

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. R5-2002-0166  
FOR  
LAWRENCE M., ANTHONY R., AND JOSEPH J. NELES,  
dba NELES DAIRY  
TEHAMA COUNTY

This Monitoring and Reporting Program (MRP) describes requirements for monitoring the groundwater, wastewater, and cropland. This MRP is issued pursuant to Water Code Section 13267. The Discharge shall not implement any changes to this MRP unless and until a revised MRP is issued by the Executive Officer.

**RETENTION POND MONITORING**

The main wastewater retention pond shall be monitored as follows:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>
Freeboard <sup>1</sup>	Feet	Visual	Weekly
pH	Units	Grab	Monthly
Total Kjeldahl Nitrogen	mg/L	Grab	Monthly
Total Dissolved Solids	mg/L	Grab	Monthly
Specific Conductance	µmhos/cm	Grab	Monthly
General Minerals <sup>2</sup>	mg/L	Grab	Annually

<sup>1</sup> Freeboard is defined as the vertical distance from the lowest point on the berm to the liquid surface in the pond and shall be measured to the nearest 0.25 feet.

<sup>2</sup> General Minerals shall include Anions (F, Cl, NO<sub>2</sub>, NO<sub>3</sub>, Br, PO<sub>4</sub>, SO<sub>3</sub>, and SO<sub>4</sub>) and Cations (NH<sub>4</sub>, K, Ca, Pb, Cu, Zn, Cr, and Al). Results shall include a calculated ion balance in Me/L.

The heifer wastewater retention pond shall be monitored as follows:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>
Freeboard <sup>1</sup>	Feet	Visual	Weekly
pH	Units	Grab	Annually <sup>2</sup>
Total Kjeldahl Nitrogen	mg/L	Grab	Annually <sup>2</sup>
Total Dissolved Solids	mg/L	Grab	Annually <sup>2</sup>
Specific Conductance	µmhos/cm	Grab	Annually <sup>2</sup>
General Minerals	mg/L	Grab	Annually

<sup>1</sup> Freeboard is defined as the vertical distance from the lowest point on the berm to the liquid surface in the pond and shall be measured to the nearest 0.25 feet.

<sup>2</sup> If fields are irrigated directly from the heifer retention pond monitoring frequency shall be monthly for these constituents.

- <sup>3</sup> General Minerals shall include Anions (F, Cl, NO<sub>2</sub>, NO<sub>3</sub>, Br, PO<sub>4</sub>, SO<sub>3</sub>, and SO<sub>4</sub>) and Cations (NH<sub>4</sub>, K, Ca, Pb, Cu, Zn, Cr, and Al). Results shall include a calculated ion balance in Me/L.

### **GROUNDWATER MONITORING**

Ground water monitoring shall be conducted for all monitoring wells and all operational supply wells at the dairy. Monitoring for each of these well types shall be conducted in accordance with the following:

#### Monitoring Wells

Prior to sampling, groundwater elevations shall be measured and the wells shall be purged at least three well volumes. Groundwater elevations shall be calculated based on depth-to-water measurements taken to the nearest 0.01 foot and as measured from a surveyed measuring point elevation. Groundwater monitoring shall include, at a minimum, the following:

<u>Constituent</u> <sup>1</sup>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u> <sup>1</sup>
Depth to G.W.	Feet (nearest 0.01)	Visual	Quarterly
G.W. Elevation	Feet (nearest 0.01)	Visual	Quarterly
Total Dissolved Solids	mg/L	Grab	Quarterly
Specific Conductivity	µmhos/cm	Grab	Quarterly
Total Coliform	MPN/100ml	Grab	Quarterly
Nitrate N	mg/L	Grab	Quarterly
General Minerals <sup>2</sup>	mg/L	Grab	(See footnote <sup>3</sup> )

<sup>1</sup> The constituents and/or sampling frequency may be reduced upon approval of the Executive Officer after sufficient data is submitted to support groundwater quality and trends.

<sup>2</sup> General Minerals shall include Anions (F, Cl, NO<sub>2</sub>, NO<sub>3</sub>, Br, PO<sub>4</sub>, SO<sub>3</sub>, and SO<sub>4</sub>) and Cations (NH<sub>4</sub>, K, Ca, Pb, Cu, Zn, Cr, and Al). Results shall include a calculated ion balance in Me/L.

<sup>3</sup> Quarterly for the first year and annually thereafter.

