Nutrient Management Plan Report
General Order No. R5-2007-0035, Attachment C
July 1, 2009 deadline

DAIRY FACILITY INFORMATION

A. NAME OF DAIRY OR BUSINESS OPERATING THE DAIRY: Machado Dairy

Physical address of dairy:

7413 S Mitchell RD	Turlock	Stanislaus	95380
Number and Street	City	County	Zip Code

Street and nearest cross street (if no address):

Date facility was originally placed in operation: 01/01/1970

Regional Water Quality Control Board Basin Plan designation: San Joaquin River Basin

County Assessor Parcel Number(s) for dairy facility:

0057-0007-0004-0000 0057-0007-0005-0000 0057-0007-0006-0000

B. OPERATOR NAME: Machado, Isabel Telephone no.: (209) 634-5026 (Landline) (Cellular)

7413 S Mitchell RD	Turlock	CA	95380
Mailing Address Number and Street	City	State	Zip Code

Operator should receive Regional Board correspondence (check): [X] Yes [ ] No

C. LEGAL OWNER NAME: Machado, Isabel Telephone no.: (209) 634-5026 (Landline) (Cellular)

7413 S Mitchell RD	Turlock	CA	95380
Mailing Address Number and Street	City	State	Zip Code

Owner should receive Regional Board correspondence (check): [X] Yes [ ] No

D. CONTACT NAME: Sousa, Paul Telephone no.: (209) 527-6453 (Landline) (Cellular)

Title: Agronomist -CCA 34418

1315 K ST	Modesto	CA	95354
Mailing Address Number and Street	City	State	Zip Code

AVAILABLE NUTRIENTS

A. HERD INFORMATION

The milk cow dairy is currently regulated under individual Waste Discharge Requirements.

Total number of milk and dry cows combined as a baseline value in response to the Report of Waste Discharge (ROWD) request of October, 2005:

1,410 *milk and dry cows combined (regulatory review is required for any expansion)*

	Milk Cows	Dry Cows	Bred Heifers (15-24 mo.)	Heifers (7-14 mo. to breeding)	Calves (4-6 mo.)	Calves (0-3 mo.)
Present count	1,284	126	0	0	0	200
Maximum count	1,284	126	0	0	0	200
Avg live weight (lbs)	1,300	1,400	0	0		
Daily hours on flush	18	5	0	0	0	0

Predominant milk cow breed: Holstein

Average milk production: 72 *pounds per cow per day*

B. IRRIGATION SOURCES

Irrigation Source Name	Type	Nitrogen (mg/L)	Phosphorus (mg/L)	Potassium (mg/L)	Discharge Rate
Canal	Surface water (canal, river)	6.00	0.00	0.00	15 *cfs*

C. NUTRIENT IMPORTS

No nutrient imports entered.

D. NUTRIENT EXPORTS

Nutrient Type/Name	Quantity	Moisture	Nitrogen	Phosphorus (as P2O5)	Potassium (as K2O)
Solid Manure	1,998.50 *ton*	20.0%	3.000%	2.000%	3.500%
Liquid Manure	5,857,932.00 *gal*	0.0%	0.360%	0.160%	0.450%

Total nitrogen exported: 271,911.99 *lbs*

Total phosphorus exported: 62,127.03 *lbs*

Total potassium exported: 275,473.67 *lbs*

E. STORAGE PERIOD

Storage period is the maximum period of time anticipated between land application of process wastewater (from storage ponds/lagoons) to croplands. A qualified agronomist and civil engineer should collaborate and collectively consider predominant soil types, soil infiltration rates, maximum depth, available water, field capacity, permanent wilting point, allowable depletion, crop water use, evapotranspiration, precipitation, irrigation system capacity, water delivery constraints, crop nutrient requirements, soil nutrient adsorbtion/desorption, rooting depth, nutrient accumulation/availability for current and future crop needs, facility wide process wastewater storage capacity and other factors as deemed necessary across all croplands where process wastewater is applied in selecting a storage period. In many cases conflicts will arise between crop water demands, crop nutrient demands and insufficient process wastewater storage capacity. Process wastewater may not be the best choice as a source of either water and/or nutrients to meet crop demands throughout the year. Groundwater and surface water vulnerability has been considered.

The storage period selected in this Nutrient Management Plan is consistent with the storage period selected in the Waste Management Plan.

Storage period: 120 *days*

APPLICATION AREA

A. ASSESSOR PARCEL NUMBER: 0057-0007-0005-0000

Legal owner of parcel: Owned by Dairy

ASSESSOR PARCEL NUMBER: 0057-0007-0006-0000

Legal owner of parcel: Owned by Dairy

ASSESSOR PARCEL NUMBER: 0057-0023-0004-0000

Legal owner of parcel: Owned by Dairy

B. FIELD NAME: Field 1

Cropable acres: 38

Predominant soil type: Sandy loam

Do irrigation system head-to-head flow conditions exist on the field? [ ] Yes [X] No

Can fresh water for irrigation purposes be delived to the field year round? [ ] Yes [X] No

Can process wastewater be delivered to the field at agronomic rates and times? [X] Yes [ ] No

Tailwater management method: Returned to retention pond

Crops grown and rotation:

Crop Type	Plant Date	Harvest Date	Acres Planted
Oats, silage-soft dough	Middle November	Middle April	38
Corn, silage	Late April	Middle November	38

FIELD NAME: Field 2

Cropable acres: 38

Predominant soil type: Sandy loam

Do irrigation system head-to-head flow conditions exist on the field? [ ] Yes [X] No

Can fresh water for irrigation purposes be delived to the field year round? [ ] Yes [X] No

Can process wastewater be delivered to the field at agronomic rates and times? [X] Yes [ ] No

Tailwater management method: Returned to retention pond

Crops grown and rotation:

Crop Type	Plant Date	Harvest Date	Acres Planted
Oats, silage-soft dough	Middle November	Middle April	38
Corn, silage	Late April	Middle November	38

FIELD NAME: Field 3

Cropable acres: 38

Predominant soil type: Sandy loam

Do irrigation system head-to-head flow conditions exist on the field? [ ] Yes [X] No

Can fresh water for irrigation purposes be delived to the field year round? [ ] Yes [X] No

Can process wastewater be delivered to the field at agronomic rates and times? [X] Yes [ ] No

Tailwater management method: Returned to retention pond

Crops grown and rotation:

Crop Type	Plant Date	Harvest Date	Acres Planted
Oats, silage-soft dough	Late November	Middle April	38
Corn, silage	Late April	Middle November	38

C. LAND APPLICATION AREA FIELDS AND PARCELS

Field name	Cropable acres	Total harvests	Parcel number
Field 1	38	2	0057-0007-00050000
Field 2	38	2	0057-0007-00060000
Field 3	38	2	0057-0023-00040000
Land application area totals	114	6	

NUTRIENT BUDGET

A. NUTRIENT BUDGET FOR CROP: Field 1 / Oats, silage-soft dough

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
Pre-irrigation prior to planting (with fertilizer) *Nutrient source:* Retention pond (lagoon) *Application method:* Pipeline	1	89.0 75%	15.0 50%	65.0 80%	94.9
In season irrigation (with fertilizer) *Nutrient source:* Retention pond (lagoon) *Application method:* Pipeline	2	56.0 75%	15.0 50%	70.0 80%	121.6

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Canal	5.9	0.0	0.0	11.0
	5.9	0.0	0.0	

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Canal	4.8	0.0	0.0	9.0
	4.8	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	15.4	0.0	0.0
Existing soil nutrient content	0.0	0.0	0.0
Plowdown credit	0.0	0.0	0.0
Commercial fertilizer	0.0	0.0	0.0
Dry manure	0.0	0.0	0.0
Liquid manure	201.0	45.0	205.0
Other	0.0	0.0	0.0
Atmospheric deposition	7.0		
Nutrients applied	223.4	45.0	205.0
Potential crop nutrient removal	160.0	25.6	132.8
Nutrient balance	63.4	19.4	72.2
Applied to removal ratio	1.40	1.76	1.54

Fresh water applied: 0.95 *feet* Total harvests: 1

NUTRIENT BUDGET FOR CROP: Field 1 / Corn, silage

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)

NUTRIENT BUDGET FOR CROP (CONTINUED): Field 1 / Corn, silage

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
Pre-irrigation prior to planting (with fertilizer)	1	57.0	15.0	50.0	63.9
Nutrient source: Retention pond (lagoon)		60%	50%	80%	
Application method: Pipeline					
In season irrigation (no fertilizer)	3	0.0	0.0	0.0	18.4
Nutrient source: Water only		0%	0%	0%	
Application method: Surface					
In season irrigation (with fertilizer)	4	57.0	12.0	70.0	247.2
Nutrient source: Retention pond (lagoon)		75%	50%	80%	
Application method: Pipeline					

Pre-irrigation prior to planting (with fertilizer)

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Canal	6.9	0.0	0.0	13.0
	6.9	0.0	0.0	

In season irrigation (no fertilizer)

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Canal	6.1	0.0	0.0	11.5
	6.1	0.0	0.0	

In season irrigation (with fertilizer)

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Canal	4.8	0.0	0.0	9.0
	4.8	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	44.4	0.0	0.0
Existing soil nutrient content	0.0	0.0	0.0
Plowdown credit	0.0	0.0	0.0
Commercial fertilizer	0.0	0.0	0.0
Dry manure	0.0	0.0	0.0
Liquid manure	285.0	63.0	330.0
Other	0.0	0.0	0.0
Atmospheric deposition	7.0		
Nutrients applied	336.4	63.0	330.0
Potential crop nutrient removal	240.0	45.0	198.0
Nutrient balance	96.4	18.0	132.0
Applied to removal ratio	1.40	1.40	1.67

Fresh water applied: 2.72 *feet* Total harvests: 1

NUTRIENT BUDGET FOR CROP: Field 2 / Oats, silage-soft dough

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)

NUTRIENT BUDGET FOR CROP (CONTINUED): Field 2 / Oats, silage-soft dough

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
Pre-irrigation prior to planting (with fertilizer) *Nutrient source:* Retention pond (lagoon) *Application method:* Pipeline	1	89.0 75%	15.0 50%	65.0 80%	94.9
In season irrigation (with fertilizer) *Nutrient source:* Retention pond (lagoon) *Application method:* Pipeline	2	56.0 75%	15.0 50%	70.0 80%	121.6

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Canal	5.9	0.0	0.0	11.0
	5.9	0.0	0.0	

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Canal	4.8	0.0	0.0	9.0
	4.8	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	15.4	0.0	0.0
Existing soil nutrient content	0.0	0.0	0.0
Plowdown credit	0.0	0.0	0.0
Commercial fertilizer	0.0	0.0	0.0
Dry manure	0.0	0.0	0.0
Liquid manure	201.0	45.0	205.0
Other	0.0	0.0	0.0
Atmospheric deposition	7.0		
Nutrients applied	223.4	45.0	205.0
Potential crop nutrient removal	160.0	25.6	132.8
Nutrient balance	63.4	19.4	72.2
Applied to removal ratio	1.40	1.76	1.54

Fresh water applied: 0.95 *feet* Total harvests: 1

NUTRIENT BUDGET FOR CROP: Field 2 / Corn, silage

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
Pre-irrigation prior to planting (with fertilizer) *Nutrient source:* Retention pond (lagoon) *Application method:* Pipeline	1	57.0 60%	12.0 60%	55.0 80%	63.9

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Canal	6.9	0.0	0.0	13.0
	6.9	0.0	0.0	

NUTRIENT BUDGET FOR CROP (CONTINUED): Field 2 / Corn, silage

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
In season irrigation (no fertilizer)	3	0.0	0.0	0.0	18.4
Nutrient source: Water only		0%	0%	0%	
Application method: Surface					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Canal	6.1	0.0	0.0	11.5
	6.1	0.0	0.0	

In season irrigation (with fertilizer)	4	57.0	12.0	55.0	247.2
Nutrient source: Retention pond (lagoon)		75%	50%	80%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Canal	4.8	0.0	0.0	9.0
	4.8	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	44.4	0.0	0.0
Existing soil nutrient content	0.0	0.0	0.0
Plowdown credit	0.0	0.0	0.0
Commercial fertilizer	0.0	0.0	0.0
Dry manure	0.0	0.0	0.0
Liquid manure	285.0	60.0	275.0
Other	0.0	0.0	0.0
Atmospheric deposition	7.0		
Nutrients applied	336.4	60.0	275.0
Potential crop nutrient removal	240.0	45.0	198.0
Nutrient balance	96.4	15.0	77.0
Applied to removal ratio	1.40	1.33	1.39

