Stanislaus County
Striving to be the Best

DEPARTMENT OF PLANNING & COMMUNITY DEVELOPMENT

1010 10TH Street, Suite 3400, Modesto, CA 95354
Phone: 209.525-6330 Fax: 209.525.5911

Referral
Early Consultation

Date: **August 5, 2014**

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

From: **Rachel Wyse, Associate Planner, Planning and Community Development**

Subject: **USE PERMIT APPLICATION NO. PLN2013-0108 - VAL MARTINS DAIRY**

Respond By: **August 25, 2014**

****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 **August 25, 2014.**

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

Applicant: **Danny Martins, Val Martins Dairy**

Project Location: **3655 Gates Road, on the west side of Gates Road, between Bacon and Beckwith Roads, in the Modesto area.**

APN: **012-021-016**

Williamson Act Contract: **76-2250**

General Plan: **Agriculture**

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

Project Description: **Request to expand an existing dairy facility to permit 4,160 milk cows, 620 dry cows, 2,700 (7-24 month) heifers, and 500 (4-6 month) calves. The existing dairy, per Regional Water Quality Control Board (RWQCB) permit, is permitted to have 2,440 milk cows, 325 dry cows, 1,280 heifers (7-24 months), and 710 calves (4-6 months). (See Application page 2 - *CUP Application Supplemental Document* for a complete breakdown of permitted animals under RWQCB and San Joaquin Valley Air Pollution Control District permits.) The project will include approximately 378,900 square feet of new construction including a new freestall barn and freestall barn addition, a loafing barn, a special needs barn, a hay barn, and a shop. An additional 154,640 square feet of pen area and 352,000 square feet of hay/commodity yard area will be added to the 112.66 acre dairy facility. The lagoon will not be expanded.**

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

I:\Planning\Staff Reports\UP\2013\UP PLN2013-0108 - Val Martin Dairy\Early Consultation Referral\Early Consultation UP PLN2013-0108 - Val Martins Dairy.wpd

USE PERMIT APPLICATION NO. PLN2013-0108 - VAL MARTINS DAIRY
Attachment A

Distribution List

X	CA DEPT OF CONSERVATION Land Resources (cert.)		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
X	CA DEPT OF WATER RESOURCES	X	STAN CO CEO
X	CA OPR STATE CLEARINGHOUSE		STAN CO CSA
X	CA RWQCB CENTRAL VALLEY REGION	X	STAN CO DER
X	CA STATE LANDS COMMISSION	X	STAN CO ERC
	CEMETERY DIST:	X	STAN CO FARM BUREAU
X	CENTRAL VALLEY FLOOD PROTECTION	X	STAN CO HAZARDOUS MATERIALS
	CITY OF:		STAN CO PARKS & RECREATION
	COMMUNITY SERVICES / SANITARY DIST	X	STAN CO PUBLIC WORKS
X	COOPERATIVE EXTENSION		STAN CO RISK MANAGEMENT
	COUNTY OF:	X	STAN CO SHERIFF
X	FIRE PROTECTION DIST: SALIDA	X	STAN CO SUPERVISOR DIST 3: WITHROW
	HOSPITAL DIST:	X	STAN COUNTY COUNSEL
X	IRRIGATION DIST: MODESTO		StanCOG
X	MOSQUITO DIST: EASTSIDE	X	STANISLAUS FIRE PREVENTION BUREAU
X	MOUNTAIN VALLEY EMERGENCY MEDICAL SERVICES	X	STANISLAUS LAFCO
	MUNICIPAL ADVISORY COUNCIL:		SURROUNDING LAND OWNERS (on file w/the Clerk to the Board of Supervisors)
X	PACIFIC GAS & ELECTRIC	X	TELEPHONE COMPANY: AT&T
	POSTMASTER:		TRIBAL CONTACTS (CA Government Code §65352.3)
	RAILROAD:		TUOLUMNE RIVER TRUST
X	SAN JOAQUIN VALLEY APCD	X	US ARMY CORPS OF ENGINEERS
X	SCHOOL DIST 1: SALIDA	X	US FISH & WILDLIFE
X	SCHOOL DIST 2: MODESTO	X	US MILITARY (SB 1462) (6 agencies)
	STAN ALLIANCE	X	USDA NRCS
X	STAN CO AG COMMISSIONER		WATER DIST:

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. PLN2013-0108 - VAL MARTINS DAIRY**

Based on this agencies 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).

_____

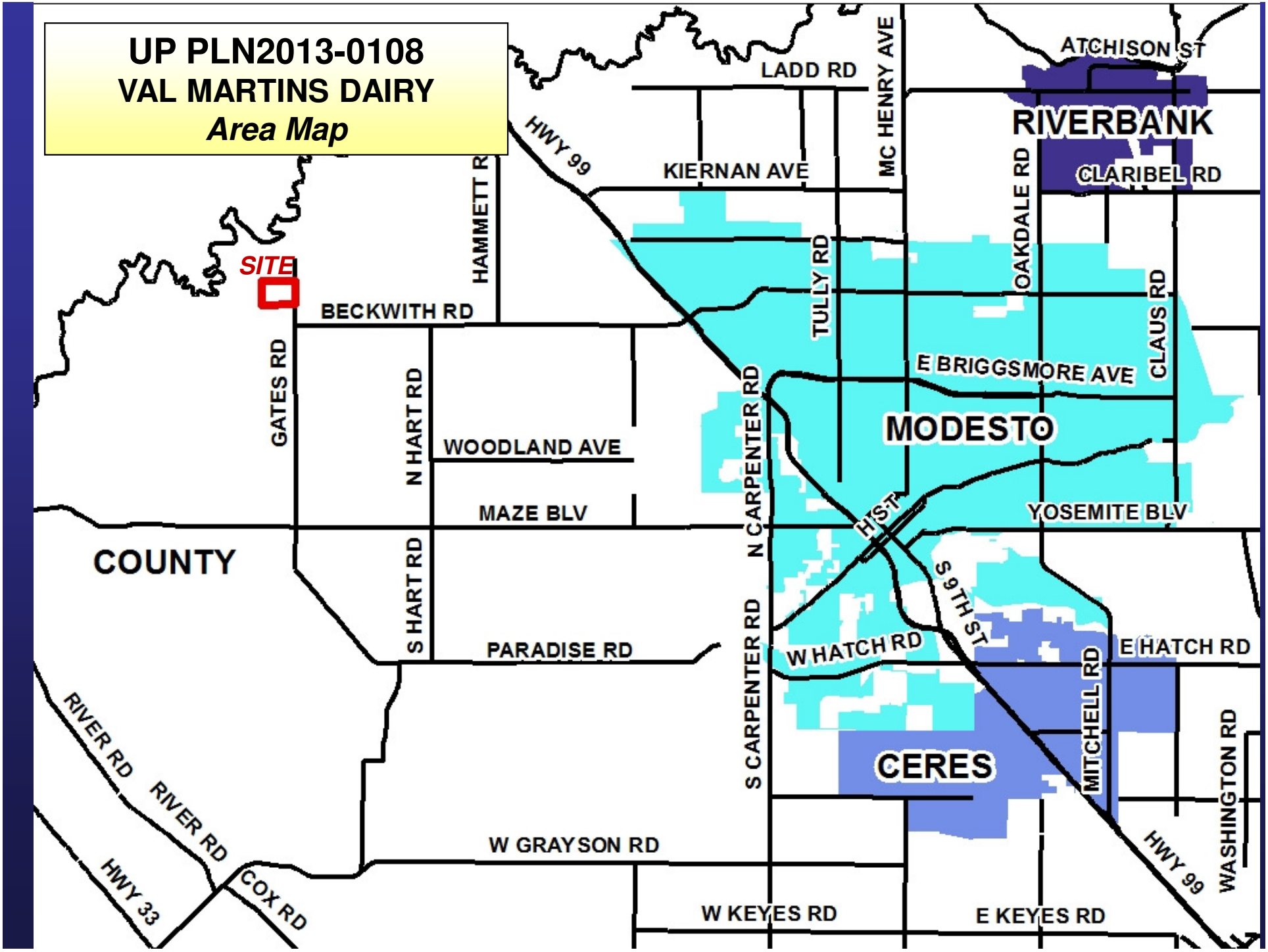
_____