#### Water Supply Wells

The Discharger shall conduct monitoring of the supply wells used at the dairy. Supply wells include all wells used for operations, irrigation, or domestic purposes at the dairy. The purpose of each well shall be identified. Wells used for operations (other than irrigation) may be sampled anytime well is in use. Irrigation wells are to be sampled prior to mixing with wastewater and when used for irrigating cropland. Domestic wells may be sampled at any time the well is in use. Water supply monitoring shall include at least the following:

<u>Constituent</u> <sup>1</sup>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u> <sup>1</sup>
Total Dissolved Solids	mg/L	Grab	One event
Specific Conductivity	µmhos/cm	Grab	One event
Total Coliform	MPN/100ml	Grab	One event
General Minerals <sup>2</sup>	mg/L	Grab	One event

<sup>1</sup> A minimum of two wells per year must be sampled so that all existing or new wells are sampled within the first five years of operation.

<sup>2</sup> General Minerals shall include Anions (F, Cl, NO<sub>2</sub>, NO<sub>3</sub>, Br, PO<sub>4</sub>, SO<sub>3</sub>, and SO<sub>4</sub>) and Cations (NH<sub>4</sub>, K, Ca, Pb, Cu, Zn, Cr, and Al). Results shall include a calculated ion balance in Me/L.

### **PRECIPITATION**

The daily precipitation shall be recorded with the readings taken at the same time each day. The precipitation information shall be submitted with the monthly monitoring report.

### **NUTRIENT AND WASTE IRRIGATION MANAGEMENT PLAN MONITORING**

The Discharger shall report the volume of retention pond wastewater applied to each irrigation field for each day in which an application took place. In addition the Discharger shall report the total pounds of N applied to each of the fields and the pounds of N per acre, using the TKN value for that month from the main retention pond sample. Wastewater application monitoring should be submitted with the monthly monitoring report.

By **30 January** of each year the Discharger shall submit an annual report containing the annual monitoring conducted as part of the Nutrient and Waste Irrigation Management Plan (NWIMP). This includes the animal type and count, soil testing, manure testing, crop information for each field, and plant testing. The report shall contain an assessment of the effectiveness of the NWIMP for the year and should address any proposed changes in monitoring, application rates, application methods or other modifications to the NWIMP.

### **OPERATION AND MAINTENANCE RECORDS**

The Discharger shall keep operation and maintenance records of activities conducted as part of the wastewater and manure solids management at the dairy. The Discharger shall inspect the waste holding and disposal areas and note any discharges from the property that is under control of the Discharger. Inspections shall be made daily when wastewater is being applied to cropland and weekly during other periods. During each significant storm event, the Discharger shall make

visual inspections of the retention ponds and all storm water containment structures and shall report the approximate time and duration of each storm related discharge that results in off-property discharges of storm water commingled with wastewater or manure. The results of all inspections should be recorded and submitted with the monthly monitoring report. The following items shall be documented:

1. Conditions of retention pond embankments and cropland berms, including rodent holes, piping, and bank erosion.
2. Dates and descriptions of maintenance activities associated with embankment or berm repair.
3. Dates and locations of wastewater irrigation.
4. Descriptions of erosion, field saturation, runoff, or the presence of nuisance conditions in the cropland.
5. Dates and estimated tonnage of solids scrapped from the corrals and dates, destination, and estimated tonnage of manure hauled off-site.

### **REPORTING**

Unless otherwise specified, monitoring results shall be submitted to the Regional Board by the **1<sup>st</sup> day of the second month** following sample collection. (i.e., the January report is due by 1 March). The report shall be submitted on forms provided by Regional Board staff.

The Discharger shall notify the Regional Board by telephone within 24 hours of any unauthorized discharge of wastes. This notification shall be followed by a written report that shall be submitted to the Regional Board within two weeks of the discharge. The written report shall contain:

- a. The approximate date and time of the discharge;
- b. The flow rate and duration of the discharge;
- c. The specific type and source of the waste dischargee (e.g., rainfall runoff from manure storage areas, runoff from irrigation fields, etc);
- d. A time schedule and a plan to implement necessary corrective actions to prevent the recurrence of the discharge.

If the Discharger monitors any pollutant at the locations designated herein more frequently than is required by this Order, the results of such monitoring shall be included in the calculation and reporting of the values required in the discharge monitoring report form. Such increased frequency shall be indicated on the discharge monitoring report form.

Monitoring reports shall be certified under penalty of perjury to be true and correct, and shall contain the required information at the frequency designated in this monitoring report. Each report shall contain the following statement:

*"I declare under the penalty of law that I personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment for knowing violations."*

A duly authorize representative of the Discharger may sign the report if:

- a. The authorization is made in writing by the person described above; and
- b. The authorization specifies an individual or person having the responsibility for the overall operation of the regulated disposal system; and
- c. The written authorization is submitted to the Regional Board's Executive Officer.

Reports shall be submitted to:

California Regional Water Quality Control Board  
Central Valley Region  
415 Knollcrest Drive, Suite 100  
Redding, CA 96002

The Discharger shall implement the above monitoring program as of the date of this Order.

Ordered by: \_\_\_\_\_  
THOMAS R. PINKOS, Acting Executive Officer

6 September 2002

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(Date)

JFR: