

## Attachment E – Monitoring and Reporting Program

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## **ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)**

The Code of Federal Regulations (CFR) at 40 CFR 122.48 requires that all NPDES permits specify monitoring and reporting requirements. CWC sections 13267 and 13383 authorize the Regional Water Quality Control Board to require technical and monitoring reports. This Monitoring and Reporting Program establishes monitoring and reporting requirements to implement the federal and California regulations.

40 CFR 122.42(e)(4) establishes annual reporting requirements for CAFOs regarding current animal counts, estimated annual amount of wastes generated, manure handling, the land application of manure, wastewater irrigation, and the nutrient management plan (NMP). These monitoring requirements have been established in this Monitoring and Reporting Program (MRP).

40 CFR 122.42 (e)(3) establishes requirements relating to the transfer of manure or process wastewater to other persons. The Discharger must retain records of the date, recipient name and address, and the approximate amount of manure, or process wastewater transferred to another person. These monitoring requirements have been established in this MRP.

40 CFR 412.37 (a)(1) establishes requirements for visual inspections of the CAFO production area. These monitoring requirements have been established in Section IV.A. of this MRP.

40 CFR 412.37 (c) establishes recordkeeping requirements for the land application of manure. These monitoring requirements have been established in this MRP.

### **I. GENERAL MONITORING PROVISIONS**

- A. Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring locations specified below and, unless otherwise specified, before the monitored flow joins or is diluted by any other waste stream, body of water, or substance. Monitoring locations shall not be changed without notification to and the approval of this Regional Board.
- B. Monitoring must be conducted according to United States Environmental Protection Agency (U.S. EPA) test procedures approved under Title 40, United States Code of Federal Regulations (CFR), Part 136, *Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act* as amended, unless other test procedures are specified in Order No. R9-2007-0009 and /or this MRP and/or this Regional Board.
- C. A copy of the monitoring reports signed and certified as required by Reporting Requirement V.B. of Attachment D of Order No. R9-2007-0009, shall be submitted to the Regional Board at the address listed in Section V.C.6 of this Monitoring and Reporting Program.

- D. The Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by Order No. R9-2007-0009 and this Monitoring and Reporting Program, records of all data used to complete the application for Order No. R9-2007-0009 and all other records specified in this Monitoring and Reporting Program. Records shall be maintained for a minimum of five years from the date of the sample, measurement, observation, report, or application. This period may be extended by request of this Regional Board by the U.S. EPA at any time.
- E. All analyses shall be performed in a laboratory certified to perform such analyses by the California Department of Health Services to perform such analyses or a laboratory approved by this Regional Board.
- F. Records of monitoring information shall include information required under Standard Provision, Attachment D, Section IV.
- G. All monitoring instruments and devices used by the discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy. All flow measurement devices shall be calibrated at least once per year to ensure continued accuracy of the devices.
- H. Monitoring results shall be reported at intervals -in a manner specified in Order No. R9-2007-0009 or in this Monitoring and Reporting Program.
- I. This Monitoring and Reporting Program may be modified by this Regional Board, as appropriate.

## II. MONITORING LOCATIONS

The Discharger shall establish the monitoring locations listed in *Table 2. Groundwater Monitoring Stations* to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in this Order:

**Table 1. Groundwater Monitoring Stations**

<b>Well Monitoring Station</b>	<b>Monitoring Location Name</b>	<b>Monitoring Location Description</b>
001	G-001	<b>Domenigoni Well</b>
002	G-002	<b>Stiefel Well</b>
003	G-003	<b>Wesselink Well</b>

## III. RECEIVING WATER MONITORING REQUIREMENTS

**A. Ground Water Monitoring Requirements.** To determine compliance with water quality objectives in the underlying aquifer, ground water monitoring must be conducted according to the following procedures unless this Regional Board approves alternative procedures:

1. The well must be pumped for a minimum of three volumes of the well casing before the sample is taken. If the well casing volume is not known, then three hundred gallons must be pumped before a sample is taken.
2. The grab sample must be collected in a container approved by the laboratory doing the analysis. The containers must be suitable for collecting nitrate and total dissolved solids samples.
3. The samples must be preserved in a container cooled to 4° Celsius.
4. The sample must be analyzed within 48-hours from the time the sample was taken.
5. The sample must be taken each year between September 1<sup>st</sup> and October 31<sup>st</sup>.
6. The ground water sample shall not be diluted by any other waste stream, body of water, or substance.

