DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT
1010 10TH Street, Suite 3400, Modesto, CA 95354
Planning Phone: (209) 525-6330 Fax: (209) 525-5911
Building Phone: (209) 525-6557 Fax: (209) 525-7759

Referral
Early Consultation

Date: **October 23, 2020**

To: **Distribution List (See Attachment A)**

From: **Kristen Anaya, Assistant Planner, Planning and Community Development**

Subject: **USE PERMIT APPLICATION NO. PLN2014-0108 – ISABEL MACHADO DAIRY**

Respond By: **November 9, 2020**

****PLEASE REVIEW REFERRAL PROCESS POLICY****

The Stanislaus County Department of Planning and Community Development is soliciting comments from responsible agencies under the Early Consultation process to determine: a) whether or not the project is subject to CEQA and b) if specific conditions should be placed upon project approval.

Therefore, please contact this office by the response date if you have any comments pertaining to the proposal. Comments made identifying potential impacts should be as specific as possible and should be based on supporting data (e.g., traffic counts, expected pollutant levels, etc.). Your comments should emphasize potential impacts in areas which your agency has expertise and/or jurisdictional responsibilities.

These comments will assist our Department in preparing a staff report to present to the Planning Commission. Those reports will contain our recommendations for approval or denial. They will also contain recommended conditions to be required should the project be approved. Therefore, please list any conditions that you wish to have included for presentation to the Commission as well as any other comments you may have. Please return all comments and/or conditions as soon as possible or no later than the response date referenced above.

Thank you for your cooperation. Please call (209) 525-6330 if you have any questions.

Applicant: **John Machado, Owner**

Project Location: **7413 S. Mitchell Road, between Hilmar and August Roads, north of the Stanislaus County line, in the Turlock area**

APN: **057-007-005, -006, & 057-023-004**

Williamson Act Contract: **77-2809**

General Plan: **Agriculture**

Current Zoning: **A-2-40 (General Agriculture)**

Project Description: **Request to expand the herd of an existing dairy operation, currently operating on three parcels totaling 137.2± acres, in the A-2-40 (General Agriculture) zoning district. This project requests to expand the number of combined milk and dry cows from 1,180 mature cows (1,100 milk cows and 80 dry) to 1,700 mature cows (1,500 milk and 200 dry); and to increase support stock numbers from 80 to 1,160. The total number of animals is to increase by 1,600. Consequently, additional waste will be generated. The dairy's existing Waste Management Plan (WMP) and Nutrient Management Plan (NMP) were revised to account for the increase in waste and resulting storage and disposal needs associated with the increase in herd size. The updated WMP estimates that the daily manure production will increase by 1,900 cubic feet to 4,586±, which equates to approximately 4,117,194 gallons and 550,389 cubic feet of manure per year (pre-separation). The estimated wastewater storage needs will be accommodated by the existing capacity of the on-site lagoons.**

The existing dairy operation has been previously developed with areas for feed storage, waste containment, milking facility infrastructure, and utilities. Due to the proposed increases in animal units, this applicant is also requesting construction of a 36,000± square-foot addition to an existing freestall barn, and a new 94,500± square-foot freestall barn, located immediately west of the existing dairy facility footprint.

Although three Assessor's parcels are included in this request, only one Assessor parcel (APN 057-007-005) houses the dairy facility. The remaining two parcels associated with the project consist of cropland and ponds for waste containment and nutrient application. Nutrients produced from the herd will be utilized to fertilize approximately 100± acres of irrigated cropland on-site and on applicant-owned parcels to the south of the project site. Hours of operation will remain the same at 24-hours a day, seven days a week. The applicant anticipates increasing employees from 11 to 14 employees on a minimum shift and from 12 to 15 employees on a maximum shift; and one customer/visitor on-site per day. The anticipated number of truck trips per day will increase from one to three. The parcel has also been improved with one single-family dwelling. The site is served by private well and septic system and has access to County-maintained South Mitchell and Hilmar Roads.

Full document with attachments available for viewing at:
http://www.stancounty.com/planning/pl/act-projects.shtm

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Building Phone: (209) 525-6557 Fax: (209) 525-7759

USE PERMIT APPLICATION NO. PLN2014-0108 – ISABEL MACHADO DAIRY

Attachment A
Distribution List

X	CA DEPT OF CONSERVATION Land Resources		STAN CO ALUC
X	CA DEPT OF FISH & WILDLIFE		STAN CO ANIMAL SERVICES
	CA DEPT OF FORESTRY (CAL FIRE)	X	STAN CO BUILDING PERMITS DIVISION
	CA DEPT OF TRANSPORTATION DIST 10	X	STAN CO CEO
X	CA OPR STATE CLEARINGHOUSE		STAN CO CSA
X	CA RWQCB CENTRAL VALLEY REGION	X	STAN CO DER
	CA STATE LANDS COMMISSION	X	STAN CO ERC
	CEMETERY DISTRICT	X	STAN CO FARM BUREAU
	CENTRAL VALLEY FLOOD PROTECTION	X	STAN CO HAZARDOUS MATERIALS
	CITY OF:		STAN CO PARKS & RECREATION
	COMMUNITY SERVICES DIST:	X	STAN CO PUBLIC WORKS
X	COOPERATIVE EXTENSION		STAN CO RISK MANAGEMENT
X	COUNTY OF: MERCED	X	STAN CO SHERIFF
X	DER GROUNDWATER RESOURCES DIVISION	X	STAN CO SUPERVISOR DIST 2: CHIESA
X	FIRE PROTECTION DIST: MOUNTAIN VIEW	X	STAN COUNTY COUNSEL
X	GSA: WEST TURLOCK SUBBASIN		StanCOG
	HOSPITAL DIST:	X	STANISLAUS FIRE PREVENTION BUREAU
X	IRRIGATION DIST: TURLOCK	X	STANISLAUS LAFCO
X	MOSQUITO DIST: TURLOCK	X	STATE OF CA SWRCB DIVISION OF DRINKING WATER DIST. 10
X	MOUNTAIN VALLEY EMERGENCY MEDICAL SERVICES		SURROUNDING LAND OWNERS
	MUNICIPAL ADVISORY COUNCIL:	X	TELEPHONE COMPANY: AT&T
X	PACIFIC GAS & ELECTRIC		TRIBAL CONTACTS (CA Government Code §65352.3)
	POSTMASTER:		US ARMY CORPS OF ENGINEERS
	RAILROAD:		US FISH & WILDLIFE
X	SAN JOAQUIN VALLEY APCD		US MILITARY (SB 1462) (7 agencies)
X	SCHOOL DIST 1: CHATOM UNION	X	USDA NRCS
X	SCHOOL DIST 2: TURLOCK UNIFIED		WATER DIST:
	WORKFORCE DEVELOPMENT		
X	STAN CO AG COMMISSIONER		
	TUOLUMNE RIVER TRUST		

STANISLAUS COUNTY
CEQA REFERRAL RESPONSE FORM

TO: **Stanislaus County Planning & Community Development**
1010 10th Street, Suite 3400
Modesto, CA 95354

FROM: _____

SUBJECT: **USE PERMIT APPLICATION NO. PLN2014-0108 – ISABEL MACHADO DAIRY**

Based on this agency's particular field(s) of expertise, it is our position the above described project:

_____ Will not have a significant effect on the environment.
_____ May have a significant effect on the environment.
_____ No Comments.

Listed below are specific impacts which support our determination (e.g., traffic general, carrying capacity, soil types, air quality, etc.) – (attach additional sheet if necessary)

1.
2.
3.
4.

Listed below are possible mitigation measures for the above-listed impacts: *PLEASE BE SURE TO INCLUDE WHEN THE MITIGATION OR CONDITION NEEDS TO BE IMPLEMENTED (PRIOR TO RECORDING A MAP, PRIOR TO ISSUANCE OF A BUILDING PERMIT, ETC.):*

1.
2.
3.
4.

In addition, our agency has the following comments (attach additional sheets if necessary).

_____

_____

Response prepared by:

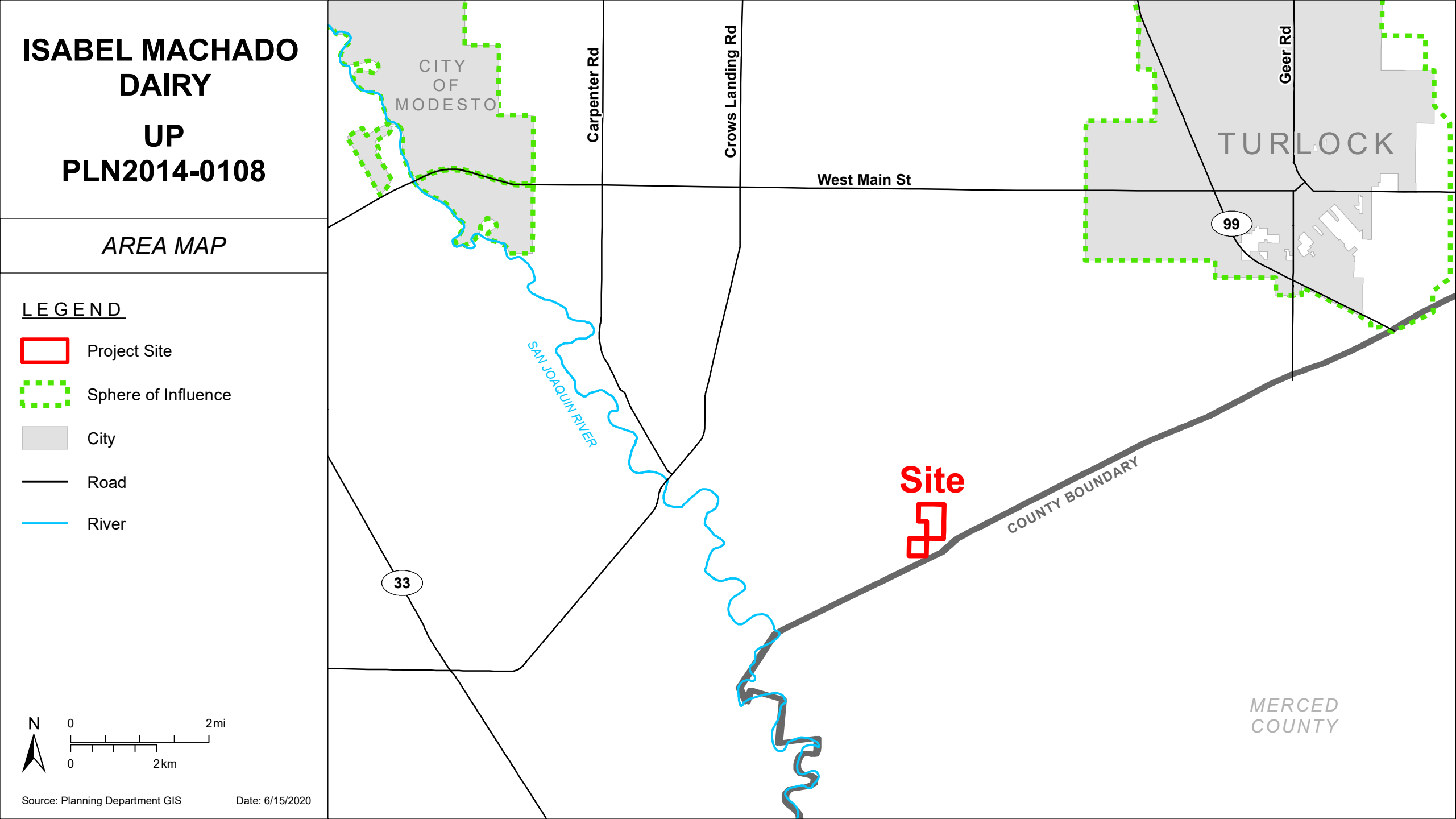
_____

Name Title Date

ISABEL MACHADO DAIRY

UP PLN2014-0108

AREA MAP



Source: Planning Department GIS

Date: 6/15/2020

ISABEL MACHADO DAIRY

UP PLN2014-0108

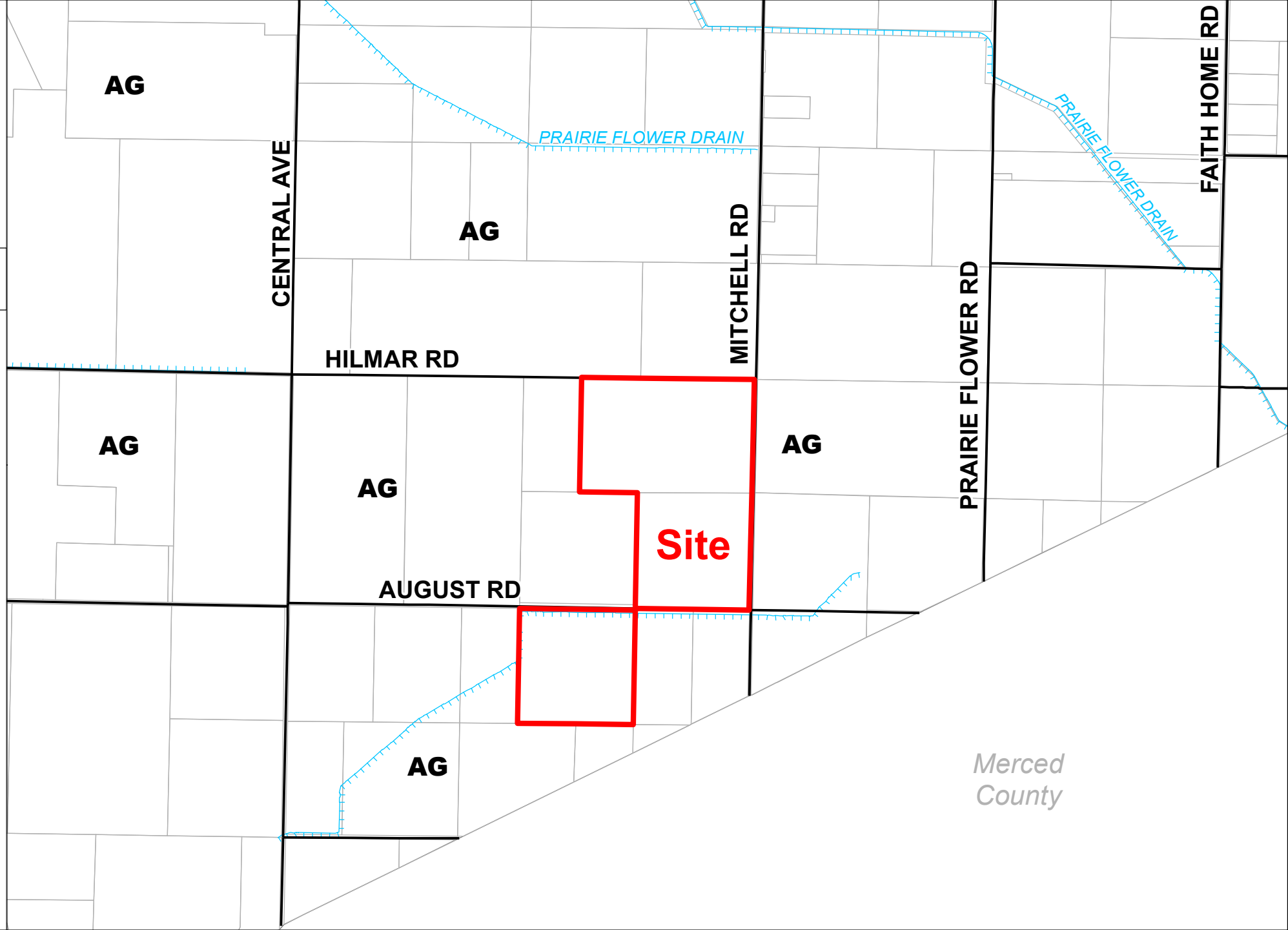
GENERAL PLAN MAP

LEGEND

- Project Site
- Parcel
- Canal
- Road

General Plan

- Agriculture



N

0 1,500 ft

0 300 m

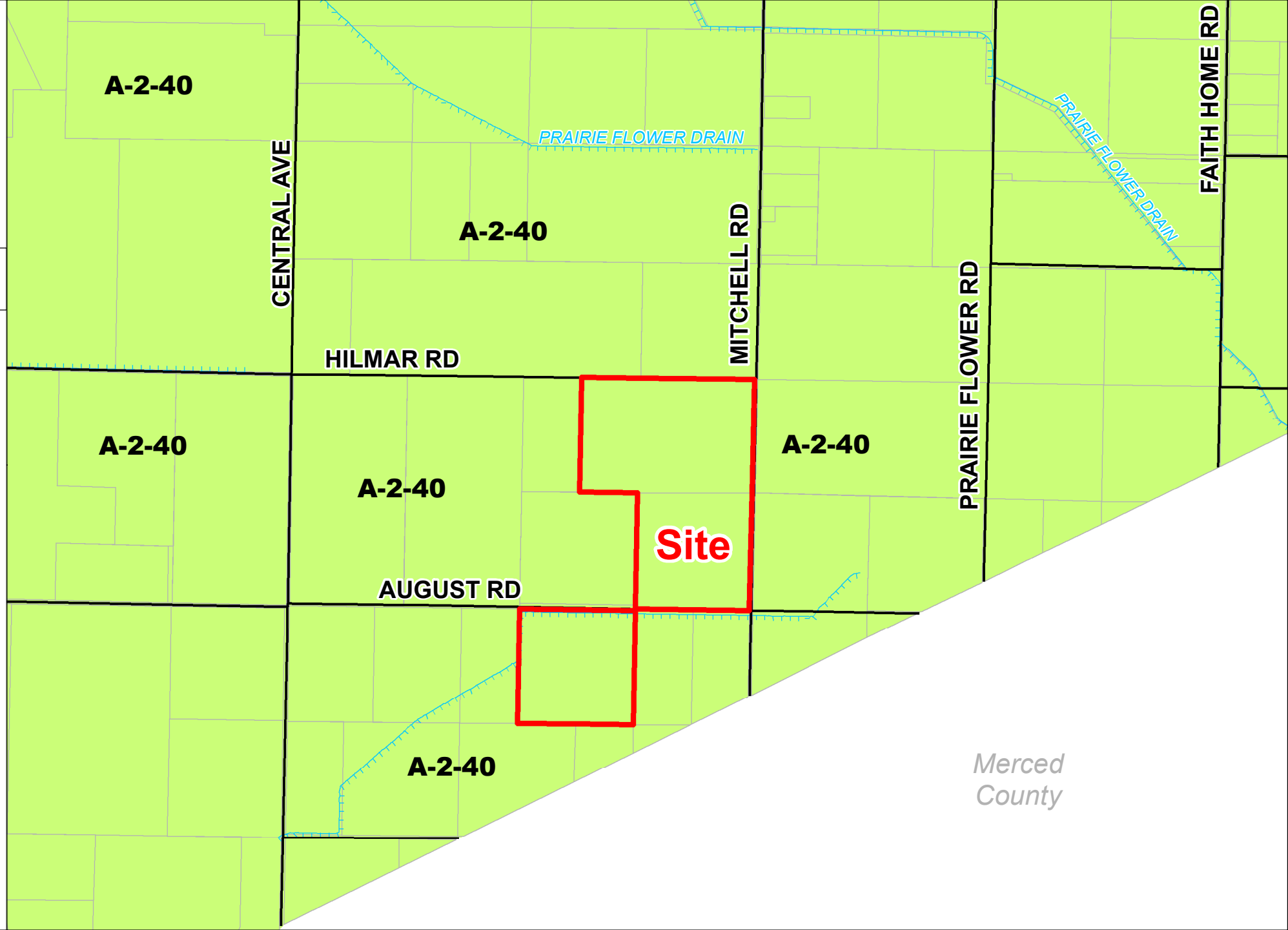
Source: Planning Department GIS

Date: 6/15/2020

ISABEL MACHADO DAIRY

UP PLN2014-0108

ZONING MAP



LEGEND

- Project Site
- Parcel
- Road
- Canal

Zoning Designation

- General Agriculture 40 Acre

N

0 1,500 ft

0 300 m

Source: Planning Department GIS

Date: 6/15/2020

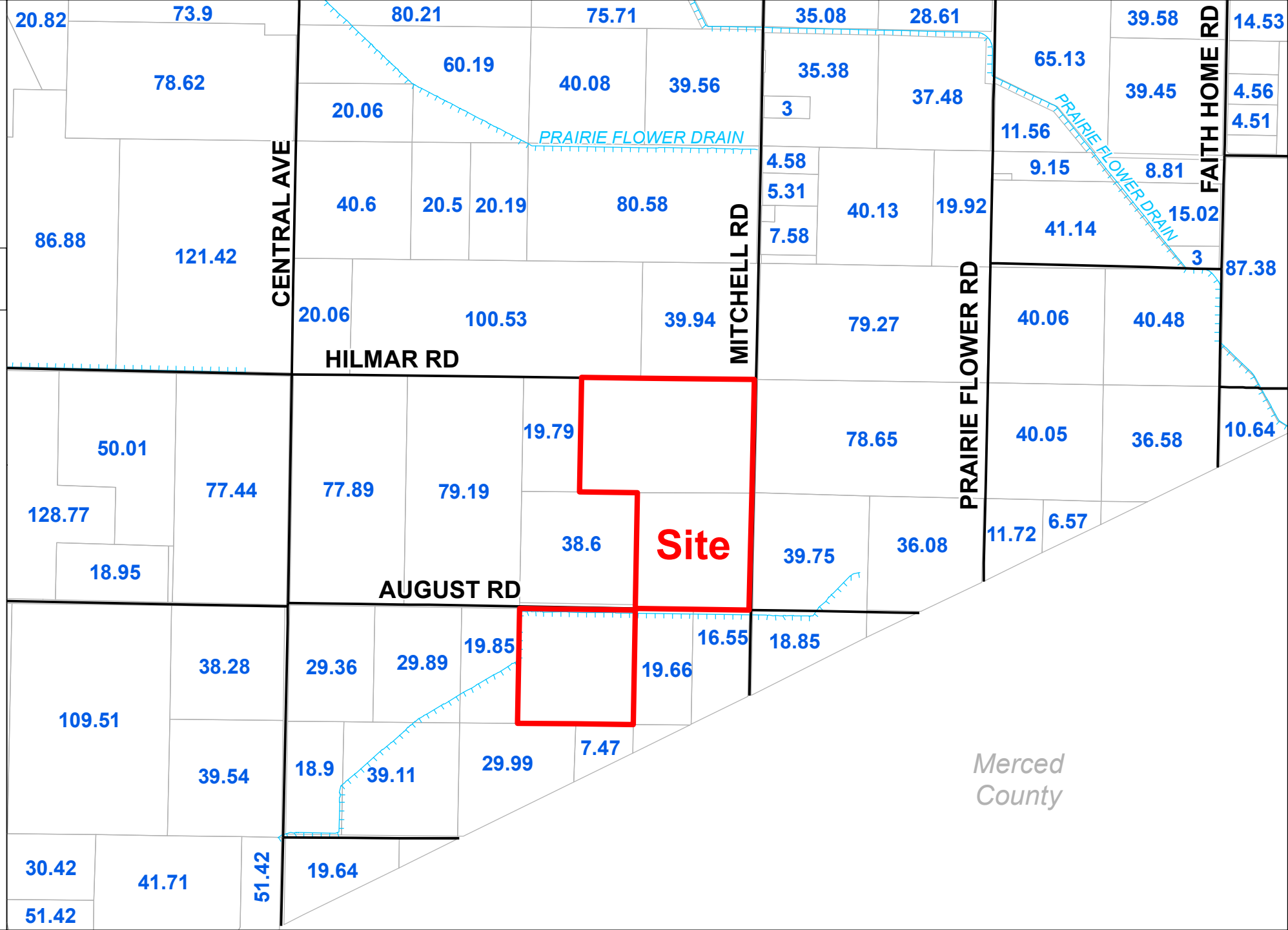
ISABEL MACHADO DAIRY

UP PLN2014-0108

ACREAGE MAP

LEGEND

- Project Site
- # Parcel/Acres
- Road
- Canal



N

0 1,500 ft

0 300 m

Source: Planning Department GIS

Date: 6/15/2020

ISABEL MACHADO DAIRY

UP PLN2014-0108

2017 AERIAL AREA MAP

LEGEND

- Project Site
- Sphere of Influence
- Road
- River
- Canal

N

0 1,500 ft

0 300 m

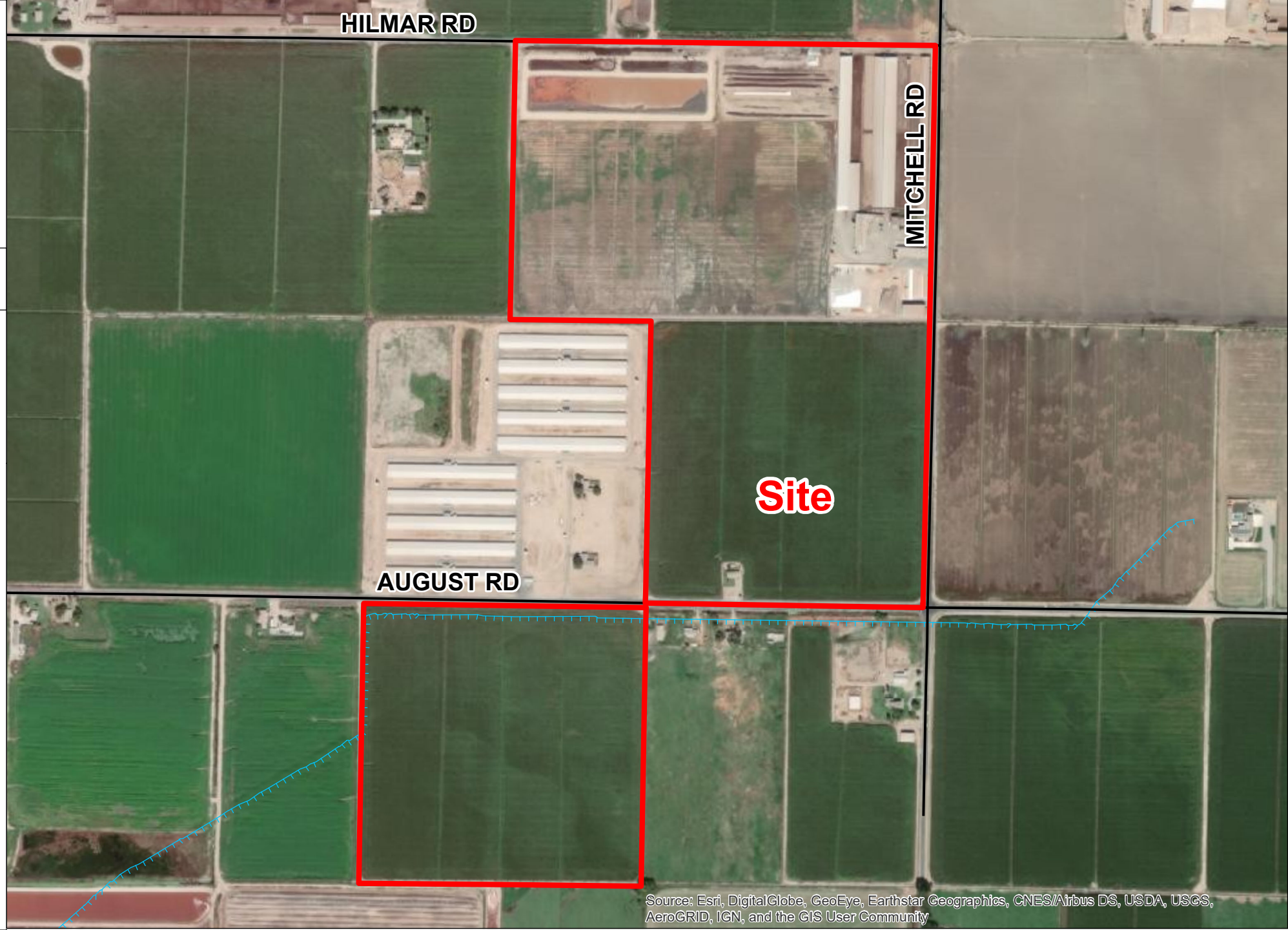
Source: Planning Department GIS

Date: 6/15/2020

ISABEL MACHADO DAIRY

UP PLN2014-0108

2017 AERIAL SITE MAP



LEGEND

- Project Site
- Road
- Canal

N

0 400 ft

0 100 m

Source: Planning Department GIS

Date: 6/15/2020

Stanislaus County
Striving to be the Best

APPLICATION QUESTIONNAIRE

Please Check all applicable boxes
APPLICATION FOR:

Staff is available to assist you with determining which applications are necessary

- ☐ General Plan Amendment
- ☐ Rezone
- ☒ Use Permit
- ☐ Variance
- ☐ Historic Site Permit
- ☐ Subdivision Map
- ☐ Parcel Map
- ☐ Exception
- ☐ Williamson Act Cancellation
- ☐ Other _____

PLANNING STAFF USE ONLY:

Application No(s): UP PLN2020-0108
Date: 8/27/2020
S 11 & 14 T 6 R 9
GP Designation: Agriculture
Zoning: A-2-40
Fee: _____
Receipt No. _____
Received By: KA
Notes: resubmittal

In order for your application to be considered COMPLETE, please answer all applicable questions on the following pages, and provide all applicable information listed on the checklist on pages i – v. Under State law, upon receipt of this application, staff has 30 days to determine if the application is complete. We typically do not take the full 30 days. It may be necessary for you to provide additional information and/or meet with staff to discuss the application. Pre-application meetings are not required, but are highly recommended. An incomplete application will be placed on hold until all the necessary information is provided to the satisfaction of the requesting agency. An application will not be accepted without all the information identified on the checklist.

Please contact staff at (209) 525-6330 to discuss any questions you may have. Staff will attempt to help you in any way we can.

PROJECT INFORMATION

PROJECT DESCRIPTION: (Describe the project in detail, including physical features of the site, proposed improvements, proposed uses or business, operating hours, number of employees, anticipated customers, etc. – Attach additional sheets as necessary)

Please note: A detailed project description is essential to the reviewing process of this request. In order to approve a project, the Planning Commission or the Board of Supervisors must decide whether there is enough information available to be able to make very specific statements about the project. These statements are called "Findings". It is your responsibility as an applicant to provide enough information about the proposed project, so that staff can recommend that the Commission or the Board make the required Findings. Specific project Findings are shown on pages 17 – 19 and can be used as a guide for preparing your project description. (If you are applying for a Variance or Exception, please contact staff to discuss special requirements).

The facility is an existing and operating dairy facility with corrals, milking facilities, waste storage structures, and utilities in place. The operation currently houses approximately 1200 mature cows and 80 support stock. Application is to increase the milk/dry cows by 500 head for a total of 1500 milk cows, and 200 dry cows .and increase support stock to 1160 head. There will be an estimated increase of 1 milk truck trip and 1 commodity truck trip and 2 employee trips. Project requires the construction of a 36000 sq. ft. addition to the West Freestall Barn and the construction of a new 94500 sq. ft. freestall barn for dry cows and support stock directly west of the current footprint. Nutrients produced by the herd are utilized to fertilize 100 +/- acres of irrigated cropland farmed by the applicants. Refer to nutrient management plan for further information.

PROJECT SITE INFORMATION

Complete and accurate information saves time and is vital to project review and assessment. Please complete each section entirely. If a question is not applicable to your project, please indicated this to show that each question has been carefully considered. Contact the Planning & Community Development Department Staff, 1010 10th Street – 3rd Floor, (209) 525-6330, if you have any questions. Pre-application meetings are highly recommended.

ASSESSOR'S PARCEL NUMBER(S): **Book** 057 **Page** 007 **Parcel** 005

Additional parcel numbers: _____

Project Site Address or Physical Location: 7413 S. Mitchell Rd. Turlock CA 95380

Property Area: Acres: 58.49 or Square feet: _____

Current and Previous Land Use: (Explain existing and previous land use(s) of site for the last ten years)

The current and previous use is a dairy operation

List any known previous projects approved for this site, such as a Use Permit, Parcel Map, etc.: (Please identify project name, type of project, and date of approval)

Existing General Plan & Zoning: A-2-40

Proposed General Plan & Zoning: Unchanged
(if applicable)

ADJACENT LAND USE: (Describe adjacent land uses within 1,320 feet (1/4 mile) and/or two parcels in each direction of the project site)

East: Cropland and rural residences.

West: Cropland.

North: Dairy Facility, cropland and Irrigated pasture.

South: Poultry facility, cropland and rural residences.

WILLIAMSON ACT CONTRACT:

Yes ☒ **No** ☐

Is the property currently under a Williamson Act Contract?
Contract Number: _____

If yes, has a Notice of Non-Renewal been filed?

Date Filed: _____

Yes ☐ No ☒ Do you propose to cancel any portion of the Contract?

Yes ☐ No ☒ Are there any agriculture, conservation, open space or similar easements affecting the use of the project site. (Such easements do not include Williamson Act Contracts)

If yes, please list and provide a recorded copy: _____

_____

SITE CHARACTERISTICS: (Check one or more) Flat ☒ Rolling ☐ Steep ☐

VEGETATION: What kind of plants are growing on your property? (Check one or more)

Field crops ☒ Orchard ☐ Pasture/Grassland ☐ Scattered trees ☐

Shrubs ☐ Woodland ☐ River/Riparian ☐ Other ☐

Explain Other: _____

Yes ☐ No ☒ Do you plan to remove any trees? (If yes, please show location of trees planned for removal on plot plan and provide information regarding transplanting or replanting.)

GRADING:

Yes ☒ No ☐ Do you plan to do any grading? (If yes, please indicate how many cubic yards and acres to be disturbed. Please show areas to be graded on plot plan.) To grade and slope approximately 3 acres of existing farmland to construct 50X720 West Freestall addition and 106X900 helfer freestall

STREAMS, LAKES, & PONDS:

Yes ☐ No ☒ Are there any streams, lakes, ponds or other watercourses on the property? (If yes, please show on plot plan)

Yes ☐ No ☒ Will the project change any drainage patterns? (If yes, please explain – provide additional sheet if needed) _____

_____

Yes ☐ No ☒ Are there any gullies or areas of soil erosion? (If yes, please show on plot plan)

Yes ☐ No ☒ Do you plan to grade, disturb, or in any way change swales, drainages, ditches, gullies, ponds, low lying areas, seeps, springs, streams, creeks, river banks, or other area on the site that carries or holds water for any amount of time during the year? (If yes, please show areas to be graded on plot plan)

Please note: If the answer above is yes, you may be required to obtain authorization from other agencies such as the Corps of Engineers or California Department of Fish and Game.

STRUCTURES:

Yes ☒ **No** ☐ Are there structures on the site? (If yes, please show on plot plan. Show a relationship to property lines and other features of the site.

Yes ☐ **No** ☒ Will structures be moved or demolished? (If yes, indicate on plot plan.)

Yes ☒ **No** ☐ Do you plan to build new structures? (If yes, show location and size on plot plan.)

Yes ☐ **No** ☒ Are there buildings of possible Historical significance? (If yes, please explain and show location and size on plot plan.) _____

_____

PROJECT SITE COVERAGE:

Existing Building Coverage: 191,900+/- Sq. Ft.

Proposed Building Coverage: 131,400+/- Sq. Ft.

Landscaped Area: 12,000+/- Sq. Ft.

Paved Surface Area: 147,160 +/- Sq. Ft.

BUILDING CHARACTERISTICS:

Size of new structure(s) or building addition(s) in gross sq. ft.: (Provide additional sheets if necessary)

Construct 50X720 West Freestall addition and 106X900 heifer freestall

Number of floors for each building: One

Building height in feet (measured from ground to highest point): (Provide additional sheets if necessary) 30+/-

Height of other appurtenances, excluding buildings, measured from ground to highest point (i.e., antennas, mechanical equipment, light poles, etc.): (Provide additional sheets if necessary)

Proposed surface material for parking area: (Provide information addressing dust control measures if non-asphalt/concrete material to be used) _____

UTILITIES AND IRRIGATION FACILITIES:

Yes ☒ **No** ☐ Are there existing public or private utilities on the site? Includes telephone, power, water, etc. (If yes, show location and size on plot plan)

Who provides, or will provide the following services to the property?

Electrical: Turlock Irrigation District

Sewer*: Septic

Telephone: Public provider

Gas/Propane: Private distributor

Water**: Private wells

Irrigation: Turlock Irrigation District

***Please Note: A "will serve" letter is required if the sewer service will be provided by City, Sanitary District, Community Services District, etc.**

****Please Note: A "will serve" letter is required if the water source is a City, Irrigation District, Water District, etc., and the water purveyor may be required to provide verification through an Urban Water Management Plan that an adequate water supply exists to service your proposed development.**

Will any special or unique sewage wastes be generated by this development other than that normally associated with resident or employee restrooms? Industrial, chemical, manufacturing, animal wastes? (Please describe:)

There will be approximately 1900 cu. ft. per day of additional manure generated on the facility from the proposed increase in the animals housed on the operation

Please Note: Should any waste be generated by the proposed project other than that normally associated with a single family residence, it is likely that Waste Discharge Requirements will be required by the Regional Water Quality Control Board. Detailed descriptions of quantities, quality, treatment, and disposal may be required.

Yes ☒ **No** ☐ Are there existing irrigation, telephone, or power company easements on the property? (If yes, show location and size on plot plan.)

Yes ☐ **No** ☒ Do the existing utilities, including irrigation facilities, need to be moved? (If yes, show location and size on plot plan.)

Yes ☐ **No** ☒ Does the project require extension of utilities? (If yes, show location and size on plot plan.)

AFFORDABLE HOUSING/SENIOR:

Yes ☐ **No** ☒ Will the project include affordable or senior housing provisions? (If yes, please explain)

RESIDENTIAL PROJECTS: (Please complete if applicable – Attach additional sheets if necessary)

Total No. Lots:_____ Total Dwelling Units:_____ Total Acreage:_____

Net Density per Acre: _____ Gross Density per Acre: _____

(complete if applicable)	Single Family	Two Family Duplex	Multi-Family Apartments	Multi-Family Condominium/ Townhouse
Number of Units:				
Acreage:				

COMMERCIAL, INDUSTRIAL, MANUFACTURING, RETAIL, USE PERMIT, OR OTHER PROJECTS: (Please complete if applicable – Attach additional sheets if necessary)

Square footage of each existing or proposed building(s): Existing buildings comprise a total area of 191,900 +/ sq. ft. The individual buildings have been shown on the site plan.

Type of use(s): All dairy related buildings are agricultural use (2010 CBC category u). The only other buildings use on the property is residential (2010 CBC category R).

Days and hours of operation: 24 hours per day/7 days per week

Seasonal operation (i.e., packing shed, huller, etc.) months and hours of operation:

Occupancy/capacity of building:

Number of employees: (Maximum Shift): 4 (Minimum Shift): 2

Estimated number of daily customers/visitors on site at peak time: 1

Other occupants:

Estimated number of truck deliveries/loadings per day: 3

Estimated hours of truck deliveries/loadings per day: 8

Estimated percentage of traffic to be generated by trucks: 10

Estimated number of railroad deliveries/loadings per day: 0

Square footage of:

Office area: Warehouse area:

Sales area: Storage area:

Loading area: Manufacturing area:

Other: (explain type of area) Non-building dairy area (corrals, ponds, feed storage, etc.) = 1,000,000+/- sq. ft.

Yes ☐ **No** ☒ Will the proposed use involve toxic or hazardous materials or waste? (Please explain)

ROAD AND ACCESS INFORMATION:

What County road(s) will provide the project's main access? (Please show all existing and proposed driveways on the plot plan)

Mitchell Rd.

Yes ☐ No ☒ Are there private or public road or access easements on the property now? (If yes, show location and size on plot plan)

Yes ☐ No ☒ Do you require a private road or easement to access the property? (If yes, show location and size on plot plan)

Yes ☐ No ☒ Do you require security gates and fencing on the access? (If yes, show location and size on plot plan)

Please Note: Parcels that do not front on a County-maintained road or require special access may require approval of an Exception to the Subdivision Ordinance. Please contact staff to determine if an exception is needed and to discuss the necessary Findings.

STORM DRAINAGE:

How will your project handle storm water runoff? (Check one) ☒ Drainage Basin ☐ Direct Discharge ☐ Overland

☒ Other: (please explain) Drainage basins (storage ponds) and land application to cropland

If direct discharge is proposed, what specific waterway are you proposing to discharge to? _____

Please Note: If direct discharge is proposed, you will be required to obtain a NPDES permit from the Regional Water Quality Control Board, and must provide evidence that you have contacted them regarding this proposal with your application.

EROSION CONTROL:

If you plan on grading any portion of the site, please provide a description of erosion control measures you propose to implement.

Please note: You may be required to obtain an NPDES Storm Water Permit from the Regional Water Quality Control Board and prepare a Storm Water Pollution Prevention Plan.

ADDITIONAL INFORMATION:

Please use this space to provide any other information you feel is appropriate for the County to consider during review of your application. (Attach extra sheets if necessary)

The facility is an existing dairy operation that has corrals, feed storage, waste containment, and utilities in place. The application is to increase the number of mature cows on the operation by 500 and support stock by approximately 1000. Proposed expansion will require the construction of a 36,000 sq. ft. addition to an to an existing freestall barn and the construction of a new 95,400 s. ft. freestall barn. Both projects are proposed to be built directly west of the existing facility footprint.. No other physical changes to the facility will be required.

WASTE MANAGEMENT PLAN

Machado Dairy
c/o: John Machado
7413 So. Mitchell Rd.
Turlock, CA 95380

Prepared By:

Ag Services, Inc.

2857 Geer Road, Suite A
Turlock, California 95382

Waste Management Plan Report
General Order No. R5-2007-0035, Attachment B
July 1, 2010 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):

TRS Data and Coordinates:

6S	9E	11	Mt. Diablo	37° 25' 27.61" N	120° 56' 30.61" W
Township (T_)	Range (R_)	Section (S_)	Baseline meridian	Latitude (N)	Longitude (W)

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

OPERATOR NAME: Machado, John Telephone no.: (209) 652-6929 (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

LEGAL OWNER NAME: Machado, John Telephone no.: (209) 652-6929 (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: Mitchell, Michael Telephone no.: (209) 664-1067 (Landline) (Cellular)

Title: Professional Engineer

18836 Clausen RD	Turlock	CA	95380
Mailing Address Number and Street	City	State	Zip Code

Waste Management Plan Report
General Order No. R5-2007-0035, Attachment B
July 1, 2010 deadline

CONTACT NAME: Ramos, Joe | Telephone no.: (209) 250-2471 Landline | (209) 226-2375 Cellular

Title: Technical Service Provider

2857 Geer RD, STE A	Turlock	CA	95382
Mailing Address Number and Street	City	State	Zip Code

Waste Management Plan Report
General Order No. R5-2007-0035, Attachment B
July 1, 2010 deadline

HERD AND MILKING EQUIPMENT

A. HERD AND MILKING

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:

1,700 milk and dry cows combined (regulatory review is required for any expansion)

Type of Animal	Present Count	Maximum Count	Daily Flush Hours	Avg Live Weight (lbs)
Milk Cows	1,100	1,500	18	1,400
Dry Cows	80	200	24	1,400
Bred Heifers (15-24 mo.)	50	450	18	900
Heifers (7-14 mo.)	0	450	24	650
Calves (4-6 mo.)	0	260	24	
Calves (0-3 mo.)	0	0	0	

Predominant milk cow breed: Holstein

Average milk production: 77 pounds per cow per day

Average number of milk cows per string sent to the milkbarn: 188 milk cows per string

Number of milkings per day: 2.0 milkings per day

Number of times milk tank is emptied/filled each day: 2.0 per day

Number of hours spent milking each day: 22.0 hours per day

B. MILKBARN EQUIPMENT AND FLOOR WASH

Bulk tank wash and sanitizing: 4.0 run cycles/wash

Bulk tank wash vat volume: 60 gallons/cycle

Bulk tank wash wastewater: 480.0 gallons/day

Pipeline wash and sanitizing: 4.0 run cycles/wash

Pipeline wash vat volume: 75 gallons/cycle

Pipeline wash wastewater: 600.0 gallons/day

Reused / recycled water is the source of parlor floor wash water: [ ] Yes [X] No

Milkbarn / parlor floor wash volume: 0 gallons/day

Plate coolers type: Mechanically/Air Cooled

Plate coolers volume: 0 gallons/day

Vacuum pumps / air compressors / chillers type: Mechanically/Air Cooled

Vacuum pumps / air compressors / chillers volume: 0 gallons/day

Milkbarn and equipment wastewater volume generated daily: 11,195 gallons/day

C. OTHER WATER USES

Reused/recycled water is the source of herd drinking water: [ ] Yes [X] No

	Milk Cows	Dry Cows	Bred Heifers (15-24 mo.)	Bred Heifers (7-14 mo.)	Calves (4-6 mo.)	Calves (0-3 mo.)
Number of cows drinking from reusable water:	0	0	0	0	0	0
	of 1,100	*of 80*	*of 50*	*of 0*	*of 0*	*of 0*
Gallons per head per day:	0	0	0	0	0	0

Total reusable water consumed by herd: 0 gallons/day

Reused/recycled water is the source of sprinkler pen water: [ ] Yes [X] No

Number of sprinklers in the holding pen: 0 sprinklers

Duration of each sprinkler cycle: 1.0 minutes

Number of sprinkler pen runs/milking: 1 cycles/milking

Flow rate for each sprinkler head: 1.0 gallons/minute

Total sprinkler pen wastewater volume: 0 gallons/day

Total fresh water used in manure flush lane system(s): 0 gallons/day

D. MISCELLANEOUS EQUIPMENT

Description	Source	Throughput (gallons per day)	Discharge Destination
Footbath	Fresh Water	50	Sent to pond
Parlor Butt Trough	Fresh Water	2,175	Sent to pond
Parlor Deck Squirt	Fresh Water	2,860	Sent to pond
Parlor Drop Hoses	Fresh Water	680	Sent to pond
Parlor Slab Wash	Fresh Water	4,350	Sent to pond

E. MILKBARN AND EQUIPMENT SUMMARY

Number of days in storage period: 120 days

Water available for reuse/recycle: 0 gallons/day

Recycled water reused: 0 gallons/day

Recycled water leaving system: 0 gallons/day

Reusable water balance: 0 gallons/day

Volume of milkbarn and equipment wastewater generated for storage period: 1,343,400 gallons/storage period

MANURE AND BEDDING SOLIDS

A. IMPORTED AND FACILITY GENERATED BEDDING

Bedding Type	Imported or Generated (tons)	Density (lbs/cu. ft.)	Applied Separation Efficiency (default)	Solids to Pond (cu. ft./period)
Facility generated bedding	400	40.0	50%	10,000
			Total:	10,000

B. SOLIDS SEPARATION PROCESS

Combined manure solids separation efficiency (weight basis): 60 %

Description of all solids separation equipment used in flushed lane manure management systems:

Proposed Mechanical Separator

C. MANURE AND BEDDING SOLIDS SUMMARY

	cubic feet		gallons	
	day	storage period	day	storage period
Manure generated by the herd (pre-separation):	4,586.57	550,389	34,309.95	4,117,194
Manure generated by the herd sent to pond(s):	2,867.72	344,127	21,452.06	2,574,247
Manure generated by the herd sent to dry lot(s):	972.00	116,640	7,271.05	872,526
Manure solids (herd) removed by separation:	361.55	43,386	2,704.57	324,548
Liquid component in separated solids not send to pond(s):	385.30	46,236	2,882.27	345,872
Imported and facility generated bedding sent to pond(s):	83.33	10,000	623.38	74,805
Total manure and bedding sent to pond(s):	2,951.06	354,127	22,075.44	2,649,053
Residual manure solids and bedding sent to pond(s) w/factor:	162.18	19,462	1,213.21	145,585
	cubic feet per year		gallons per year	
Residual manure solids and bedding sent to pond(s) w/factor:		59,197		442,822

RAINFALL AND RUNOFF

A. RAINFALL ESTIMATES

Rainfall station nearest the facility: Turlock

25 year/24 hour storm event (default NOAA Atlas 2, 1973): 2.50 inches/storage period

25 year/24 hour storm event (user-override): _____ inches/storage period

Storage period rainfall (default DWR climate data): 8.56 inches/storage period

Storage period rainfall (user-override): _____ inches/storage period

Flood zone: Zone X

B. IMPERVIOUS AREAS

Name	Surface Area (sq. ft.)	Quantity	25yr/24hr Storm Runoff Coefficient	Storage Period Runoff Coefficient	Runoff Destination
Conc. Feed/Manure Stacking Slab	112,334	1	0.79	0.82	Drains into pond(s).
Cow walk	4,080	2	0.79	0.82	Drains into pond(s).
Free stall feed lane	1,260	1	0.79	0.82	Drains into pond(s).

Free stall/heifer walk	7,000	2	0.79	0.82	Drains into pond(s).
Heifer feed lane	700	1	0.79	0.82	Drains into pond(s).
Middle free stall lane	1,320	2	0.79	0.82	Drains into pond(s).
Proposed Separator Pad	6,000	1	0.79	0.82	Drains into pond(s).

Surface area that does not run off into pond(s):	0 sq. ft.
Surface area that runs off into pond(s):	145,094 sq. ft.
Total surface area:	145,094 sq. ft.
Runoff from normal storage period rainfall:	634,874 gallons/storage period
Runoff from normal storage period rainfall with 1.5 factor:	952,311 gallons/storage period
25 year/24 hour storm event runoff:	178,635 gallons/storage period
Total surface area runoff:	813,509 gallons/storage period
Total surface area runoff with 1.5 factor:	1,130,946 gallons/storage period

C. ROOF AREAS

Name	Surface Area (sq. ft.)	Quantity	Runoff Destination
Center Freestall	74,200	1	Wastewater pond
Commodity Barn	5,200	1	Wastewater pond
East Freestall	29,000	1	Wastewater pond
Hay barn	6,000	1	Wastewater pond
Milk Barn	8,750	1	Wastewater pond
Office	1,950	1	Wastewater pond
Proposed Heifer Freestall	95,400	1	Field
Proposed West Freestall Addition	36,000	1	Field
Special Needs Barn	11,000	1	Wastewater pond
West Freestall	36,000	1	Wastewater pond

Surface area that does not run off into pond(s):	131,400 sq. ft.
Surface area that runs off into pond(s):	172,100 sq. ft.
Total surface area:	303,500 sq. ft.
Runoff from normal storage period rainfall:	918,343 gallons/storage period
Runoff from normal storage period rainfall with 1.5 factor:	1,377,515 gallons/storage period
25 year/24 hour storm event runoff:	268,208 gallons/storage period
Total surface area runoff:	1,186,551 gallons/storage period
Total surface area runoff with 1.5 factor:	1,645,723 gallons/storage period

D. EARTHEN AREAS

Name	Surface Area (sq. ft.)	Quantity	25yr/24 Storm Coefficient	Storage Period Coefficient	Runoff Destination
Earthen Areas subtracting roofs and conc.	301,787	1	0.35	0.20	Drains into pond(s).
Proposed Manure Stacking area	225,000	1	0.35	0.20	Drains into pond(s).

Surface area that does not run off into pond(s):	0	sq. ft.
Surface area that runs off into pond(s):	526,787	sq. ft.
Total surface area:	526,787	sq. ft.
Runoff from normal storage period rainfall:	562,198	gallons/storage period
Runoff from normal storage period rainfall with 1.5 factor:	843,297	gallons/storage period
25 year/24 hour storm event runoff:	287,338	gallons/storage period
Total surface area runoff:	849,536	gallons/storage period
Total surface area runoff with 1.5 factor:	1,130,635	gallons/storage period

E. TAILWATER MANAGEMENT

No fields with tailwater entered.

LIQUID STORAGE

A. POND OR BASIN DESCRIPTION: LG1

Pond is rectangular in shape: [X] Yes [ ] No

Dimensions

Earthen Length (EL):	860 ft.	Earthen Depth (ED):	11 ft.
Earthen Width (EW):	182 ft.	Side Slope (S):	1.5 ft. (h:1v)
Free Board (FB):	2 ft.	Dead Storage Loss (DS):	2.0 ft.

Calculations

Liquid Length (LL):	854 ft.	Storage Volume Adjusted for Dead Storage Loss:	977,452 cu. ft.
Liquid Width (LW):	176 ft.		
Pond Surface Area:	156,520 sq. ft.	Pond Marker Elevation:	8.3 ft.
Storage Volume:	1,229,778 cu. ft.	Evaporation Volume:	802,198 gals/period
		Adjusted Surface Area:	149,201 sq. ft.

POND OR BASIN DESCRIPTION: SB 1

Pond is rectangular in shape: [X] Yes [ ] No

Dimensions

Earthen Length (EL):	407 ft.	Earthen Depth (ED):	11 ft.
Earthen Width (EW):	60 ft.	Side Slope (S):	1.5 ft. (h:1v)
Free Board (FB):	2 ft.	Dead Storage Loss (DS):	0.0 ft.

Calculations

Liquid Length (LL):	401 ft.	Storage Volume Adjusted for Dead Storage Loss:	141,790 cu. ft.
Liquid Width (LW):	54 ft.		
Pond Surface Area:	24,420 sq. ft.	Pond Marker Elevation:	8.2 ft.
Storage Volume:	141,790 cu. ft.	Evaporation Volume:	113,593 gals/period
		Adjusted Surface Area:	21,127 sq. ft.

POND OR BASIN DESCRIPTION: SB 2

Pond is rectangular in shape: [X] Yes [ ] No

Dimensions

Earthen Length (EL):	407 ft.	Earthen Depth (ED):	11 ft.
Earthen Width (EW):	60 ft.	Side Slope (S):	1.5 ft. (h:1v)
Free Board (FB):	2 ft.	Dead Storage Loss (DS):	0.0 ft.

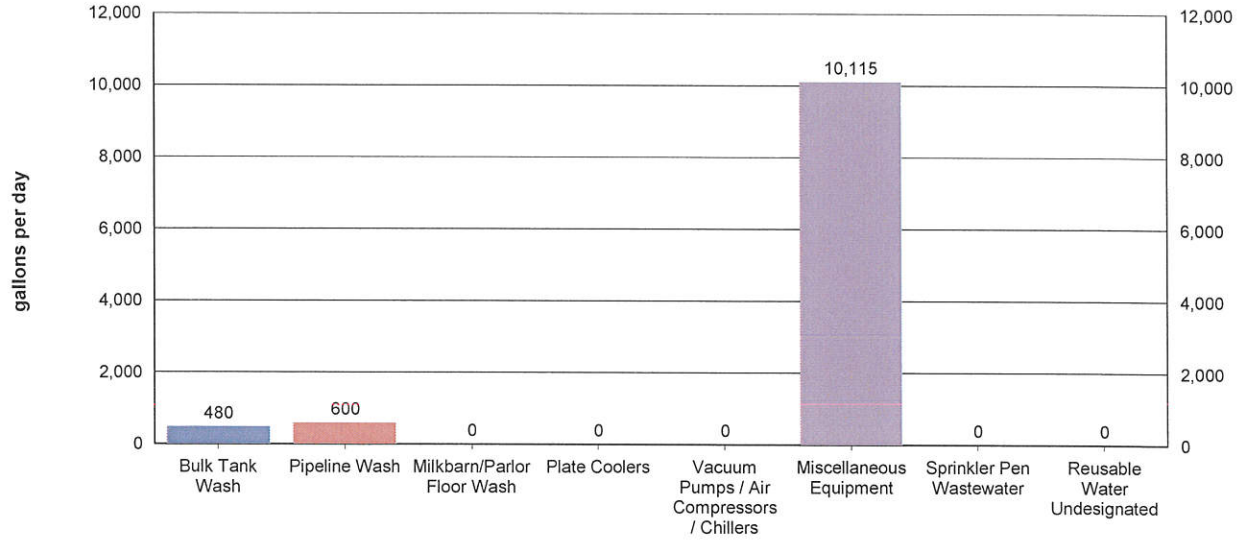
Calculations

Liquid Length (LL):	401 ft.	Storage Volume Adjusted for Dead Storage Loss:	141,790 cu. ft.
Liquid Width (LW):	54 ft.		
Pond Surface Area:	24,420 sq. ft.	Pond Marker Elevation:	8.2 ft.
Storage Volume:	141,790 cu. ft.	Evaporation Volume:	113,593 gals/period
		Adjusted Surface Area:	21,127 sq. ft.

Potential storage losses (due to dead storage):	252,326.0 cubic feet - or -	1,887,529.6 gallons
Liquid storage surface area:	193,612 sq. ft.	
Rainfall onto retention pond(s):	1,095,822 gallons/storage period	
Rainfall runoff into retention pond(s):	2,115,416 gallons/storage period	
Normal rainfall onto retention pond(s) with 1.5 factor:	1,643,733 gallons/storage period	
Normal rainfall runoff into retention pond(s) with 1.5 factor:	3,173,123 gallons/storage period	
Storage period evaporation (default):	11.50 inches/storage period	
Storage period evaporation (user-override):	inches/storage period	
Storage period evaporation volume:	1,029,384 gallons/storage period	
Manure and bedding sent to pond(s):	2,649,053 gallons/storage period	
Milkbarn water sent to pond(s):	1,343,400 gallons/storage period	
Fresh flush water for storage period:	0 gallons/storage period	

CHARTS

A. MILKBARN WASTEWATER SENT TO POND(S)

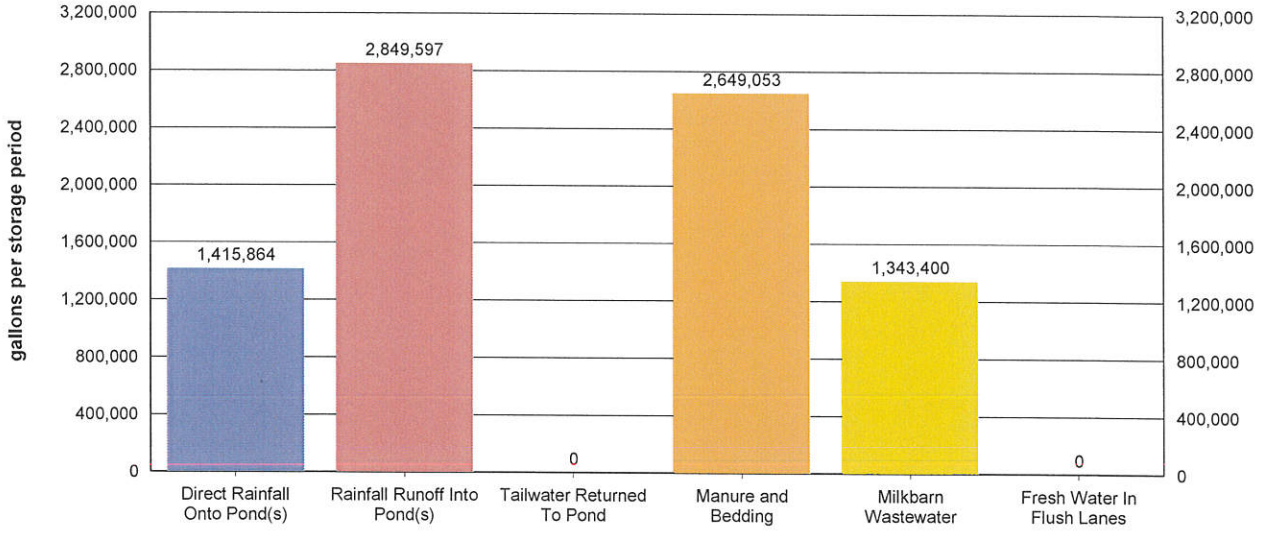


Values shown in chart are approximate values per day.

Total milkbarn wastewater generated daily: 11,195 gallons/day

Total milkbarn wastewater generated per period: 1,343,400 gallons/storage period

B. PROCESS WASTEWATER (NORMAL PRECIPITATION)

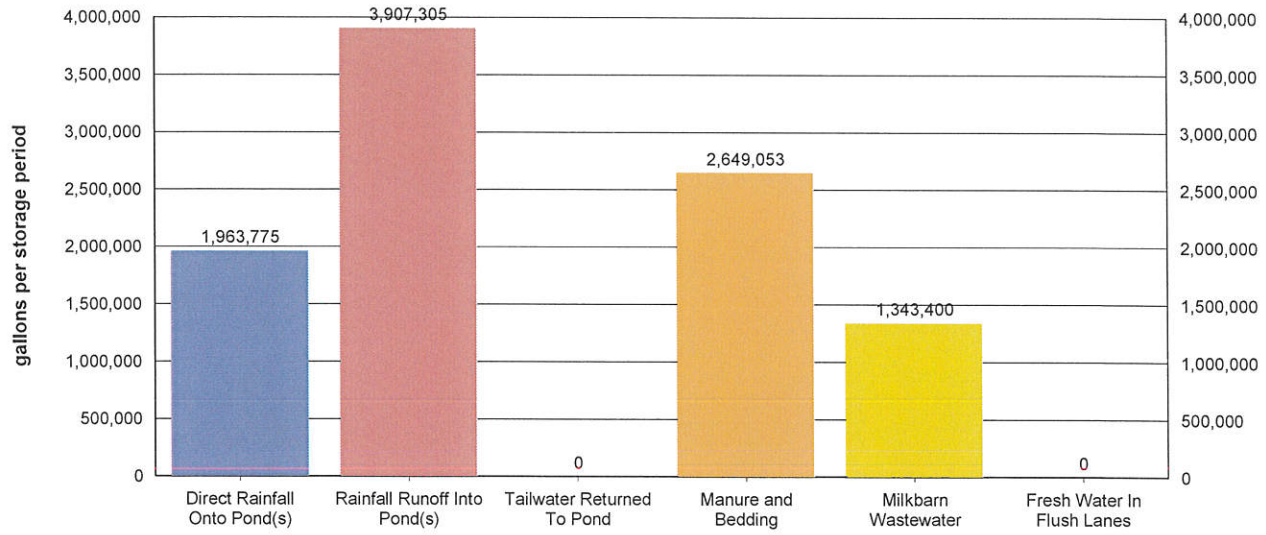


Values shown in chart are approximate values for storage period.

Storage period:	120	days
Total process wastewater generated daily:	68,816	gallons/day
Total process wastewater generated per period:	8,257,913	gallons/storage period
Total process wastewater removed due to evaporation:	1,029,384	gallons/storage period
Total storage capacity required:	7,228,529	gallons
	966,314	cu. ft.
Existing storage capacity (adjusted for dead storage loss):	9,433,174	gallons
	1,261,032	cu. ft.

Considering normal precipitation, existing capacity meets estimated storage needs: [X] Yes [ ] No

C. PROCESS WASTEWATER (NORMAL PRECIPITATION WITH 1.5 FACTOR)

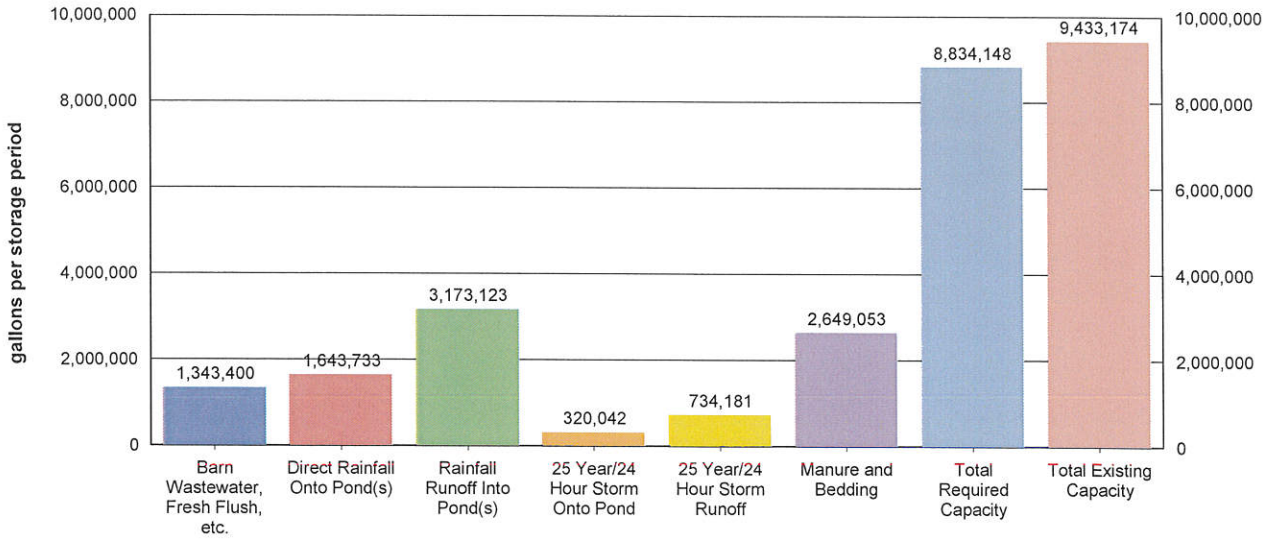


Values shown in chart are approximate values for storage period.

Storage period:	120	days
Total process wastewater generated daily:	82,196	gallons/day
Total process wastewater generated per period:	9,863,532	gallons/storage period
Total process wastewater removed due to evaporation:	1,029,384	gallons/storage period
Total storage capacity required:	8,834,148	gallons
	1,180,954	cu. ft.
Existing storage capacity (adjusted for dead storage loss):	9,433,174	gallons
	1,261,032	cu. ft.

Considering factored precipitation, existing capacity meets estimated storage needs: [X] Yes [ ] No

D. STORAGE VOLUME ASSESSMENT (NORMAL PRECIPITATION WITH 1.5 FACTOR)



Values shown in chart are approximate values for storage period.

Storage period:	120 days
Barn wastewater, fresh flush water, and tailwater:	1,343,400 gallons/storage period
Manure and bedding sent to pond:	2,649,053 gallons/storage period
Precipitation onto pond:	1,643,733 gallons/storage period
Precipitation runoff:	3,173,123 gallons/storage period
25 year/24 hour storm onto pond:	320,042 gallons/storage period
25 year/24 hour storm runoff:	734,181 gallons/storage period
Residual solids after liquids have been removed (liquid equivalent):	145,585 gallons/storage period
Total process wastewater removed due to evaporation:	1,029,384 gallons/storage period
Total required capacity:	8,834,148 gallons/storage period
Total existing capacity:	9,433,174 gallons/storage period
Existing capacity meets estimated storage needs:	[X] Yes [ ] No

OPERATION AND MAINTENANCE PLAN

The goal of the Operation and Maintenance Plan is to eliminate discharges of waste or storm water to surface waters from the production area and the protection of underlying soils and ground water.

A. POND MAINTENANCE

i. FREEBOARD MONITORING

1. Freeboard will be monitored monthly from June 1 through September 1 (dry season) and weekly from October 1 through May 31 (wet season). The results will be recorded on a Dairy Production Area Visual Inspection Form.
2. Freeboard will be monitored during and after each significant storm event and the results recorded on a Production Area Significant Storm Event Inspection Form.
3. Ponds will be photographed on the first day of each month. Pond photos will be labeled and maintained with the dairy's monitoring records.

ii. PREPARATION FOR MAINTAINING WINTER STORAGE CAPACITY

1. The retention pond(s) will begin to be lowered to the minimum operating level on or before a designated date each year.
2. The minimum operating level will include the necessary storage volume as identified in Section II.A in Attachment B of the General Order.

iii. OTHER POND MONITORING

1. At the time of each monitoring for freeboard, the pond(s) will be inspected for evidence of excessive odors, mosquito breeding, algae, or equipment damage; and issues with berm integrity, including cracking, slumping, erosion, excess vegetation, animal burrows, and seepage. Any issues identified and corrective actions performed will be recorded on a Dairy Production Area Visual Inspection Form - Other Pond Monitoring.
2. At the time of each monitoring during and after each significant storm event, the ponds will be inspected for evidence of any discharge and issues with berm integrity, including cracking, slumping, erosion, excess vegetation, animal burrows, and seepage. Any issues identified and corrective actions performed will be recorded on a Production Area Significant Storm Event Inspection Form.

iv. SOLIDS REMOVAL PROCEDURES

1. The average thickness of the solids accumulated on the bottom of the pond(s) will be measured on the designated interval using the owner, operator, and/or designer specified procedure.
2. Once solids/sludge on the bottom of the pond(s) reach the owner, operator, and/or designer specified critical thickness, solids/sludge will be removed so that adequate capacity is maintained.
3. When necessary, solids/sludge will be removed using the owner, operator, and/or designer specified methods for protecting any pond liner.

OPERATIONS AND MAINTENANCE PLAN FOR POND: SB 1

Dry season freeboard monitoring will occur on the 5th of each month.

Wet season freeboard monitoring will occur every Monday of each week.

Process wastewater pond contents will be lowered to the minimum operating level (elevation) of 0.0 feet above the pond invert beginning in September of each year.

Sludge accumulation will be measured annually.

The following method will be used to measure solids/sludge accumulation:

After basin cleanout, sludge thickness should be easily measured with a probe.

When solids/sludge accumulate to a thickness of 2.0 feet, the following method will be used to maintain adequate storage capacity while protecting any pond liner:

Sludge/solids will be removed by excavator or pumping to slurry tanks. The operator in either method will be cautioned to not disturb the soil liner of the basin.

OPERATIONS AND MAINTENANCE PLAN FOR POND: SB 2

Dry season freeboard monitoring will occur on the 5th of each month.

Wet season freeboard monitoring will occur every Monday of each week.

Process wastewater pond contents will be lowered to the minimum operating level (elevation) of 0.0 feet above the pond invert beginning in September of each year.

Sludge accumulation will be measured annually.

The following method will be used to measure solids/sludge accumulation:

After basin cleanout, sludge thickness should be easily measured with a probe.

When solids/sludge accumulate to a thickness of 2.0 feet, the following method will be used to maintain adequate storage capacity while protecting any pond liner:

Sludge/solids will be removed by excavator or pumping to slurry tanks. The operator in either method will be cautioned to not disturb the soil liner of the basin.

OPERATIONS AND MAINTENANCE PLAN FOR POND: LG1

Dry season freeboard monitoring will occur on the 5th of each month.

Wet season freeboard monitoring will occur every Monday of each week.

Process wastewater pond contents will be lowered to the minimum operating level (elevation) of 2.0 feet above the pond invert beginning in April of each year.

Sludge accumulation will be measured annually.

The following method will be used to measure solids/sludge accumulation:

Sludge accumulation should be measured at pond drawdown with a probe that can indicate sludge thickness.

When solids/sludge accumulate to a thickness of 2.0 feet, the following method will be used to maintain adequate storage capacity while protecting any pond liner:

Water is added throughout the year to dilute solids. Solids are pumped out during irrigations. If necessary, storage can also be agitated and pumped into slurry wagons or directly excavated for Spring and/or Fall application. If excavation is required, cleaning equipment operator will be informed as to overall depth of storage and instructed to remain 6-12 inches from the floor.

B. RAINFALL COLLECTION SYSTEM MAINTENANCE

i. Annually, rainfall collection systems will be assessed to ensure:

1. Conveyances are free of debris and operating within designer/manufacturer specifications.
2. Components are properly fastened according to designer/manufacturer specifications.
3. All downspouts and related infrastructure are connected to conveyances that divert water away from manured areas.
4. Water from the rainfall collection system(s) is diverted to an appropriate destination.

Buildings with rooftop rainfall collection systems	Quantity	Surface Area (sq. ft.)
Center Freestall	1	74,200

Commodity Barn	1	5,200
East Freestall	1	29,000
Hay barn	1	6,000
Milk Barn	1	8,750
Office	1	1,950
Proposed Heifer Freestall	1	95,400
Proposed West Freestall Addition	1	36,000
Special Needs Barn	1	11,000
West Freestall	1	36,000

Assessment for buildings with rooftop rainfall collection systems will occur on or before: 1st of October

Assessment for other rainfall collections systems will occur on or before: 1st of November

Description of how rainfall collection systems will be assessed:

Gutters and downspouts will be cleaned and repaired as needed to prevent unneeded overland flow of runoff.

C. CORRAL MAINTENANCE

i. Monthly from June 1st through September 30th (dry season) and weekly from October 1st through May 31st (wet season), the perimeter of the corrals and pens will be assessed to ensure that runon and runoff controls such as berms are functioning correctly, and that all water that contacts waste is collected and diverted into the wastewater retention pond (s). Any issues identified and corrective actions performed will be recorded on a Dairy Production Area Visual Inspection Form - Corrals.

ii. The corrals will be assessed by the designated date to determine:

1. Whether manure needs to be removed from the corrals based on the owner, operator, and/or designer specified conditions.

2. Whether there are depressions within the corrals that should be filled/groomed to prevent ponding.

iii. Removal of manure and/or regrading, when necessary, will be completed on or before the designated month/day of each year.

Day of the month dry season assessment will occur: 1st of each month

Day of the week wet season assessment will occur: Monday

Solid manure removal and regrading assessment will occur on or before: 1st of October

Conditions requiring manure removal and/or regrading:

Corral conditions should be assessed by October 1 of each year to allow the owner/operator the opportunity to regrade and add fill material to the corrals. The corrals should be graded to prevent accumulation of wastewater in the corrals for longer than 48 hours. Well maintained/scraped corrals should provide adequate drainage at 1% to 1 1/2% slop. During the rainy season, corrals must still be groomed or cleaned to provide adequate drainage. Corral manure management must be in accordance with SJVAPCD permit requirements.

Solid manure removal and/or regrading will occur on or before: 1st of November

D. FEED STORAGE AREA MAINTENANCE

i. During the dry season and prior to the wet season, the perimeter of storage areas will be assessed to ensure all runon and runoff controls such as berms are functioning correctly and runoff and leachate from the areas are collected and diverted into the wastewater pond(s). Any issues identified and corrective actions performed will be recorded on a Dairy Production Area Visual Inspection Form - Manure and Feed Storage Areas.

ii. During the wet season, feed storage area(s) will be assessed to determine if there are depressions within any feed storage area that should be filled or repaired to prevent ponding.

iii. Any necessary regrading/resurfacing and berm/conveyance maintenance will be completed on an annual basis.

Day of the month dry season assessment will occur: 1st of each month

Day of the week wet season assessment will occur: Monday

Regrading/resurfacing and berm maintenance assessment will occur on or before: 1st of October

Regrading/resurfacing and berm maintenance completion will occur on or before: 1st of November

E. SOLID MANURE STORAGE AREA MAINTENANCE

i. During the dry season and prior to the wet season, the perimeter of manure storage areas will be assessed to ensure all runon and runoff controls such as berms are functioning correctly and runoff and leachate from the areas are collected and diverted into the wastewater pond(s). Any issues identified and corrective actions performed will be recorded on a Dairy Production Area Visual Inspection Form - Manure and Feed Storage Areas.

ii. During the wet season, manure storage area(s) will be assessed to determine if there are depressions within any manure storage area that should be filled to prevent ponding.

iii. Any necessary regrading/resurfacing and berm/conveyance maintenance will be completed on an annual basis.

Day of the month dry season assessment will occur: 1st of each month

Day of the month wet season assessment will occur: Monday

Regrading/resurfacing and berm maintenance assessment will occur on or before: 1st of October

Regrading/resurfacing and berm maintenance completion will occur on or before: 1st of November

F. ANIMAL HOUSING AND FLUSH WATER CONVEYANCE SYSTEM MAINTENANCE

i. A map will be attached that identifies critical points for monitoring the animal housing and flush water conveyance system to verify that water is being managed as identified in this Waste Management Plan. These points will be maintained at owner, operator, and/or designer specified intervals.

Animal housing area assessment will occur on or before: 1st of October

Animal housing drainage system maintenance will occur on or before: 1st of November

Animal housing area drainage system assessment and maintenance methods:

Debris is removed from flush lanes, drains, and corral drains as needed. Pumps are monitored daily. Corrals are regraded and soil is added as needed to insure drainage. The critical animal housing/flush conveyance points to monitor are all drains. These drains should be checked before every storm and during each flush event to insure that drain/conveyance clogging has not occurred.

G. MORTALITY MANAGEMENT

i. Dead animals will be stored, removed, and disposed of properly.

Rendering company or landfill name: Sisk

Rendering company or landfill telephone number: (209) 667-1451

H. ANIMALS AND SURFACE WATER MANAGEMENT

i. A system will be in place, monitored, and maintained to prevent animals from entering any surface waters when a stream or other surface water crosses or adjoins the corral(s).

Does a stream or any other surface water cross or adjoin the corrals? [ ] Yes [X] No

I. MONITORING SALT IN ANIMAL RATIONS

i. The combined quantity of minerals as salt in animal drinking water and feed rations will be reviewed by a qualified nutritionist on a routine basis to verify that minerals are limited to the amount required to maintain animal health and optimum production. As feed rations change, mineral content may change.

Assessment interval: Monthly

J. CHEMICAL MANAGEMENT

i. Chemicals and other contaminants handled at the facility will not be disposed of in any manure or process wastewater, storm water storage or treatment system unless specifically designed to treat such chemicals and other contaminants.

Chemical Name	Quantity	Units	Frequency	Usage Area	Destination (Used Chemical / Container)	Disposal Company Name	Disposal Company Phone	Collection Frequency
Chlorine Dioxide	400	gallons	month	Milk Barn	Recycled by distributor			
Detergent	140	gallons	month	Milk Barn	Recycled by distributor			
Sanitizer	80	gallons	month	Milk Barn	Recycled by distributor			
Acid	80	gallons	month	Milk Barn	Recycled by distributor			

REQUIRED ATTACHMENTS

The following list, based upon user selections and data entries, describes the minimum required attachments that must be submitted with the Waste Management Plan for the reporting schedule of 'July 1, 2010'.

A. SITE MAP(S)

Provide a site map (or maps) of appropriate scale to show property boundaries and the location of the features of the production area including the following in sufficient detail: structures used for animal housing, milk parlor, and other buildings; corrals and ponds; solids separation facilities (settling basins or mechanical separators); other areas where animal wastes are deposited or stored; feed storage areas; drainage flow directions and nearby surface waters; all water supply wells (domestic, irrigation, and barn wells) and groundwater monitoring wells.

Production area map reference number: Production area map

Provide a site map (or maps) of appropriate scale to show property boundaries and the location of the features of all land application areas (land 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) including the following in sufficient detail: a field identification system (Assessor's Parcel Number; field by name or number; total acreage of each field; crops grown; indication if each field is owned, leased, or used pursuant to a formal agreement); 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.

Application area map reference number: Land application map

Provide a site map (or maps) of appropriate scale to show property boundaries and the location of all cropland (land that is part of the dairy but not used for dairy waste application) including the following in sufficient detail: Assessor's Parcel Number, total acreage, crops grown, and information on who owns or leases the field. The Waste Management Plan shall indicate if such cropland is covered under the Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands (Order No. R5-2006-0053 for Coalition Group or Order No. R5-2006-0054 for Individual Discharger, or updates thereto).

Non-application area map reference number: Production area map

Provide a site map (or maps) of appropriate scale to show property boundaries and the location of all off-property domestic wells within 600 feet of the production area or land application area(s) associated with the dairy and the location of all municipal supply wells within 1,500 feet of the production area or land application area(s) associated with the dairy.

Well area map reference number: Production area map

Provide a site map (or maps) of appropriate scale to show property boundaries and a vicinity map, north arrow and the date the map was prepared. The map shall be drawn on a published base map (e.g., a topographic map or aerial photo) using an appropriate scale that shows sufficient details of all facilities.

Vicinity map reference number: Vicinity map

B. PROCESS WASTEWATER MAP(S)

Provide a site map (or maps) of appropriate scale to show property boundaries and the location of the features of the production area including the following in sufficient detail: process wastewater conveyance structures, discharge points, and discharge /mixing points with irrigation water supplies; pumping facilities and flow meter locations; upstream diversion structures, drainage ditches and canals, culverts, drainage controls (berms/levees, etc.), and drainage easements; and any additional components of the waste handling and storage system.

Production infrastructure system area map reference number: Figure 2

Provide a site map (or maps) of appropriate scale to show property boundaries and the location of the features of all land application areas (land 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) including the following in sufficient detail: process wastewater conveyance structures, discharge points and discharge mixing points with irrigation water supplies; pumping facilities ; flow meter locations; drainage ditches and canals, culverts, drainage controls (berms, levees, etc.), and drainage easements.

Land application infrastructure system area map reference number: Figure 3

C. EXCESS PRECIPITATION CONTINGENCY REPORT

There were no attachment references entered or required for this attachment section.

D. OPERATION AND MAINTENANCE PLAN

Attach a map that identifies critical points for monitoring the system to verify that water is being managed as identified in this Waste Management Plan (see Attachment B, Pg B-7 V.F, V.G, and V.H for additional requirements).

Animal housing assessment map reference number: Site Plan

E. FLOOD PROTECTION / INUNDATION REPORT

Provide a published flood zone map that shows the facility is outside the relevant flood zones.

Flood zone map and/or document reference number: FEMA Flood Map

F. BACKFLOW PROTECTION

Attach documentation from a trained professional (i.e. a person certified by the American Backflow Prevention Association, an inspector from a state or local governmental agency who has experience and/or training in backflow prevention, or a consultant with such experience and/or training), as specified in Required Reports and Notices H.1 of Waste Discharge Requirements General Order No. R5-2007-0035, that there are no cross-connections that would allow the backflow of wastewater into a water supply well, irrigation well, or surface water as identified on the Site Map.

Backflow documentation reference number: Backflow protc doc

Waste Management Plan Report
General Order No. R5-2007-0035, Attachment B
July 1, 2010 deadline

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 have reviewed the portion of the waste management plan that is related to storage capacity facility and design specifications in accordance with Item II, Attachment B of the Waste Discharge Requirements General Order for Existing Milk Cow Dairies - Order No. R5-2007-0035 and certify that this plan was prepared by, or under the responsible charge of, and certified by a civil engineer who is registered pursuant to California law or other person as may be permitted under the provisions of the California Business and Professions Code to assume responsible charge of such work.

Storage capacity is:

Insufficient

☐ Retrofitting Plan/Schedule/Design Criteria attached in accordance with Attachment B, II.B. 1-5 and Attachment B, II. C.

Sufficient

☒ Certification 1 - Certified in accordance with Attachment B, II. A. 1-8. (no contingency plan)

☐ Certification 2 - Certified in accordance with Attachment B, II. A. 1-8, II. C. (with contingency plan attached)

CIVIL ENGINEER'S WET STAMP

SIGNATURE OF CIVIL ENGINEER

9/1/20
DATE

Michael Mitchell
PRINT OR TYPE NAME

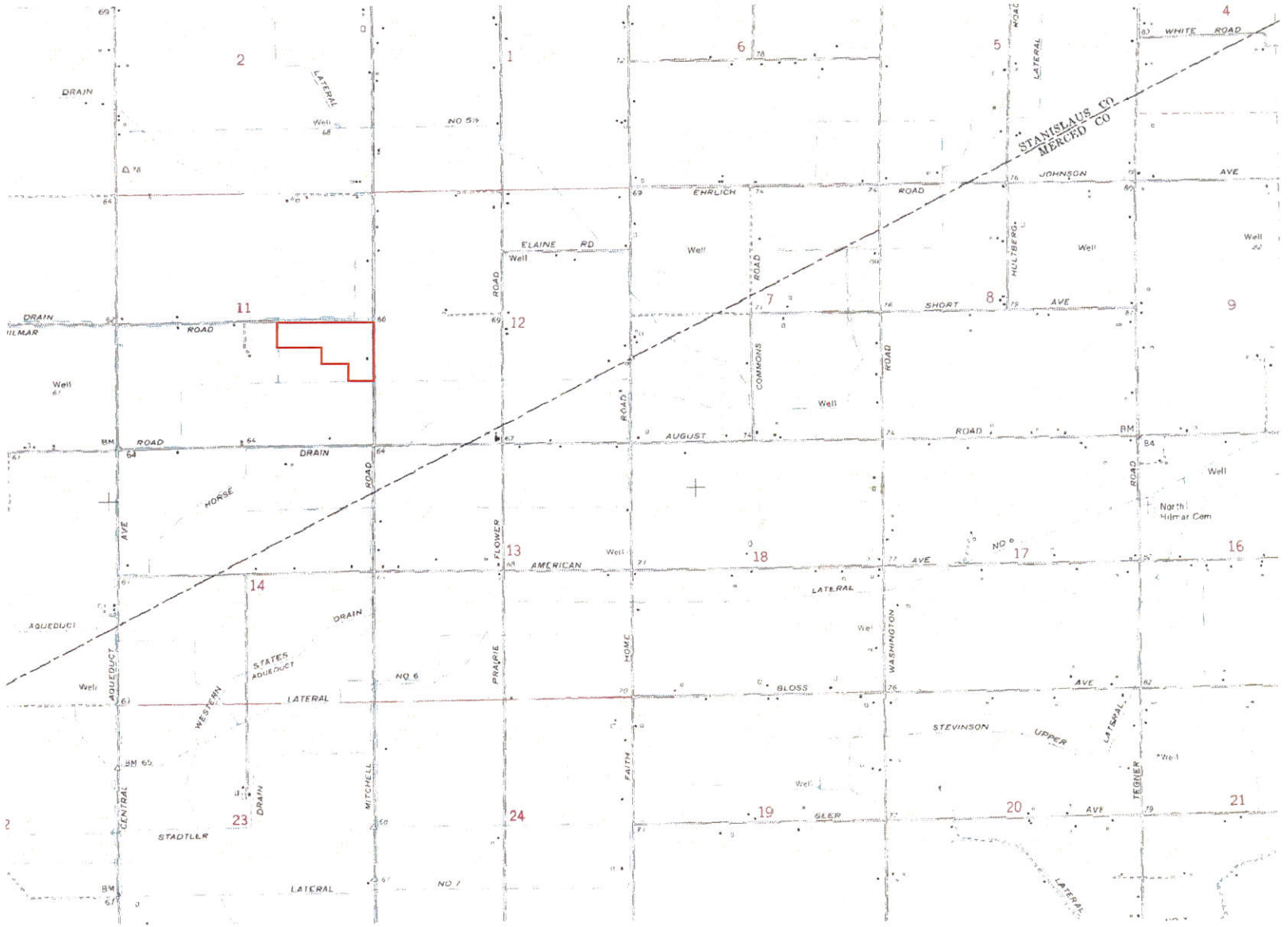
18836 Clausen RD; Turlock, CA 95380
MAILING ADDRESS

(209) 664-1067
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	
SIGNATURE OF OWNER	SIGNATURE OF OPERATOR
Isabel Machado	John Machado
PRINT OR TYPE NAME	PRINT OR TYPE NAME
09-01-20	9/1/20
DATE	DATE



LEGEND

Facility Boundary

Ag Services, Inc.

SCALE:

0 4,000 8,000

APPROXIMATE SCALE IN FEET

MACHADO DAIRY
STANISLAUS COUNTY, CA

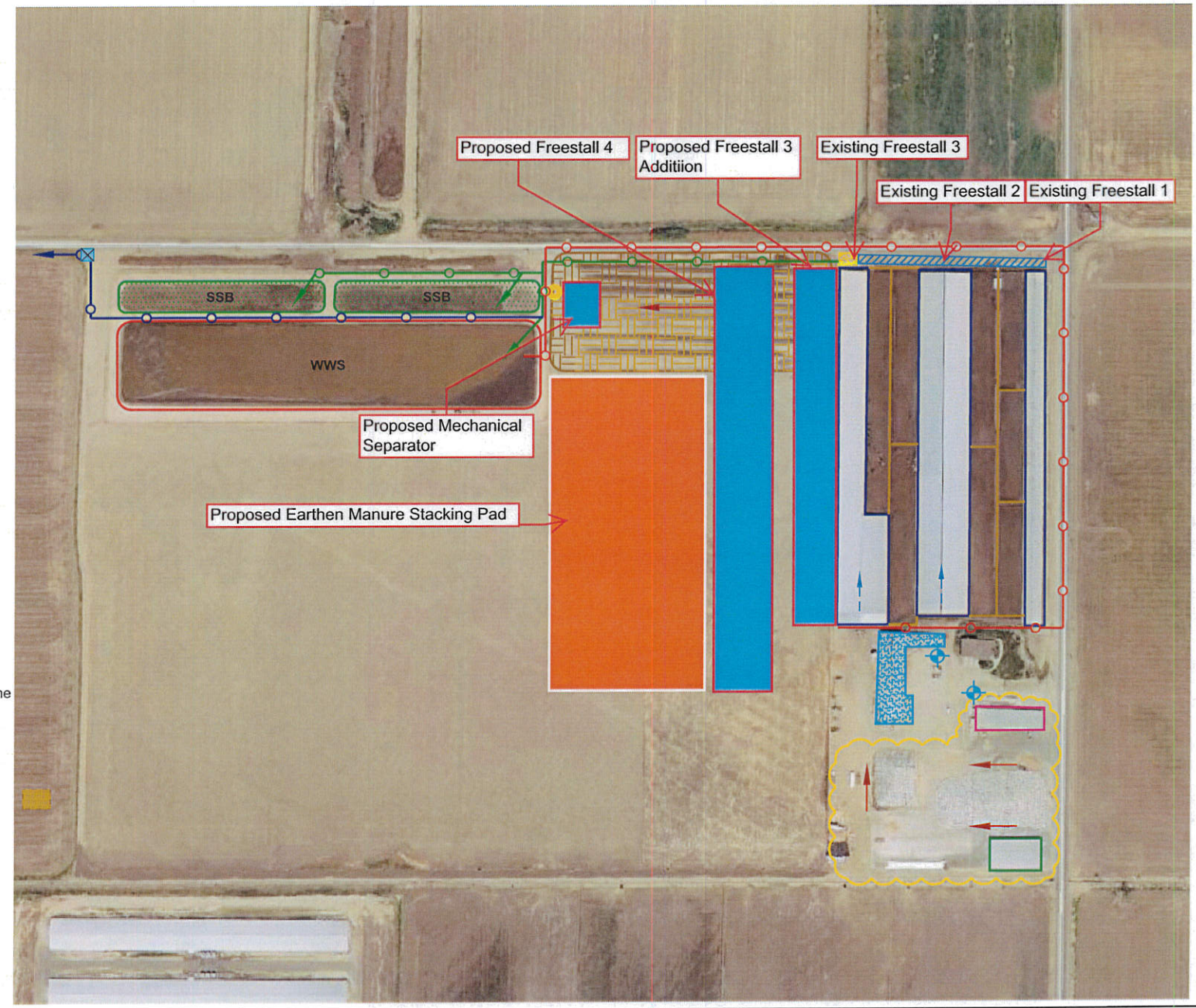
FIGURE 1
TOPOGRAPHIC MAP

PROJECT NO.	DATE:	DRAWN BY:	APP. BY:
FRA-00	9/2/20	SB	JR

Machado-land application

LEGEND

- Animal Housing/Shade
- Wastewater Storage
- Hay Barn
- Commodity Barn
- Milk Barn
- Sand Trap
- Corral
- Solids Settling Basin
- Manure Storage
- Pump
- Drain
- Domestic Well
- Feed Storage Area
- Flush Return Pipeline
- Flush Delivery Pipeline
- Clean Water Diversion Pipeline
- Drainage Flow
- Flush Flow Direction
- Flush Return Lane



Ag Services, Inc.

SCALE:

0 300 600

APPROXIMATE SCALE IN FEET

MACHADO DAIRY
STANISLAUS COUNTY, CA

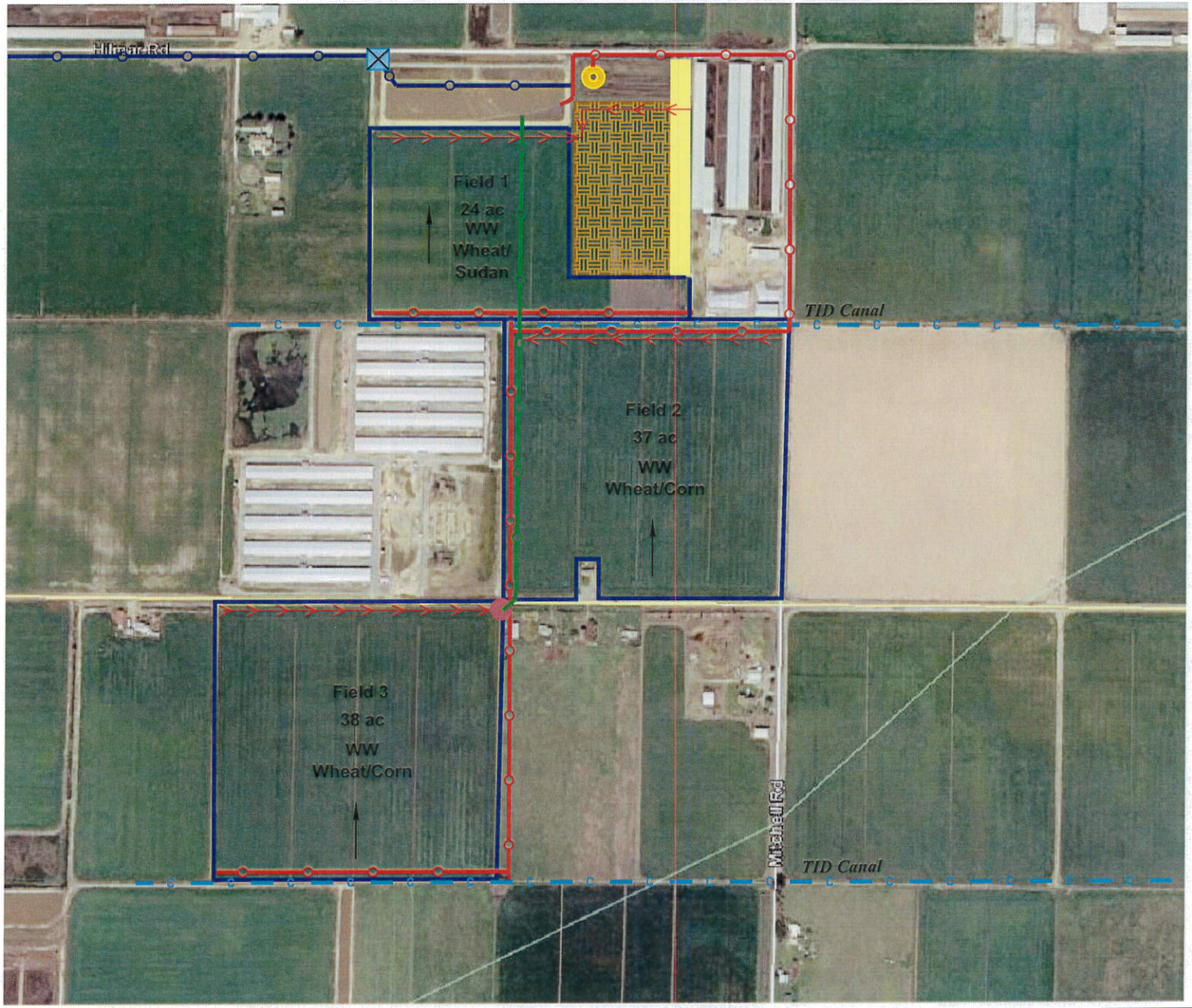
FIGURE 2
DAIRY FACILITY

PROJECT NO.	DATE:	DRAWN BY:	APP. BY:
FRA-00	3/13/18	SB	JR

Machado-land application

LEGEND

- Fields
- Manure Stacking Pad
- Tailwater Return Pipeline
- Wastewater Pipeline
- Clean Water Delivery Pipeline
- Irrigation Flow
- Drainage Flow
- TID Canal
- Drain
- Pump
- WW — Wastewater



Ag Services, Inc.

SCALE:

0 700 1500

APPROXIMATE SCALE IN FEET

MACHADO DAIRY
STANISLAUS COUNTY, CA

FIGURE 3
LAND APPLICATION AREA

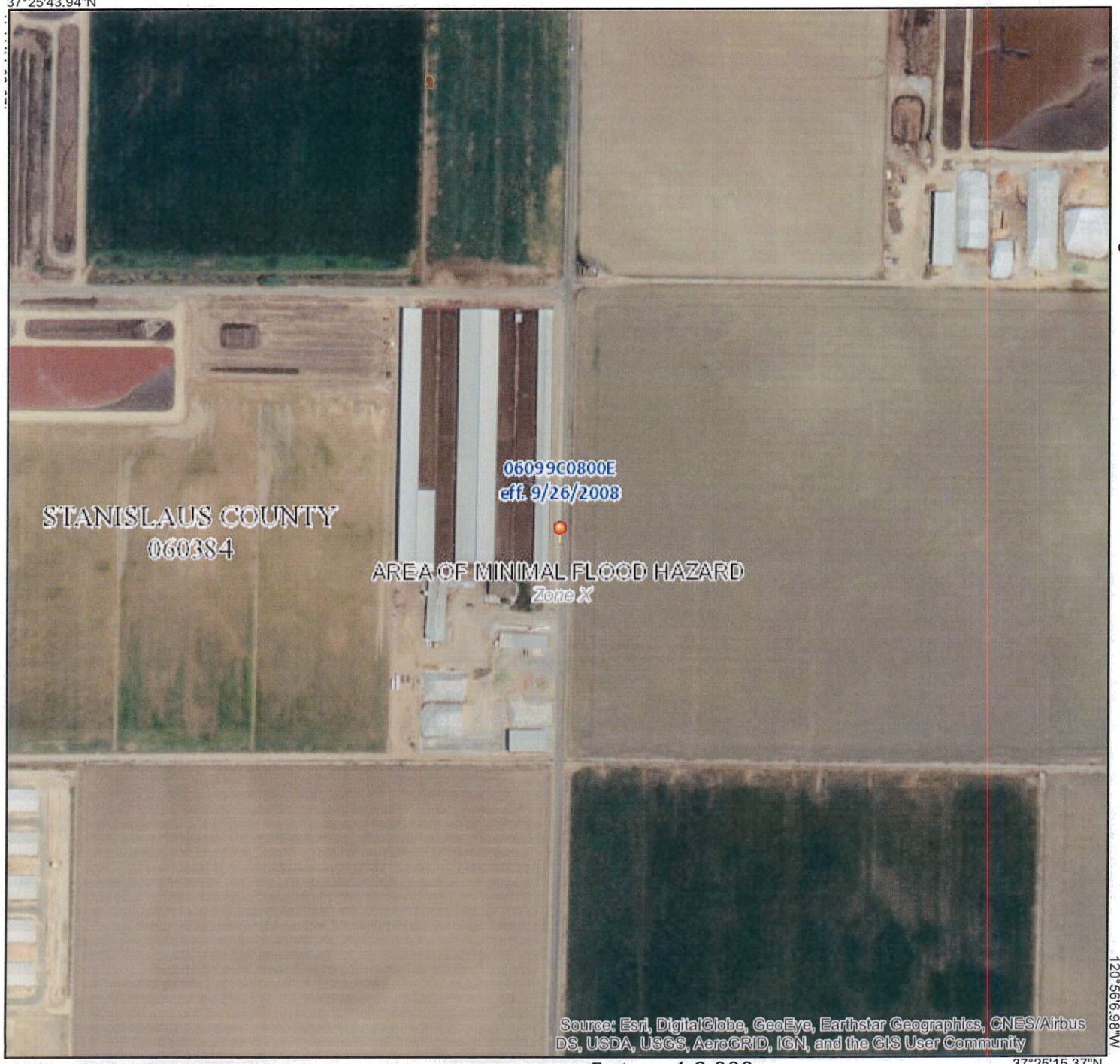
PROJECT NO.	DATE:	DRAWN BY:	APP. BY:
FRA-00	9/2/20	SB	JR

Machado-land application

National Flood Hazard Layer FIRMette

FEMA

37°25'43.94"N



120°56'6.98"W

37°25'15.37"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth
- Regulatory Floodway *Zone AE, AO, AH, VE, AR*

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Area of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN — Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 — Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- 513 — Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The base map shown complies with FEMA's base map accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 4/23/2018 at 7:53:59 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: base map imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

NUTRIENT MANAGEMENT PLAN

Machado Dairy
c/o: John Machado
7413 So. Mitchell Rd.
Turlock, CA 95380

Prepared By:

FR Ag Services, Inc.

2857 Geer Road, Suite A
Turlock, California 95382

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

OPERATOR NAME: Machado, John Telephone no.: (Landline) (209) 652-6929 (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

LEGAL OWNER NAME: Machado, John Telephone no.: (Landline) (209) 652-6929 (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: Ramos, Joe Telephone no.: (209) 250-2471 (Landline) (209) 226-2375 (Cellular)

Title: Technical Service Provider

2857 Geer RD, STE A	Turlock	CA	95382
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:

1,700 *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	1,100	80	50	0	0	0
Maximum count	1,500	200	450	450	260	200
Avg live weight (lbs)	1,400	1,400	900	650		
Daily hours on flush	18	24	18	24	24	0

Predominant milk cow breed: Holstein

Average milk production: 77 *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)	1.00	0.00	0.00	15 *cfs*
TID Canal	Surface water (canal, river)	1.50	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	8,250.00 *ton*	30.0%	2.500%	1.500%	1.750%
Waste Water Fall	7,000,000.00 *gal*	0.0%	0.090%	0.025%	0.066%
Waste Water Spring	7,000,000.00 *gal*	0.0%	0.090%	0.040%	0.070%
Waste Water Summer	7,000,000.00 *gal*	0.0%	0.040%	0.030%	0.040%

Total nitrogen exported: 417,263.00 *lbs*

Total phosphorus exported: 99,961.24 *lbs*

Total potassium exported: 253,096.38 *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: 24

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	Early November	Late April	24
Sudangrass, silage	Middle May	Early October	24

FIELD NAME: Field 2

Cropable acres: 37

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	Early November	Late April	37
Corn, silage	Middle June	Middle September	37

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	Early November	Late April	38
Corn, silage	Middle June	Middle September	38

C. LAND APPLICATION AREA FIELDS AND PARCELS

Field name	Cropable acres	Total harvests	Parcel number
Field 1	24	2	0057-0007-00050000
Field 2	37	2	0057-0007-00060000
Field 3	38	2	0057-0023-00040000
Land application area totals	99	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)	1	70.0	17.0	70.0	71.5
Nutrient source: Retention pond (lagoon)		75%	50%	80%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	1.5	0.0	0.0	7.0
	1.5	0.0	0.0	

In season irrigation (with fertilizer)	2	70.0	17.0	70.0	142.5
Nutrient source: Retention pond (lagoon)		75%	50%	80%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	1.3	0.0	0.0	6.0
	1.3	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	4.0	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	210.0	51.0	210.0
Other	0.0	0.0	0.0
Atmospheric deposition	7.0		
Nutrients applied	221.0	51.0	210.0
Potential crop nutrient removal	160.0	25.6	132.8
Nutrient balance	61.0	25.4	77.2
Applied to removal ratio	1.38	1.99	1.58

Fresh water applied: 0.98 *feet* Total harvests: 1

NUTRIENT BUDGET FOR CROP: Field 1 / Sudangrass, 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 / Sudangrass, 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	54.0	15.0	54.0	55.7
Nutrient source: Retention pond (lagoon)		75%	50%	80%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	1.7	0.0	0.0	8.0
	1.7	0.0	0.0	

In season irrigation (no fertilizer)	6	0.0	0.0	0.0	7.6
Nutrient source: Water only		0%	0%	0%	
Application method: Surface					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	1.3	0.0	0.0	6.0
	1.3	0.0	0.0	

In season irrigation (with fertilizer)	3	27.0	7.5	27.0	84.8
Nutrient source: Retention pond (lagoon)		75%	50%	80%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	1.3	0.0	0.0	6.0
	1.3	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	13.1	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	135.0	37.5	135.0
Other	0.0	0.0	0.0
Atmospheric deposition	7.0		
Nutrients applied	155.1	37.5	135.0
Potential crop nutrient removal	112.0	21.0	92.4
Nutrient balance	43.1	16.5	42.6
Applied to removal ratio	1.38	1.79	1.46

Fresh water applied: 3.20 *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)	1	70.0	17.0	70.0	71.5
Nutrient source: Retention pond (lagoon)		75%	50%	80%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	1.5	0.0	0.0	11.0
	1.5	0.0	0.0	

In season irrigation (with fertilizer)	2	86.0	15.0	70.0	174.2
Nutrient source: Retention pond (lagoon)		75%	50%	80%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	1.1	0.0	0.0	8.0
	1.1	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	3.7	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	242.0	47.0	210.0
Other	0.0	0.0	0.0
Atmospheric deposition	7.0		
Nutrients applied	252.7	47.0	210.0
Potential crop nutrient removal	180.0	28.8	149.4
Nutrient balance	72.7	18.2	60.6
Applied to removal ratio	1.40	1.63	1.41

Fresh water applied: 0.90 *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)	1	67.5	18.5	67.5	69.4
Nutrient source: Retention pond (lagoon)		60%	60%	80%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	1.9	0.0	0.0	14.0
	1.9	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)	2	0.0	0.0	0.0	3.3
Nutrient source: Water only		0%	0%	0%	
Application method: Surface					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	1.6	0.0	0.0	12.0
	1.6	0.0	0.0	

In season irrigation (with fertilizer)	5	45.0	12.5	45.0	231.8
Nutrient source: Retention pond (lagoon)		75%	50%	80%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	1.4	0.0	0.0	10.0
	1.4	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	12.0	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	292.5	81.0	292.5
Other	0.0	0.0	0.0
Atmospheric deposition	7.0		
Nutrients applied	311.5	81.0	292.5
Potential crop nutrient removal	224.0	42.0	184.8
Nutrient balance	87.5	39.0	107.7
Applied to removal ratio	1.39	1.93	1.58

Fresh water applied: 2.95 *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	70.0	17.0	70.0	71.6
Nutrient source: Retention pond (lagoon)		75%	50%	80%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	1.6	0.0	0.0	12.0
	1.6	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	86.0	15.0	70.0	173.6
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	0.8	0.0	0.0	9.0
	0.8	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	3.2	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	242.0	47.0	210.0
Other	0.0	0.0	0.0
Atmospheric deposition	7.0		
Nutrients applied	252.2	47.0	210.0
Potential crop nutrient removal	180.0	28.8	149.4
Nutrient balance	72.2	18.2	60.6
Applied to removal ratio	1.40	1.63	1.41

Fresh water applied: 0.98 *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	67.5	18.5	67.5	69.5
Nutrient source: Retention pond (lagoon)		60%	60%	80%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	2.0	0.0	0.0	15.0
	2.0	0.0	0.0	

In season irrigation (no fertilizer)	2	0.0	0.0	0.0	3.5
Nutrient source: Water only		0%	0%	0%	
Application method: Surface					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	1.7	0.0	0.0	13.0
	1.7	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)	5	45.0	12.5	45.0	232.3
Nutrient source: Retention pond (lagoon)		75%	50%	80%	
Application method: Pipeline					

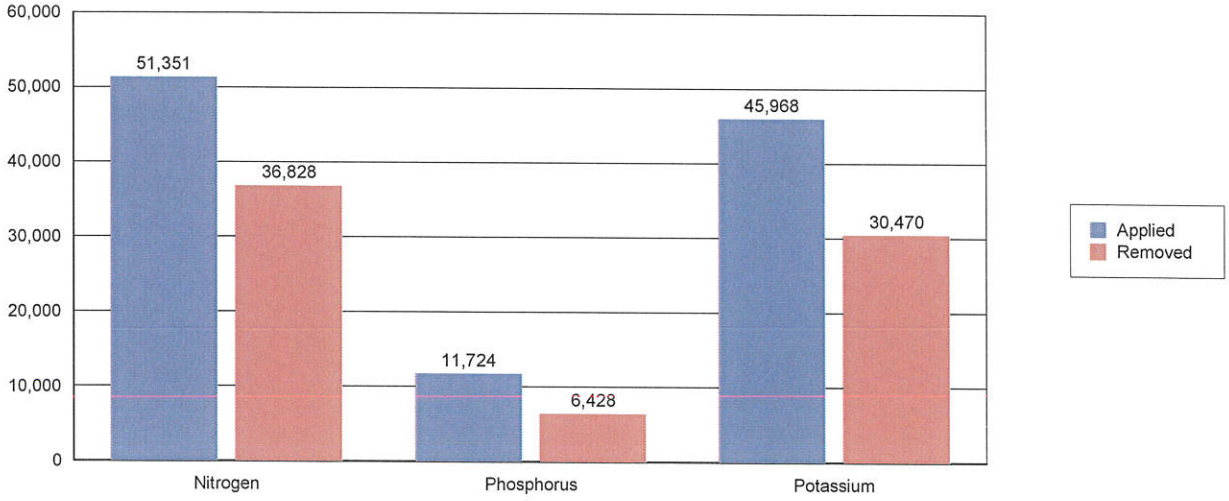
Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	1.5	0.0	0.0	11.0
	1.5	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	12.8	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	292.5	81.0	292.5
Other	0.0	0.0	0.0
Atmospheric deposition	7.0		
Nutrients applied	312.3	81.0	292.5
Potential crop nutrient removal	224.0	42.0	184.8
Nutrient balance	88.3	39.0	107.7
Applied to removal ratio	1.39	1.93	1.58

Fresh water applied: 3.13 *feet* Total harvests: 1

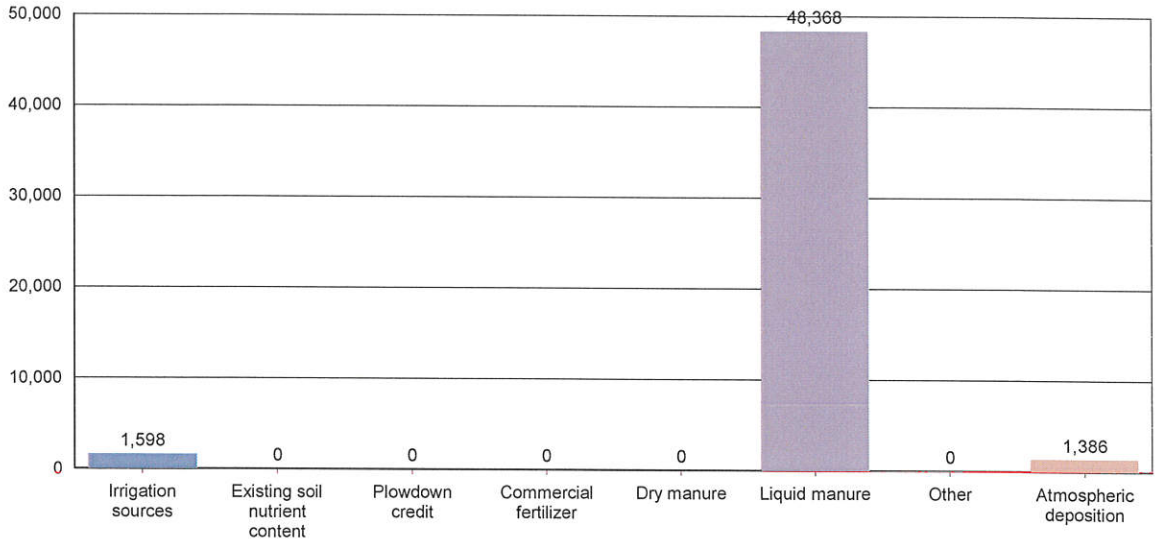
NUTRIENT APPLICATIONS, POTENTIAL REMOVAL, AND BALANCE

A. POUNDS OF NUTRIENT APPLIED VS. CROP REMOVAL POTENTIAL



	Total N (lbs)	Total P (lbs)	Total K (lbs)
Irrigation sources	1,597.8	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	48,367.5	11,724.0	45,967.5
Other	0.0	0.0	0.0
Atmospheric deposition	1,386.0		
Nutrients applied to all crops	51,351.3	11,724.0	45,967.5
Potential crop nutrient removal	36,828.0	6,428.4	30,469.8
Nutrient balance	14,523.3	5,295.6	15,497.7
Applied to removal ratio	1.39	1.82	1.51

B. POUNDS OF NITROGEN APPLIED BY NUTRIENT SOURCE



	Total N (lbs)	Total P (lbs)	Total K (lbs)
Irrigation sources	1,597.8	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	48,367.5	11,724.0	45,967.5
Other	0.0	0.0	0.0
Atmospheric deposition	1,386.0		
Nutrients applied to all crops	51,351.3	11,724.0	45,967.5
Potential crop nutrient removal	36,828.0	6,428.4	30,469.8
Nutrient balance	14,523.3	5,295.6	15,497.7
Applied to removal ratio	1.39	1.82	1.51

NUTRIENT BALANCE

A. WHOLE FARM BALANCE

	Total N (lbs)	Total P (lbs)	Total K (lbs)
Nutrients in storage from herd*			
Daily gross	1,820.8	298.8	805.9
Annual gross	664,598.0	109,063.5	294,162.3
Net to pond storage after ammonia losses (30% loss applied)	359,734.4	84,501.7	220,621.8
Net to drylot storage after ammonia losses (30% loss applied)	105,484.2	24,561.8	28,371.8
Net in storage (30% loss applied)	465,218.6	109,063.5	248,993.6
Irrigation sources	1,597.8	0.0	0.0
Atmospheric deposition	1,386.0		
Imports	0.0	0.0	0.0
Exports	417,263.0	99,961.2	253,096.4
Potential crop nutrient removal	36,828.0	6,428.4	30,469.8
Nutrient balance	14,111.4	2,673.8	-34,572.6
Nutrient balance ratio	1.38	1.42	-0.13

* Potassium excretion from milk cows and dry cows only.

SAMPLING AND ANALYSIS PLAN

A. MANURE SAMPLING AND ANALYSIS PLAN

			Minimum data collection requirements	
Frequency	Sampling Methods	Source	Field Analytes	Lab Analytes
Annually	Annual estimation for total manure dry weight applied to each field will be quantified using the following: Dry weight applied from a source to a crop per application event = weight applied * (1 - (percent moisture / 100)) Dry weight applied to crop per application event = sum of dry weights applied from each source Dry weight applied to a crop = sum of dry weights applied during each application Dry weight applied to a field = sum of dry weights applied to each crop Annual estimation for total manure dry weight exported will be quantified using the following: Dry weight exported from a source per event = weight exported * (1 - (percent moisture / 100)) Dry weight exported per event = sum of dry weights exported from each source Dry weight exported to any offsite destination = sum of dry weights exported per event	Corral solids Settling basin solids	Total dry weight (tons) manure applied annually to each land application area, and total dry weight (tons) manure exported offsite annually	None required

A. MANURE SAMPLING AND ANALYSIS PLAN (CONTINUED)

			Minimum data collection requirements	
Frequency	Sampling Methods	Source	Field Analytes	Lab Analytes
Twice per year	For each manure source, a composite sample per the "Approved Sampling Procedures for Nutrient and Groundwater Monitoring at Existing Milk Cow Dairies" will be collected.	Corral solids Settling basin solids	None required	Total nitrogen, total phosphorus, total potassium, and percent moisture
Once every two years (biennially)	For each manure source, a composite sample per the "Approved Sampling Procedures for Nutrient and Groundwater Monitoring at Existing Milk Cow Dairies" will be collected.	Corral solids Settling basin solids	None required	General minerals, including: calcium, magnesium, sodium, sulfate, chloride Fixed solids (ash)
Each application to each land application area	For each applied manure source, a composite sample per the "Approved Sampling Procedures for Nutrient and Groundwater Monitoring at Existing Milk Cow Dairies" will be collected. For each applied manure source, a scaled weight by truckload will be recorded.	Corral solids Settling basin solids	Date applied and total weight (tons) applied	Percent moisture

A. MANURE SAMPLING AND ANALYSIS PLAN (CONTINUED)

			Minimum data collection requirements	
Frequency	Sampling Methods	Source	Field Analytes	Lab Analytes
Each application to each land application area	For each applied manure source, a composite sample per the "Approved Sampling Procedures for Nutrient and Groundwater Monitoring at Existing Milk Cow Dairies" will be collected. For each applied manure source, a scaled weight by truckload will be recorded.	Corral solids Settling basin solids	Date applied and total weight (tons) applied	Percent moisture

B. PROCESS WASTEWATER SAMPLING AND ANALYSIS PLAN

			Minimum data collection requirements	
Frequency	Sampling Methods	Source	Field Analytes	Lab Analytes
Anually	A composite or grab sample prior to blending with irrigation water per the "Approved Sampling Procedures for Nutrient and Groundwater Monitoring at Existing Milk Cow Dairies" will be collected.	LG1	None required	pH, total dissolved solids, electrical conductivity, nitrate-nitrogen, ammonion-nitrogen, total Kjeldahl nitrogen, total phosphorus, and total potassium
Once every two years (biennially)	For each pond, a composite or grab sample per the "Approved Sampling Procedures for Nutrient and Groundwater Monitoring at Existing Milk Cow Dairies" will be collected.	LG1	None required	General minerals, including: calcium, magnesium, sodium, bicarbonate, carbonate, sulfate, and chloride

B. PROCESS WASTEWATER SAMPLING AND ANALYSIS PLAN (CONTINUED)

			Minimum data collection requirements	
Frequency	Sampling Methods	Source	Field Analytes	Lab Analytes
Each application	For each pond, a composite or grab sample per the "Approved Sampling Procedures for Nutrient and Groundwater Monitoring at Existing Milk Cow Dairies" will be collected.	LG1	Date applied and volume (gallons or acre-inches) applied	None required
Quarterly during one application event	For field measurement: For each pond, a composite or grab sample per the "Approved Sampling Procedures for Nutrient and Groundwater Monitoring at Existing Milk Cow Dairies" will be collected. For laboratory analyses: For each pond, a composite or grab sample per the "Approved Sampling Procedures for Nutrient and Groundwater Monitoring at Existing Milk Cow Dairies" will be collected.	LG1	Date applied and electrical conductivity	Nitrate-nitrogen (only when pond is aerated), un-ionized ammonia-nitrogen, total Kjeldahl nitrogen, total phosphorus, total potassium, and total dissolved solids

C. SOIL SAMPLING AND ANALYSIS PLAN

			Minimum data collection requirements	
Frequency	Sampling Methods	Source	Field Analytes	Lab Analytes

C. SOIL SAMPLING AND ANALYSIS PLAN (CONTINUED)

			Minimum data collection requirements	
Frequency	Sampling Methods	Source	Field Analytes	Lab Analytes
Once every five years for each land application area (may be distributed over a 5-year period by sampling 20% of the land application areas annually)	For each field, a composite sample per the "Approved Sampling Procedures for Nutrient and Groundwater Monitoring at Existing Milk Cow Dairies" will be collected.	Field 1 - 24 acres Field 2 - 37 acres Field 3 - 38 acres	None required	Soluble phosphorus
Spring pre-plant for each crop	For each field, a composite sample per the "Approved Sampling Procedures for Nutrient and Groundwater Monitoring at Existing Milk Cow Dairies" will be collected.	Field 1 - 24 acres Field 2 - 37 acres Field 3 - 38 acres	None required	0 to 1 foot: Nitrate-nitrogen and organic matter 1 to 2 foot: Nitrate-nitrogen

D. PLANT TISSUE SAMPLING AND ANALYSIS PLAN

			Minimum data collection requirements	
Frequency	Sampling Methods	Source	Field Analytes	Lab Analytes
Each crop harvest from each land application area	For each field and crop, a composite sample per the "Approved Sampling Procedures for Nutrient and Groundwater Monitoring at Existing Milk Cow Dairies" will be collected. For each field and crop, a scaled weight by truckload will be recorded.	Field 1 - Forage/Sudan Field 2 - Forage/Corn Field 3 - Forage/Corn	Date harvested and total weight (tons) of harvested material removed from each land application area	Percent wet weight of harvested plant removed Laboratory analyses for total nitrogen, total phosphorus, total potassium (expressed on a dry weight basis), fixed solids (ash), and percent moisture

E. IRRIGATION WATER SAMPLING AND ANALYSIS PLAN

			Minimum data collection requirements	
Frequency	Sampling Methods	Source	Field Analytes	Lab Analytes
Each fresh water irrigation event for each land application area	TID Canal - flow rate multiplied by runtime	TID Canal	Date applied and volume (gallons or acre-inches) applied	None required

E. IRRIGATION WATER SAMPLING AND ANALYSIS PLAN (CONTINUED)

			Minimum data collection requirements	
Frequency	Sampling Methods	Source	Field Analytes	Lab Analytes
One irrigation event during each irrigation season during actual irrigation events – for each irrigation water source (well and canal)	For each irrigation source, a grab sample per the "Approved Sampling Procedures for Nutrient and Groundwater Monitoring at Existing Milk Cow Dairies" will be collected. In lieu of sampling the irrigation water, the Discharger may provide equivalent data from the local irrigation district.	TID Canal	None required	Electrical conductivity, total dissolved solids, and total nitrogen

F. GROUNDWATER MONITORING SAMPLING AND ANALYSIS PLAN

			Minimum data collection requirements	
Frequency	Sampling Methods	Source	Field Analytes	Lab Analytes
Every five years (may be distributed over a 5-year period by sampling 20% of the wells annually)	For each domestic and agricultural supply well, a grab sample per the "Approved Sampling Procedures for Nutrient and Groundwater Monitoring at Existing Milk Cow Dairies" will be collected.	All Domestic Wells	None required	General minerals, including: calcium, magnesium, sodium, bicarbonate, carbonate, sulfate, chloride Total dissolved solids
Annually	For each domestic and agricultural supply well, a grab sample per the "Approved Sampling Procedures for Nutrient and Groundwater Monitoring at Existing Milk Cow Dairies" will be collected.	All Domestic Wells	Electrical conductivity and ammonion-nitrogen	Nitrate-nitrogen. If field measurement indicates the presence of ammonium-nitrogen, the Discharger shall collect a sample for laboratory analysis of ammonium-nitrogen.

NUTRIENT MANAGEMENT PLAN REVIEW

A. NUTRIENT MANAGEMENT PLAN REVIEW

Person who created the NMP:	Ramos, Joe	*See above for contact information.*
Date the NMP was drafted:	02/14/2017	
Person who approved the final NMP:	Ramos, Joe	*See above for contact information.*
Date of NMP implementation:	02/14/2017	

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).

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

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.

Technical Service Provider
TITLE/QUALIFICATIONS OF CERTIFIED NUTRIENT MANAGEMENT SPECIALIST

SIGNATURE OF TRAINED PROFESSIONAL — 8/31/20 DATE

Joe Ramos
PRINT OR TYPE NAME

2857 Geer RD. STE A; Turlock, CA 95382
MAILING ADDRESS

(209) 250-2471
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	
SIGNATURE OF OWNER OF FACILITY	SIGNATURE OF OPERATOR OF FACILITY
Isabel Machado	JOHN MACHADO
PRINT OR TYPE NAME	PRINT OR TYPE NAME
09-01-20	9/1/20
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.

Technical Service Provider
TITLE/QUALIFICATIONS OF CERTIFIED NUTRIENT MANAGEMENT SPECIALIST

Joe Ramos
SIGNATURE OF TRAINED PROFESSIONAL

8/31/20
DATE

Joe Ramos
PRINT OR TYPE NAME

2857 Geer RD, STE A; Turlock, CA 95382
MAILING ADDRESS

(209) 250-2471
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
SIGNATURE OF OWNER OF FACILITY

Isabel Machado
PRINT OR TYPE NAME

09-01-20
DATE

John Machado
SIGNATURE OF OPERATOR OF FACILITY

John Machado
PRINT OR TYPE NAME

9/1/20
DATE

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

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.

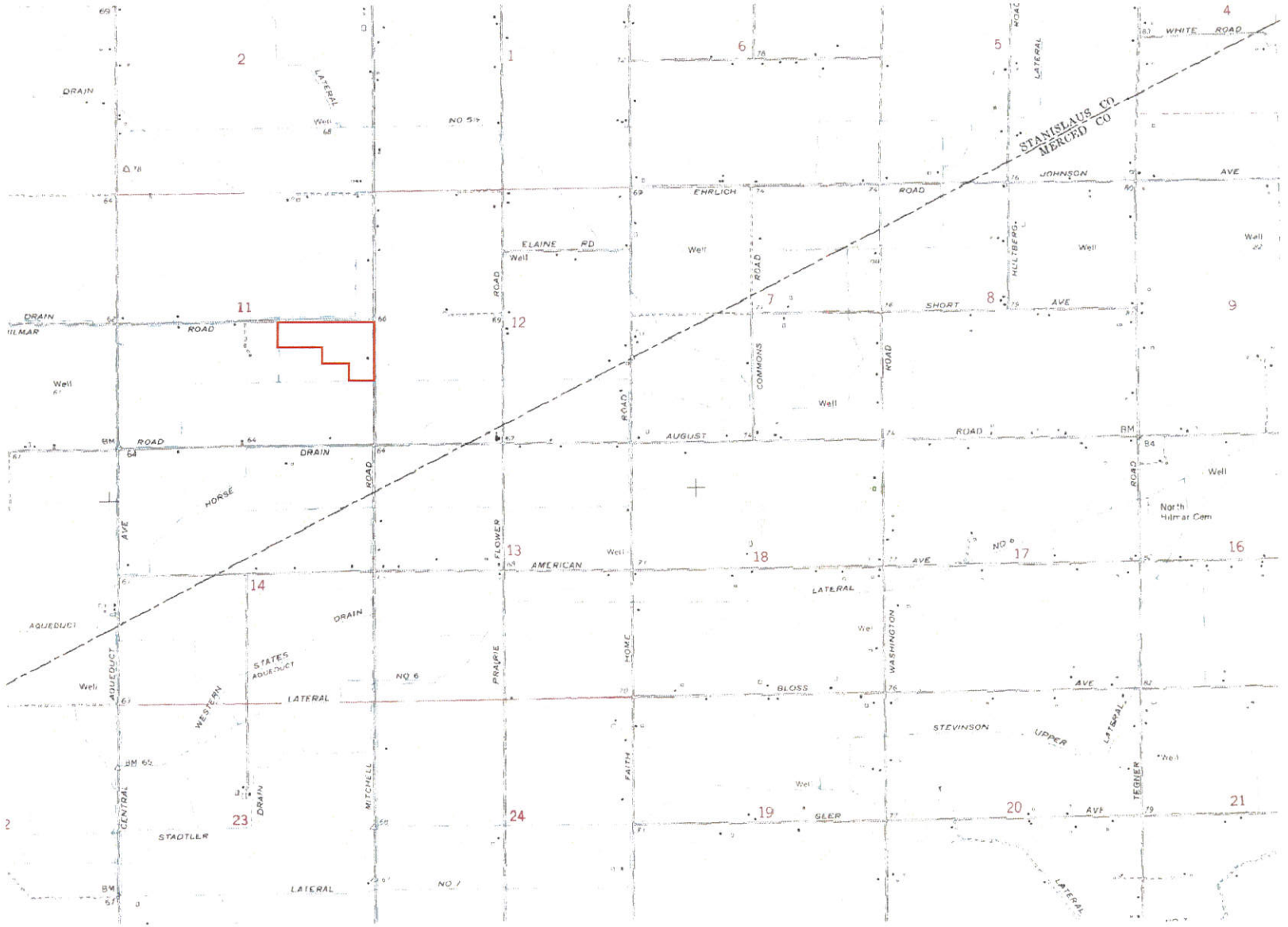
Has Item III (Nutrient Budget) of the Nutrient Management Plan been certified by a Certified Nutrient Management Specialist as required in the General Order?

☐ 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	JOHN MACHADO
PRINT OR TYPE NAME	PRINT OR TYPE NAME
09-01-20	9/1/20
DATE	DATE



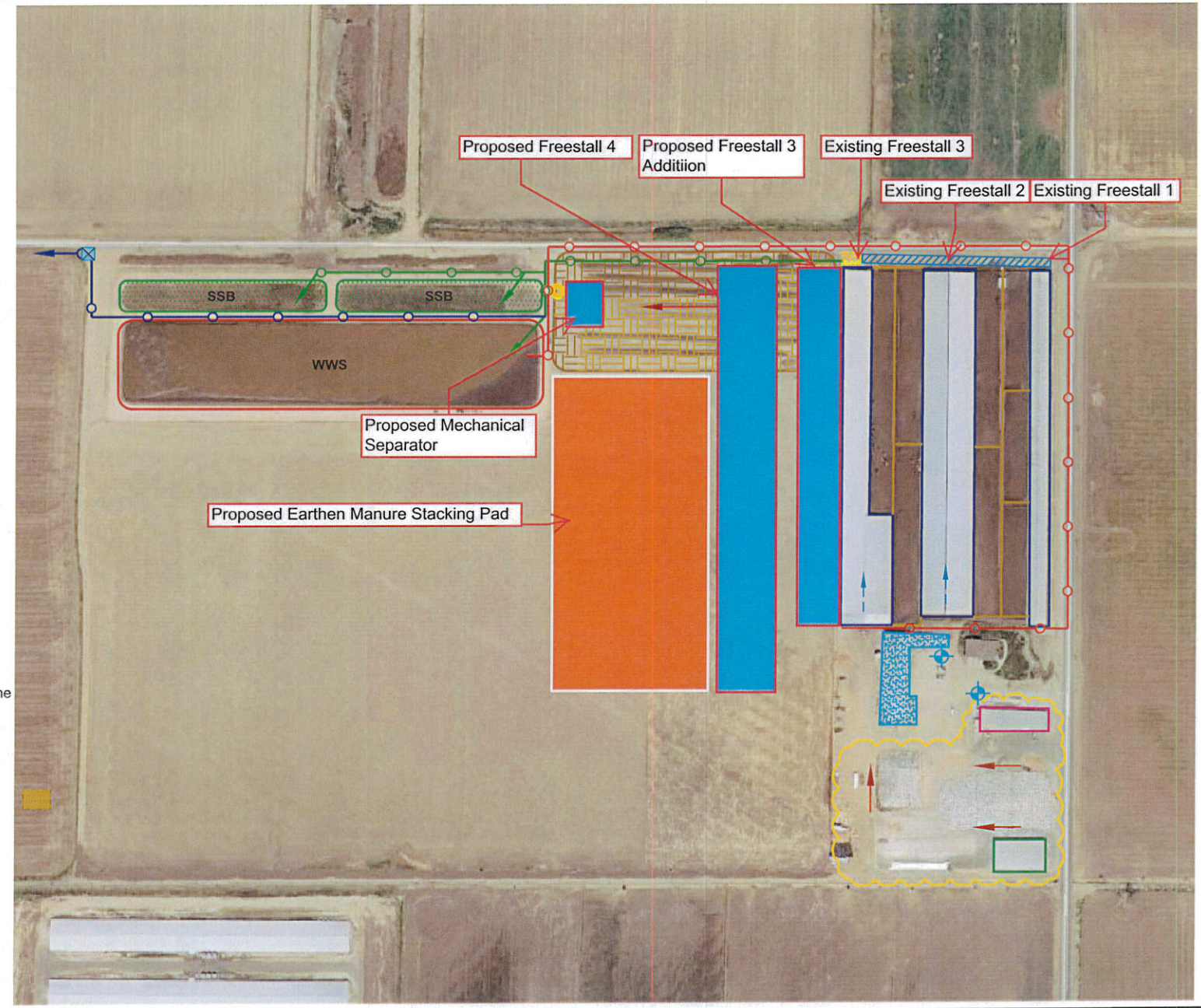
LEGEND

Facility Boundary

Ag Services, Inc.	SCALE: 0 4,000 8,000 APPROXIMATE SCALE IN FEET	MACHADO DAIRY STANISLAUS COUNTY, CA	**FIGURE 1** TOPOGRAPHIC MAP	
PROJECT NO. FRA-00	DATE: 9/2/20	DRAWN BY: SB	APP. BY: JR	Machado-land application

LEGEND

- Animal Housing/Shade
- Wastewater Storage
- Hay Barn
- Commodity Barn
- Milk Barn
- Sand Trap
- Corral
- Solids Settling Basin
- Manure Storage
- Pump
- Drain
- Domestic Well
- Feed Storage Area
- Flush Return Pipeline
- Flush Delivery Pipeline
- Clean Water Diversion Pipeline
- Drainage Flow
- Flush Flow Direction
- Flush Return Lane



Ag Services, Inc.

SCALE:

0 300 600

APPROXIMATE SCALE IN FEET

MACHADO DAIRY
STANISLAUS COUNTY, CA

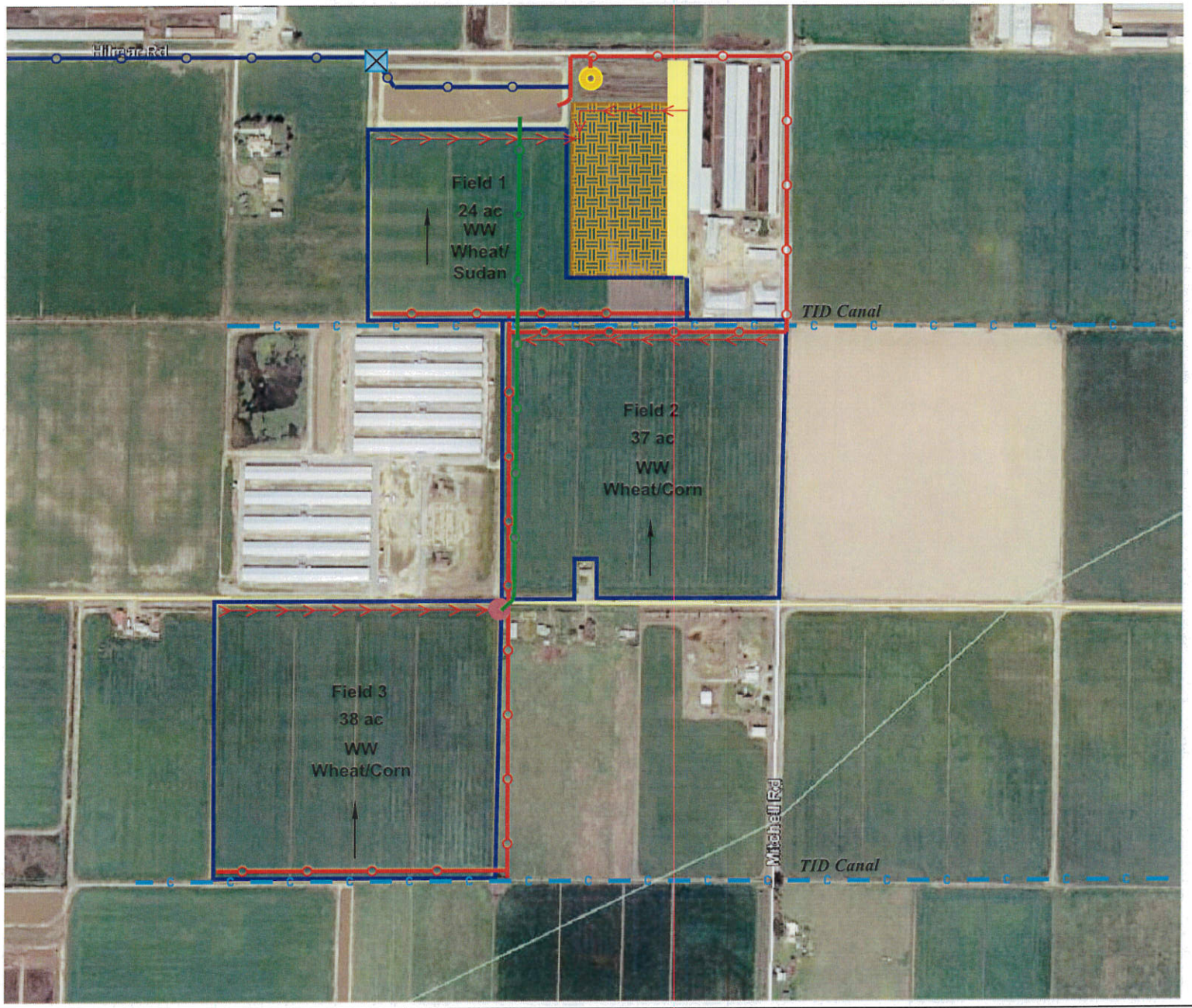
FIGURE 2
DAIRY FACILITY

PROJECT NO.	DATE:	DRAWN BY:	APP. BY:
FRA-00	3/13/18	SB	JR

Machado-land application

LEGEND

- Fields
- Manure Stacking Pad
- Tailwater Return Pipeline
- Wastewater Pipeline
- Clean Water Delivery Pipeline
- Irrigation Flow
- Drainage Flow
- TID Canal
- Drain
- Pump
- WW — Wastewater



Ag Services, Inc.

SCALE:
0 700 1500
APPROXIMATE SCALE IN FEET

MACHADO DAIRY
STANISLAUS COUNTY, CA

FIGURE 3
LAND APPLICATION AREA

PROJECT NO.	DATE:	DRAWN BY:	APP. BY:
FRA-00	9/2/20	SB	JR

Machado-land application