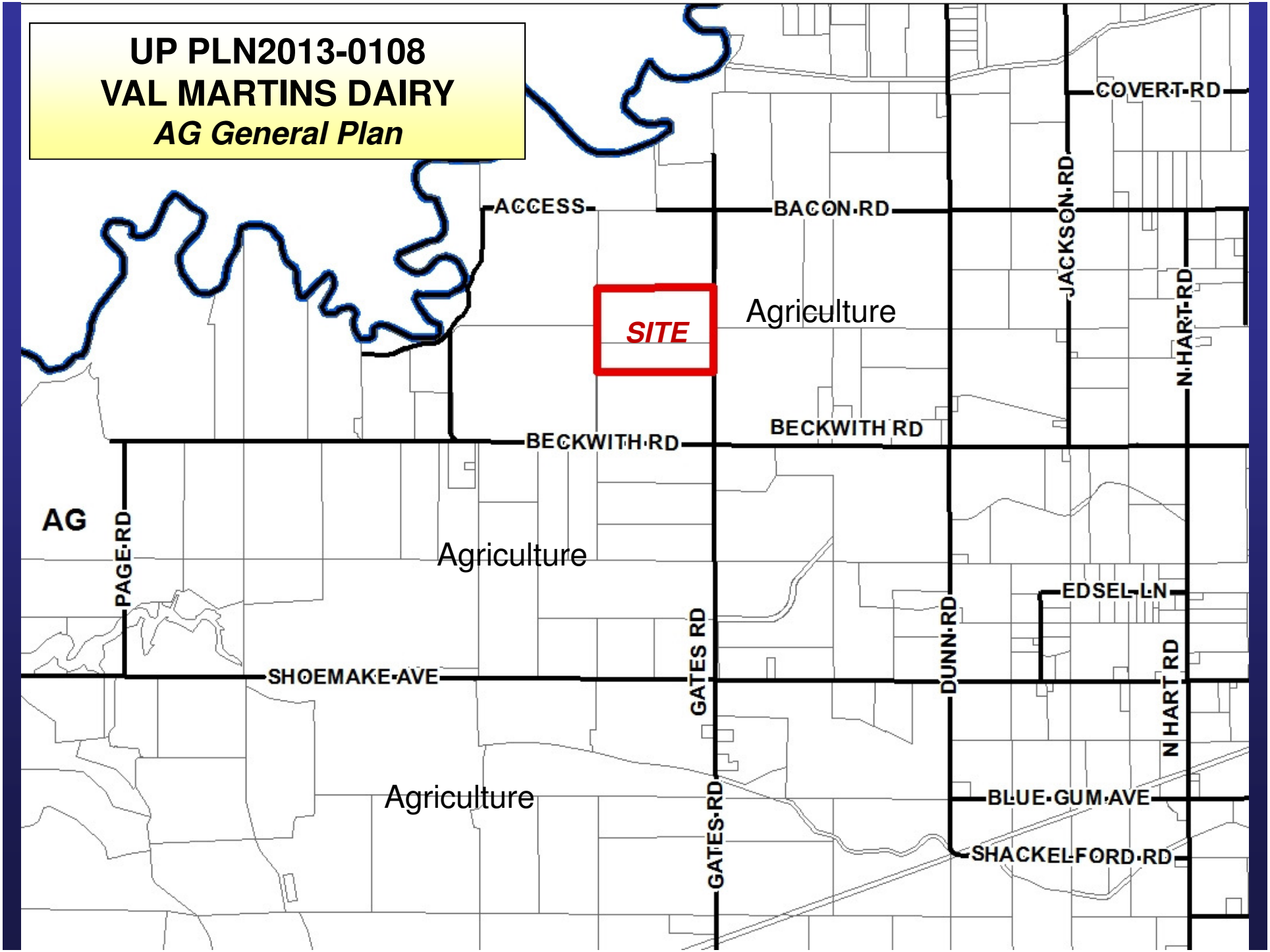
Response prepared by:

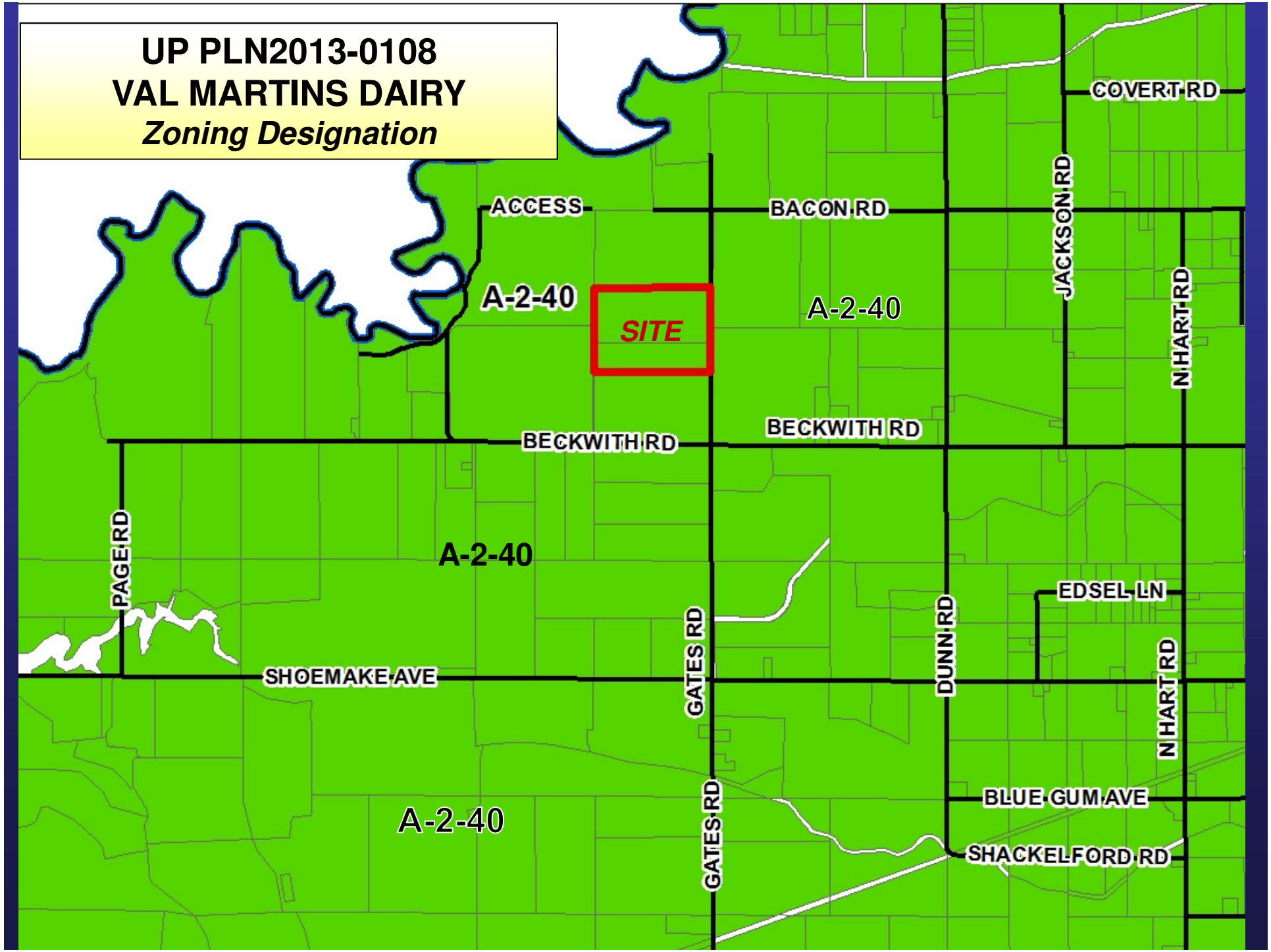
_____

Name Title Date