**B. Monitoring Locations G-001 (Domenigoni Well), G-002 (Stiefel Well), and G-003 (Wesselink Well)**

1. The Discharger shall monitor the groundwater at G-001, G-002, and G-003 in accordance with *Table 2. Groundwater Monitoring Requirements*.

**Table 2. Groundwater Monitoring Requirements.**

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Test Method
Total Dissolved Solids	mg/L	Grab	Annual	1
Nitrate as N	mg/L	Grab	Annual	1
Boron	mg/L	Grab	Once per 5 years	1
Sodium	mg/L	Grab	Once per 5 years	1
Magnesium	mg/L	Grab	Once per 5 years	1
Calcium	mg/L	Grab	Once per 5 years	1
Sodium Adsorption Ratio (adjusted)	----	Calculated	Once per 5 years	Calculated

<sup>1</sup> As specified in 40 CFR 136.3

#### IV. OTHER MONITORING REQUIREMENTS

##### A. Visual Inspections

40 CFR 412.37 requires visual inspections of the CAFO production area. At a minimum, the following visual observations shall be made and recorded.

1. Daily inspections shall be conducted of all water lines, including drinking water and wastewater.
2. Weekly inspections shall be conducted of all storm water diversion devices, runoff diversion structures, and devices channeling containment structures.
3. Weekly inspections shall be conducted of all manure and process wastewater impoundments. The inspection shall note the level in liquid impoundments as indicated by the required depth marker.

##### B. Manure Monitoring

Annually, the Discharger shall analyze manure for nutrient content (nitrogen and phosphorus) and submit the results in the annual report.

##### C. Regional Watershed Monitoring

The Discharger shall participate and coordinate with state and local agencies and other dischargers in the San Diego Region in development and implementation of a regional monitoring program as directed by the Regional Board. The intent of a regional monitoring program is to maximize the efforts of all monitoring partners using a more cost-effective monitoring design and to best utilize the pooled resources of the region

## **D. Special Studies**

Core monitoring may include intake monitoring, effluent monitoring, receiving water monitoring, and groundwater monitoring. This Order includes core monitoring for groundwater. In addition to core monitoring requirements, the Discharger may be required to conduct additional monitoring. Special studies are intended to be short-term and designed to address specific research or management issues that are not addressed by the routine core monitoring program. The Discharger shall implement special studies as directed by this Regional Board.

## **V. REPORTING REQUIREMENTS**

### **A. General Monitoring and Reporting Requirements**

1. The Discharger shall comply with all Standard Provisions related to monitoring, reporting, and recordkeeping and the general monitoring and reporting requirements below. In cases where the monitoring and reporting requirements contained within this section, and the Standard Provisions conflict, the more stringent of the two requirements apply.
2. Annually, the discharger shall evaluate the data collected pursuant to Monitoring and Reporting Program Attachment E, and determine if the data indicates that the discharge has caused or contributed to an exceedance of applicable water quality objectives or impairment of water quality needed for designated beneficial uses of the Domenigoni Subarea (902.35) of the Murrieta Hydrologic Area (902.30) of the Santa Margarita Hydrologic Unit (902.00).
3. The discharger shall file a new Report of Waste Discharge not less than 180 days prior to the following:
  - a. Addition of any industrial waste to the discharge or the addition of a new process or product resulting in a change in the character of the wastes.
  - b. Significant change in disposal method (e.g. change in the method of treatment which would significantly alter the nature of the waste).
  - c. Significant change in disposal area (e.g. moving the discharge to a disposal area significantly removed from the original area, potentially causing different water quality or nuisance problems).
  - d. Increase in flow beyond that specified in this Order.
  - e. Other circumstances, which result in a material change in character, amount, or location of the waste discharge.

4. The discharger must notify this Regional Board, in writing, at least 30 days in advance of any proposed transfer of this facility to a new discharger. The notice must include a written agreement between the existing and new discharger containing a specific date for the transfer of this Order's responsibility and coverage between the current discharger and the new discharger. This agreement shall include an acknowledgment that the existing discharger is liable for violations up to the transfer date and that the new discharger is liable after the transfer date.
5. Except for data determined to be confidential under 40 CFR Part 2, all reports prepared in accordance with the terms of this Order shall be available for public inspection at the offices of the California Regional Water Quality Control Board, San Diego Region and the United States Environmental Protection Agency, Region IX. As required by the Clean Water Act, Reports of Waste Discharge, this Order, and effluent monitoring data shall not be considered confidential.

## **B. Annual Report**

The Discharger shall submit an annual report containing the following:

1. All information specified in 40 CFR 122.42 (e)(4), including:
  - a. The number of mature milking cows, dairy heifers, dry cows, and calves.
  - b. Estimated amount of total manure and process wastewater generated by the facility in the previous 12 months.
  - c. Estimated amount of total manure and process wastewater transferred to other persons by the facility in the previous 12 months.
  - d. Summary of all manure and process wastewater discharges from the production area that have occurred in the previous 12 months, including date, time, and approximate volume.
  - e. A statement indicating whether the current version of the facility's NMP is up-to-date and certified by a nutrient management planner or other authorized individual.
2. Ground water monitoring results, as specified in Part III.A. of this MRP.
3. Manure monitoring results, as specified in Section IV.B of this MRP.

The reporting requirements above shall be summarized and submitted on the Self Monitoring Form, located in Section V.E. of this MRP. The correct completion and submittal of the Self Monitoring Form, with all specified attachments, shall satisfy the annual reporting requirements specified in this Section.

**C. Self Monitoring Reports**

1. The Discharger shall submit annual Self Monitoring Reports including the results of all required monitoring and monitoring conducted in addition to the minimum required monitoring using USEPA approved test methods or other test methods specified in this MRP. Annual reports shall be due on February 1st following each annual period.
2. Monitoring periods for all required monitoring shall commence according to *Table 3. Monitoring and Reporting Schedule*.

**Table 3. Monitoring and Reporting Schedule**

Sampling Frequency	Monitoring Period Starts On	Monitoring Period	Reporting Due with SMR on
Annual	December 13, 2006	January 1 – December 31	February 1
1/ 5 years	December 13, 2006	During the term of the permit	December 13, 2011

3. The Discharger shall report with each sample result the applicable Minimum Level (ML) and the laboratory current Method Detection Limit (MDL) as determined by the procedure in 40 CFR Part 136.
4. The Discharger shall submit data on a copy of the Monitoring and Reporting Form provided in Section V.E. of this Monitoring and Reporting Program. Additional data, and data required to be submitted as an attachment to the reporting form must be arranged in tabular form so that the specified information is readily discernible. The data shall be summarized in such a manner as to clearly illustrate whether the facility is operating in compliance with Waste Discharge Requirements.
6. The Discharger shall attach a cover letter to its Self Monitoring Report. The information contained in the cover letter shall clearly identify violations of the WDRs, discuss corrective actions taken or planned and the proposed time schedule of corrective actions. Identified violations should include a description of the requirement that was violated and a description of the violation. Monitoring results must be reported on forms approved by this Regional Board. Self Monitoring Reports shall be submitted to the addresses listed in *Table 4. Regional Board Address*.

**Table 4. Regional Board Address**

<b>Submit monitoring reports to:</b>
California Regional Water Quality Control Board San Diego Region 9174 Sky Park Court, Suite 100 San Diego, California 92123-4340 Attention: Northern Core Regulatory Unit



Notifications required to be provided to this Regional Board shall be made to:

Telephone – (858) 467-2952 or  
Facsimile – (858) 571-6972

#### **D. Additional Record Keeping Requirements Specific to CAFOs**

40 CFR 122 and 412 establish record keeping requirements specific to CAFOs. The Discharger is not required to submit the following information to the Regional Board, however the Discharger must maintain these records on-site and available for review by a designated U.S. EPA or Regional Board representative.

1. As specified in 40 CFR 122.42 (e)(3), the Discharger shall retain the following records for the transfer of manure or process wastewater to other persons. These records must be maintained on-site for a minimum of 5 years:
  - a. Date of transfer.
  - b. Recipient's name (or company name).
  - c. Recipient's address (or company address).
  - d. The approximate quantity of manure, or process wastewater transferred.
2. As specified in 40 CFR 412.37 (b), the Discharger shall retain the following records for a minimum of 5 years:
  - a. Records documenting the visual inspections specified in Section IV.A. of this MRP.
  - b. Records documenting any actions taken to correct deficiencies found as a result of the visual inspections specified in Section IV.A. of this MRP.
  - c. Records of mortalities management practices.
  - d. Records documenting the current design of any manure storage structures, including volume for solids accumulation, design treatment volume, total design volume, and approximate number of days of storage capacity.
  - e. Records of the date, time, and estimated volume of any overflows that occurred at the facility.

#### **E. Self Monitoring Form**

As specified in section V.C.4 of this Monitoring and Reporting Program, the Discharger shall submit data to the Regional Board using a copy of the Monitoring

and Reporting Form provided on the next seven pages of this document. Additional monitoring data -should be submitted as an attachment to the Monitoring and Reporting Form.

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
REGION 9, SAN DIEGO REGION  
MONITORING AND REPORTING FORM  
ORDER NO. R9-2007-0009  
NPDES PERMIT NO. CA0109011**

Annual Self Monitoring Report for January 1, \_\_\_\_\_ to December 31, \_\_\_\_\_ Due by February 1<sup>st</sup> of each year.

Date \_\_\_\_/\_\_\_\_/\_\_\_\_

**Directions:**

1. Respond to all questions. If a question does not pertain to your facility, write "Not Applicable" in the space provided.
2. Attach additional pages if necessary to further demonstrate compliance with waste discharge requirements or to answer any questions in greater detail.
3. Make copies of this form for annual reporting, identifying the monitoring period on the line at the top of the page, and save the original as a master copy for future reporting.

**Name and Address Changes:**

Note any changes or corrections to the following:

- |                      |                                            |
|----------------------|--------------------------------------------|
| 1. Name of facility: | Jack and Mark Stiefel Dairy                |
| Address:             | 32750 Holland Road<br>Winchester, CA 92596 |
| Phone Number:        | (951) 927-1247                             |
| 2. Name of owner:    | Mr. Mark Stiefel                           |
| Address:             | 32750 Holland Road<br>Winchester, CA 92596 |
| Phone Number:        | (951) 927-1247                             |
| 3. Facility Contact: | Mr. Mark Stiefel                           |
| Phone Number:        | (951) 927-1247                             |

**Animal Counts:**

January 1, \_\_\_\_\_ to December 31, \_\_\_\_\_

Report the maximum number of animals during the year.

- 1. Milking cows \_\_\_\_\_
  - 2. Heifers \_\_\_\_\_
  - 3. Dry cows \_\_\_\_\_
  - 4. Calves \_\_\_\_\_
- 

**Manure and Wastewater Disposal:**

Report the total quantity of manure produced during the year and how the manure was disposed of during the year as of December 31<sup>st</sup>.

- 1. Total quantity of solid manure produced during the year: \_\_\_\_\_ cu. yds.
- 2. Total quantity of solid manure disposed on land owned or under the control of the dairy owner/operator: \_\_\_\_\_ cu. yds.

Number of acres manure applied to: \_\_\_\_\_ acres

Type of crop(s) grown: \_\_\_\_\_

- 3. Total quantity of solid manure sold or given away to public: \_\_\_\_\_ cu. yds.
- 4. Manure stockpiled on-site on December 31 (of this reporting period): \_\_\_\_\_ cu. yds.
- 5. Total volume of wastewater used for land irrigation: \_\_\_\_\_ ac.-ft.

Number of acres irrigated with wastewater: \_\_\_\_\_ acres

Type of crop(s) grown: \_\_\_\_\_

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**Waste Management Program:** January 1, \_\_\_\_\_ to December 31, \_\_\_\_\_

The Discharger shall describe in detail any changes to the waste collection, management or disposal system during the past year. If physical changes have occurred, submit a map showing the new facilities. Include volumes, square feet, etc...

- No changes to the waste management facilities and operations occurred during the year, or
  - The following changes have been made (attach additional sheets if necessary):
- 

**Ground Water Monitoring:**

Complete the following and attach a copy of the laboratory's analysis sheet.

1. Was the groundwater monitoring conducted according to the procedures prescribed in Part VIII of the Monitoring and Reporting Program?
  - Yes
  - No, the procedures were modified as follows:

2. Fill in the appropriate sampling information (Sample must be taken between September 1 and October 31):

Date sampled: \_\_\_\_\_  
Time sampled: \_\_\_\_\_  
Name of individual who performed sampling: \_\_\_\_\_  
Date analyses were performed: \_\_\_\_\_

3. Fill in the appropriate tables with the g 

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Sample Point G-001 (Domenigoni Well)

Constituent	Sample Type	Minimum Sampling Frequency	Results	Units
Total Dissolved Solids	Grab	Annual		mg/L
Nitrate (N)	Grab	Annual		mg/L
Boron	Grab	Once per 5 years		mg/L
Sodium	Grab	Once per 5 years		mg/L
Magnesium	Grab	Once per 5 years		mg/L
Calcium	Grab	Once per 5 years		mg/L
Sodium Adsorption Ration (adjusted)	Calculated	Once per 5 years		Units