Fresh water applied: 2.72 *feet* Total harvests: 1

NUTRIENT BUDGET FOR CROP: Field 3 / Oats, silage-soft dough

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
Pre-irrigation prior to planting (with fertilizer)	1	89.0	15.0	65.0	94.9
Nutrient source: Retention pond (lagoon)		75%	50%	80%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Canal	5.9	0.0	0.0	11.0
	5.9	0.0	0.0	

NUTRIENT BUDGET FOR CROP (CONTINUED): Field 3 / Oats, silage-soft dough

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
In season irrigation (with fertilizer)	2	56.0	15.0	70.0	121.6
Nutrient source: Retention pond (lagoon)		75%	50%	80%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Canal	4.8	0.0	0.0	9.0
	4.8	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	15.4	0.0	0.0
Existing soil nutrient content	0.0	0.0	0.0
Plowdown credit	0.0	0.0	0.0
Commercial fertilizer	0.0	0.0	0.0
Dry manure	0.0	0.0	0.0
Liquid manure	201.0	45.0	205.0
Other	0.0	0.0	0.0
Atmospheric deposition	7.0		
Nutrients applied	223.4	45.0	205.0
Potential crop nutrient removal	160.0	25.6	132.8
Nutrient balance	63.4	19.4	72.2
Applied to removal ratio	1.40	1.76	1.54

Fresh water applied: 0.95 *feet* Total harvests: 1

NUTRIENT BUDGET FOR CROP: Field 3 / Corn, silage

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
Pre-irrigation prior to planting (with fertilizer)	1	56.0	12.0	57.0	62.9
Nutrient source: Retention pond (lagoon)		60%	60%	80%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Canal	6.9	0.0	0.0	13.0
	6.9	0.0	0.0	

In season irrigation (no fertilizer)	3	0.0	0.0	0.0	14.4
Nutrient source: Water only		0%	0%	0%	
Application method: Surface					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Canal	4.8	0.0	0.0	9.0
	4.8	0.0	0.0	

NUTRIENT BUDGET FOR CROP (CONTINUED): Field 3 / Corn, silage

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
In season irrigation (with fertilizer)	4	58.0	12.0	57.0	251.2
Nutrient source: Retention pond (lagoon)		75%	50%	80%	
Application method: Pipeline					

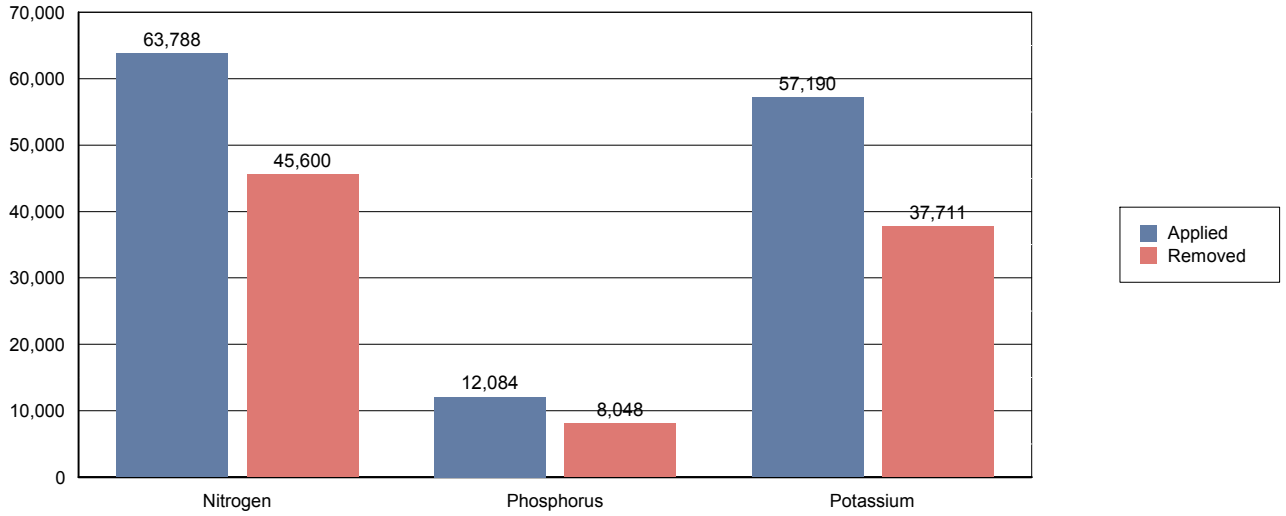
Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Canal	4.8	0.0	0.0	9.0
	4.8	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	40.5	0.0	0.0
Existing soil nutrient content	0.0	0.0	0.0
Plowdown credit	0.0	0.0	0.0
Commercial fertilizer	0.0	0.0	0.0
Dry manure	0.0	0.0	0.0
Liquid manure	288.0	60.0	285.0
Other	0.0	0.0	0.0
Atmospheric deposition	7.0		
Nutrients applied	335.5	60.0	285.0
Potential crop nutrient removal	240.0	45.0	198.0
Nutrient balance	95.5	15.0	87.0
Applied to removal ratio	1.40	1.33	1.44

Fresh water applied: 2.48 *feet* Total harvests: 1

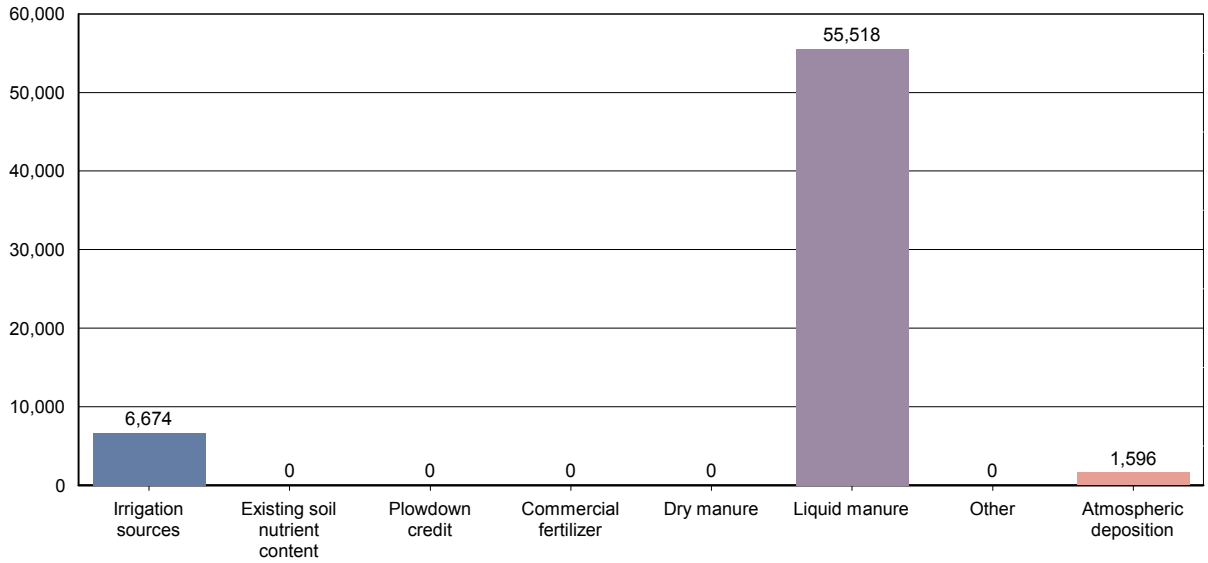
NUTRIENT APPLICATIONS, POTENTIAL REMOVAL, AND BALANCE

A. POUNDS OF NUTRIENT APPLIED VS. CROP REMOVAL POTENTIAL



	Total N (lbs)	Total P (lbs)	Total K (lbs)
Irrigation sources	6,674.5	0.0	0.0
Existing soil nutrient content	0.0	0.0	0.0
Plowdown credit	0.0	0.0	0.0
Commercial fertilizer	0.0	0.0	0.0
Dry manure	0.0	0.0	0.0
Liquid manure	55,518.0	12,084.0	57,190.0
Other	0.0	0.0	0.0
Atmospheric deposition	1,596.0		
Nutrients applied to all crops	63,788.5	12,084.0	57,190.0
Potential crop nutrient removal	45,600.0	8,048.4	37,711.2
Nutrient balance	18,188.5	4,035.6	19,478.8
Applied to removal ratio	1.40	1.50	1.52

B. POUNDS OF NITROGEN APPLIED BY NUTRIENT SOURCE



	Total N (lbs)	Total P (lbs)	Total K (lbs)
Irrigation sources	6,674.5	0.0	0.0
Existing soil nutrient content	0.0	0.0	0.0
Plowdown credit	0.0	0.0	0.0
Commercial fertilizer	0.0	0.0	0.0
Dry manure	0.0	0.0	0.0
Liquid manure	55,518.0	12,084.0	57,190.0
Other	0.0	0.0	0.0
Atmospheric deposition	1,596.0		
Nutrients applied to all crops	63,788.5	12,084.0	57,190.0
Potential crop nutrient removal	45,600.0	8,048.4	37,711.2
Nutrient balance	18,188.5	4,035.6	19,478.8
Applied to removal ratio	1.40	1.50	1.52

NUTRIENT BALANCE

A. WHOLE FARM BALANCE

	Total N (lbs)	Total P (lbs)	Total K (lbs)
Nutrients in storage from herd*			
Daily gross	1,281.6	212.0	678.3
Annual gross	467,783.5	77,385.3	247,585.0
Net to pond storage after ammonia losses (30% loss applied)	231,501.9	55,852.8	185,688.8
Net to drylot storage after ammonia losses (30% loss applied)	95,946.6	21,532.5	145,669.2
Net in storage (30% loss applied)	327,448.5	77,385.3	331,358.0
Irrigation sources	6,674.5	0.0	0.0
Atmospheric deposition	1,596.0		
Imports	0.0	0.0	0.0
Exports	271,912.0	62,127.0	275,473.7
Potential crop nutrient removal	45,600.0	8,048.4	37,711.2
Nutrient balance	18,207.0	7,209.9	18,173.1
Nutrient balance ratio	1.40	1.90	1.48

* Potassium excretion from milk cows and dry cows only.

SAMPLING AND ANALYSIS PLAN

A. SAMPLING AND ANALYSIS PLAN

No sampling and analysis plan entered. An alternative sampling and analysis plan must be attached to the Nutrient Management Plan.

NUTRIENT MANAGEMENT PLAN REVIEW

A. NUTRIENT MANAGEMENT PLAN REVIEW

Person who created the NMP:	Sousa, Paul	*See above for contact information.*
Date the NMP was drafted:	10/20/2014	
Person who approved the final NMP:	Sousa, Paul	*See above for contact information.*
Date of NMP implementation:	11/01/2014	

ATTACHED MAP AND DOCUMENTATION REFERENCES

The following list, based upon user selections and data entries, describes the minimum required attachments that must be submitted with the Nutrient Management Plan for the reporting schedule of 'July 1, 2009'.

A. PRELIMINARY DAIRY FACILITY ASSESSMENT

The NMP will include the initial Preliminary Dairy Facility Assessment (Attachment A) and the annual updates as required by Monitoring and Reporting Program No. R5-2007-0035. Copies of these assessments shall be maintained for 10 years.

B. LAND AREA MAP(S)

Identify each land application area (under the Discharger's control, whether it is owned, rented, or leased, to which manure or process wastewater from the production area is or may be applied for nutrient recycling) on a single published base map

1. A field identification system (Assessor's Parcel Number; land application area; crops grown); indication if each land application is owned, rented, or leased by the Discharger; indication of what type of waste is applied (solid manure only, wastewater only, or both solid manure and wastewater); drainage flow direction in each field, nearby surface waters, and storm water discharge points; tailwater and storm water drainage controls; subsurface (tile) drainage systems (including discharge points and lateral extent); irrigation supply wells and groundwater monitoring wells; sampling locations for discharges of storm water and tailwater to surface water from the field.

2. Process wastewater conveyance structures, discharge points and discharge mixing points with irrigation water supplies; pumping facilities; flow meter locations; drainage ditches and canals, culverts, draining controls (berms, levees, etc.), and drainage easements.

Application area map reference number: 1

Identify each field under control of the Discharger and within five miles of the dairy where neither process wastewater nor manure is applied. Each field shall be identified on a single published base map at an appropriate scale by the following:

1. Assessor's Parcel Number.
2. Total acreage.
3. Information on who owns or leases the field

Non-application area map reference number: 2

Setbacks, Buffers, and Other Alternatives to Protect Surface Water (see Technical Standard VII):

1. Identify all potential surface waters or conduits to surface water that are within 100 feet of any land application area.
2. For each land application area that is within 100 feet of a surface water or a conduit to surface water, identify the setback, vegetated buffer, or other alternative practice that will be implemented to protect surface water (Technical Standard VII).

Setbacks and buffers map reference number: 3

C. PROCESS WASTEWATER WRITTEN AGREEMENTS

Provide copies of written agreements with third parties that receive process wastewater for their own use from the Discharger's dairy (Technical Standards V.A.1 and V.A.3).

SAMPLING AND ANALYSIS PLAN CERTIFICATION

A. DAIRY FACILITY INFORMATION

Name of dairy or business operating the dairy: Machado Dairy

Physical address of dairy:

7413 S Mitchell RD	Turlock	Stanislaus	95380
Physical Address Number and Street	City	County	Zip Code

Street and nearest cross street (if no address): _____

B. DOCUMENTATION OF QUALIFICATIONS AND PLAN DEVELOPMENT

I certify that I meet the requirements as a certified specialist in developing nutrient management plans as described in Attachment C of Waste Discharge Requirements General Order No. R5-2007-0035 and that I prepared the Sampling and Analysis plan.

Agronomist -CCA 34418
TITLE/QUALIFICATIONS OF CERTIFIED NUTRIENT MANAGEMENT SPECIALIST

SIGNATURE OF TRAINED PROFESSIONAL DATE

Paul Sousa
PRINT OR TYPE NAME

1315 K ST; Modesto, CA 95354
MAILING ADDRESS

(209) 527-6453
PHONE NUMBER

C. OWNER AND/OR OPERATOR CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments 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 fine and imprisonment.

SIGNATURE OF OWNER OF FACILITY	SIGNATURE OF OPERATOR OF FACILITY
Isabel Machado	
PRINT OR TYPE NAME	PRINT OR TYPE NAME
DATE	DATE

Nutrient Management Plan Report
General Order No. R5-2007-0035, Attachment C
July 1, 2009 deadline

NUTRIENT BUDGET CERTIFICATION

A. DAIRY FACILITY INFORMATION

Name of dairy or business operating the dairy: Machado Dairy

Physical address of dairy:

7413 S Mitchell RD	Turlock	Stanislaus	95380
Number and Street	City	County	Zip Code

Street and nearest cross street (if no address): _____

B. DOCUMENTATION OF QUALIFICATIONS AND PLAN DEVELOPMENT

I certify that I meet the requirements as a certified specialist in developing nutrient management plans as described in Attachment C of Waste Discharge Requirements General Order No. R5-2007-0035 and that I prepared the Nutrient Budget plan.

Agronomist -CCA 34418
TITLE/QUALIFICATIONS OF CERTIFIED NUTRIENT MANAGEMENT SPECIALIST

Paul Sousa — 10/20/14
SIGNATURE OF TRAINED PROFESSIONAL — DATE

Paul Sousa
PRINT OR TYPE NAME

1315 K ST; Modesto, CA 95354
MAILING ADDRESS

(209) 527-6453
PHONE NUMBER

C. OWNER AND/OR OPERATOR CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments 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 fine and imprisonment.

Isabel Machado — Johnny Machado
SIGNATURE OF OWNER OF FACILITY — SIGNATURE OF OPERATOR OF FACILITY

Isabel Machado — JOHNNY MACHADO
PRINT OR TYPE NAME — PRINT OR TYPE NAME

10/28/14 — 10/28/14
DATE — DATE

STATEMENTS OF COMPLETION

Waste Discharge Requirements General Order No. R5-2007-0035 for Existing Milk Cow Dairies (General Order) requires owners and operators of existing milk cow dairies (Dischargers) to develop and implement a Nutrient Management Plan for their land application areas (land under control of the Discharger, whether it is owned, rented, or leased, to which manure or process wastewater from the production area is or may be applied for nutrient cycling). The Discharger is required to maintain the NMP at the dairy, make the NMP available to Central Valley Water Board staff during their inspections, and submit the NMP to the Executive Officer upon request.

The General Order requires the Discharger to submit two Statements of Completion during development of the NMP. The Discharger may use this form to comply with the General Order requirement to submit one or both of these Statements of Completion. Parts A and E must be completed for each Statement of Completion. Parts B, C and D are to be completed for the Statements of Completion due by 1 July 2008, 31 December 2008 and 1 July 2009, respectively. Both the owner and the operator of the dairy must sign this form in Part E below.

A. DAIRY FACILITY INFORMATION

Name of dairy or business operating the dairy: Machado Dairy

7413 S Mitchell RD	Turlock	Stanislaus	95380
Number and Street	City	County	Zip Code

Street and nearest cross street (if no address): _____

Operator name: _____ Telephone no.: _____
Landline Cellular

_____
Mailing Address Number and Street City State Zip Code

Legal owner name: Machado, Isabel Telephone no.: (209) 634-5026
Landline Cellular

7413 S Mitchell RD	Turlock	CA	95380
Mailing Address Number and Street	City	State	Zip Code

B. STATEMENT OF COMPLETION DUE 1 JULY 2008

I have completed the following items of the Nutrient Management Plan (check the boxes of completed sections), which are due 1 July 2008:

☐ **Item I.A.1 Land Application Information**
Identification of land used for manure application and needed information on a facility map.

☐ **Item I.B Land Application Information**
Information list for information provided on map above.

☐ **Item I.C Land Application Information**
Copies of written third-party process wastewater agreements.

☐ **Item I.D Land Application Information**
Identification of fields under control of the discharger within five miles of the dairy where neither process wastewater nor manure is applied.

☐ **Item II Sampling and Analysis Plan**

☐ **Item IV Setbacks, Buffers, and Other Alternatives to Protect Surface Water**
Identification of all potential surface waters or conduits to surface waters within 100 feet of land application areas and appropriate protection.

☐ **Item VI Record-Keeping Requirements**
Identification of monitoring records that will be maintained as required in the production and land application areas.

Has Item II (Sampling and Analysis Plan) of the Nutrient Management Plan been certified by a Certified Nutrient Management Specialist as required in the General Order?

☐ Yes ☐ No

C. STATEMENT OF COMPLETION DUE 31 DECEMBER 2008

I have completed the following items of the Nutrient Management Plan (check the boxes of completed sections), which are due 31 December 2008:

☐ **Item V Field Risk Assessment**
Evaluation of the effectiveness of management practices used to control the discharge of waste constituents from land application areas by assessing the water quality monitoring results of discharges of manure, process wastewater, tailwater, subsurface (tile) drainage, or storm water from the land application areas.

D. STATEMENT OF COMPLETION DUE 1 JULY 2009

I have completed the following items of the Nutrient Management Plan (check the boxes of completed sections), which are due 1 July 2009:

☐ **Item I.A.2 Land Application Area Information**
Identification of process wastewater conveyance, mixing and drainage information for each land application area on a facility map.

☐ **Item III Nutrient Budget**
Established planned rates of nutrient applications by crop based on nutrient monitoring results for each land application area.

Has Item III (Nutrient Budget) of the Nutrient Management Plan been certified by a Certified Nutrient Management Specialist as required in the General Order?

☐ Yes ☐ No

E. CERTIFICATION STATEMENT

I certify under penalty of law that I have completed the items of the Nutrient Management Plan that are checked in Parts B, C and/or D above for the dairy identified in Part A above and that the appropriate certified nutrient management specialist has certified the items requiring such certification as noted in part B and/or D above and that I have personally examined and am familiar with the information submitted in Parts A, B, C and D of this document and all attachments 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 fine and imprisonment.

Isabel Machado	
SIGNATURE OF OWNER OF FACILITY	SIGNATURE OF OPERATOR OF FACILITY
Isabel Machado	JOHNNY MACHADO
PRINT OR TYPE NAME	PRINT OR TYPE NAME
10/25/14	10/28/14
DATE	DATE