlor epoxide  
Alpha-BHC  
Beta-BHC  
Gamma-BHC  
Delta-BHC  
Toxaphene  
PCB 1016  
PCB 1221  
PCB 1232  
PCB 1242  
PCB 1248  
PCB 1254  
PCB 1260

## Base/Neutral Extractibles

Acenaphthene  
Benzidine  
1,2,4-trichlorobenzene  
Hexachlorobenzene  
Hexachloroethane  
Bis(2-chloroethyl) ether  
2-chloronaphthalene  
1,2-dichlorobenzene  
1,3-dichlorobenzene  
1,4-dichlorobenzene  
3,3'-dichlorobenzidine  
2,4-dinitrotoluene  
2,6-dinitrotoluene  
1,2-diphenylhydrazine  
Fluoranthene  
4-chlorophenyl phenyl ether  
4-bromophenyl phenyl ether  
Bis(2-chloroisopropyl) ether  
Bis(2-chloroethoxy) methane  
Hexachlorobutadiene  
Hexachlorocyclopentadiene  
Isophorone  
Naphthalene  
Nitrobenzene  
N-nitrosodimethylamine  
N-nitrosodi-n-propylamine  
N-nitrosodiphenylamine  
Bis (2-ethylhexyl) phthalate  
Butyl benzyl phthalate  
Di-n-butyl phthalate  
Di-n-octyl phthalate  
Diethyl phthalate  
Dimethyl phthalate  
Benzo(a) anthracene  
Benzo(a) pyrene  
Benzo(b) fluoranthene  
Benzo(k) fluoranthene  
Chrysene  
Acenaphthylene  
Anthracene  
1,12-benzoperylene  
Fluorene  
Phenanthrene  
1,2,5,6-dibenzanthracene  
Indeno (1,2,3-cd) pyrene  
Pyrene  
TCDD

## Acid Extractibles

2,4,6-trichlorophenol  
P-chloro-m-cresol  
2-chlorophenol  
2,4-dichlorophenol  
2,4-dimethylphenol  
2-nitrophenol  
4-nitrophenol  
2,4-dinitrophenol  
4,6-dinitro-o-cresol  
Pentachlorophenol  
Phenol

## Volatile Organics

Acrolein  
Acrylonitrile  
Benzene  
Carbon tetrachloride  
Chlorobenzene  
1,2-dichloroethane  
1,1,1-trichloroethane  
1,1-dichloroethane  
1,1,2-trichloroethane  
1,1,2,2-tetrachloroethane  
Chloroethane  
Chloroform  
1,1-dichloroethylene  
1,2-trans-dichloroethylene  
1,2-dichloropropane  
1,3-dichloropropylene  
Ethylbenzene  
Methylene chloride  
Methyl chloride  
Methyl bromide  
Bromoform  
Dichlorobromomethane  
Chlorodibromomethane  
Tetrachloroethylene  
Toluene  
Trichloroethylene  
Vinyl chloride  
2-chloroethyl vinyl ether  
Xylene