Sample Point G-002 (Stiefel Well)

Constituent	Sample Type	Minimum Sampling Frequency	Results	Units
Total Dissolved Solids	Grab	Annual		mg/L
Nitrate (N)	Grab	Annual		mg/L
Boron	Grab	Once per 5 years		mg/L
Sodium	Grab	Once per 5 years		mg/L
Magnesium	Grab	Once per 5 years		mg/L
Calcium	Grab	Once per 5 years		mg/L
Sodium Adsorption Ration (adjusted)	Calculated	Once per 5 years		Units

Sample Point G-003 (Wesselink Well)

Constituent	Sample Type	Minimum Sampling Frequency	Results	Units
Total Dissolved Solids	Grab	Annual		mg/L
Nitrate (N)	Grab	Annual		mg/L
Boron	Grab	Once per 5 years		mg/L
Sodium	Grab	Once per 5 years		mg/L
Magnesium	Grab	Once per 5 years		mg/L
Calcium	Grab	Once per 5 years		mg/L
Sodium Adsorption Ration (adjusted)	Calculated	Once per 5 years		Units

**Manure Monitoring:**

Complete the following and attach a copy of the laboratory's analysis sheet(s).

1. Was the manure monitoring conducted according to the procedures prescribed in Section IV.B. of the Monitoring and Reporting Program?

- Yes
- No, please explain.

2. Fill in the appropriate sampling information:

Date sampled: \_\_\_\_\_  
Time sampled: \_\_\_\_\_  
Name of individual who performed sampling: \_\_\_\_\_  
Date analyses were performed: \_\_\_\_\_

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**Soil Monitoring (required once over the life of the permit, must be submitted at least one year prior to the expiration date of the permit):**

Complete the following and attach a copy of the laboratory's analysis sheet(s).

1. Was the soil monitoring conducted according to the procedures prescribed in Section IV.C. of the Monitoring and Reporting Program?

- Yes
- No, please explain.

2. Fill in the appropriate sampling information:

Date sampled: \_\_\_\_\_  
Time sampled: \_\_\_\_\_  
Name of individual who performed sampling: \_\_\_\_\_  
Date analyses were performed: \_\_\_\_\_

**Compliance Statement:**

The Discharger shall discuss the dairy's compliance with Order No. R9-2007-0009. Review compliance statements below and check the appropriate box. You should include any pertinent information and describe any additional management measures or corrective actions taken or planned to achieve full compliance with the waste discharge requirements.

Compliance Statement	Yes	No
Were all monitoring instruments and devices used to fulfill the monitoring program properly maintained and calibrated to ensure their continued accuracy?		
Were all discharges of wastes, including windblown spray and runoff of effluent applied for irrigation, to lands which have been specifically described to the Regional Board and for which valid waste discharge requirements are in force? If no, please explain.		
Did the waste water or waste solids disposal operation cause any unusual odors or other nuisances beyond the limits of the dairy property? If yes, please explain.		
Were all facilities and systems of waste disposal (and related appurtenances), which are installed to achieve compliance with the conditions of the Order properly operated and maintained? If no, please explain.		
Were manured areas maintained to prevent nuisance conditions and managed to minimize infiltration of water into underlying soils, If no, please explain.		
To the best of your knowledge, was manure hauled off the dairy property properly disposed of to ensure that the water quality is not adversely affected in the area?		
Was the application of manure and wastewater to the disposal fields controlled by the Discharger to comply with agronomic rates? If no, please explain.		
Was dry manure applied to cultivated croplands incorporated into the soil soon after application? If no, please explain.		
Were animals prevented from entering any surface water within the confined area? If no, please explain.		
Were water levels in the retention ponds sufficiently lowered by October 1 <sup>st</sup> to provide adequate storage capacity prior to the beginning of the wet weather periods? If no, please explain.		
Is an applicable signed and certified NMP, as specified in Section VI of the Order, maintained on-site at the dairy? If no, please explain.		
Are the additional records keeping requirements for CAFOs, specified in Section V.D. of the monitoring and reporting program, being maintained as required? If no, please explain?		

Comments:



**Additional Comments:**

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Certification Statement:

Pursuant to Section V.B. of Attachment D, this report must be signed and certified by the Discharger or a duly authorized representative of that person as follows:

*I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate 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 fine and imprisonment for knowing violations.*

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Signed under Penalty of Perjury

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Date

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Print Name