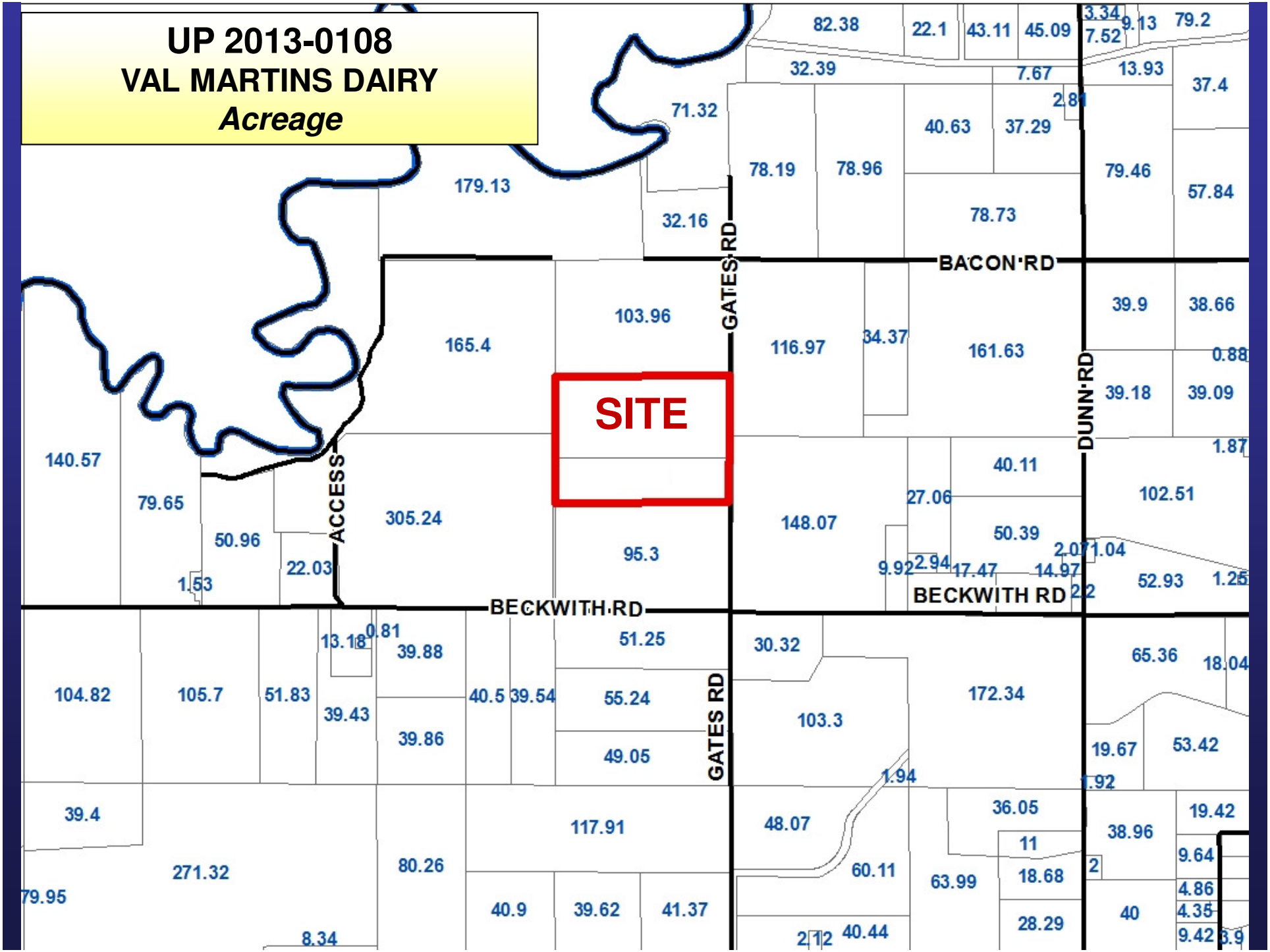
UP PLN2013-0108
VAL MARTINS DAIRY
Area Map

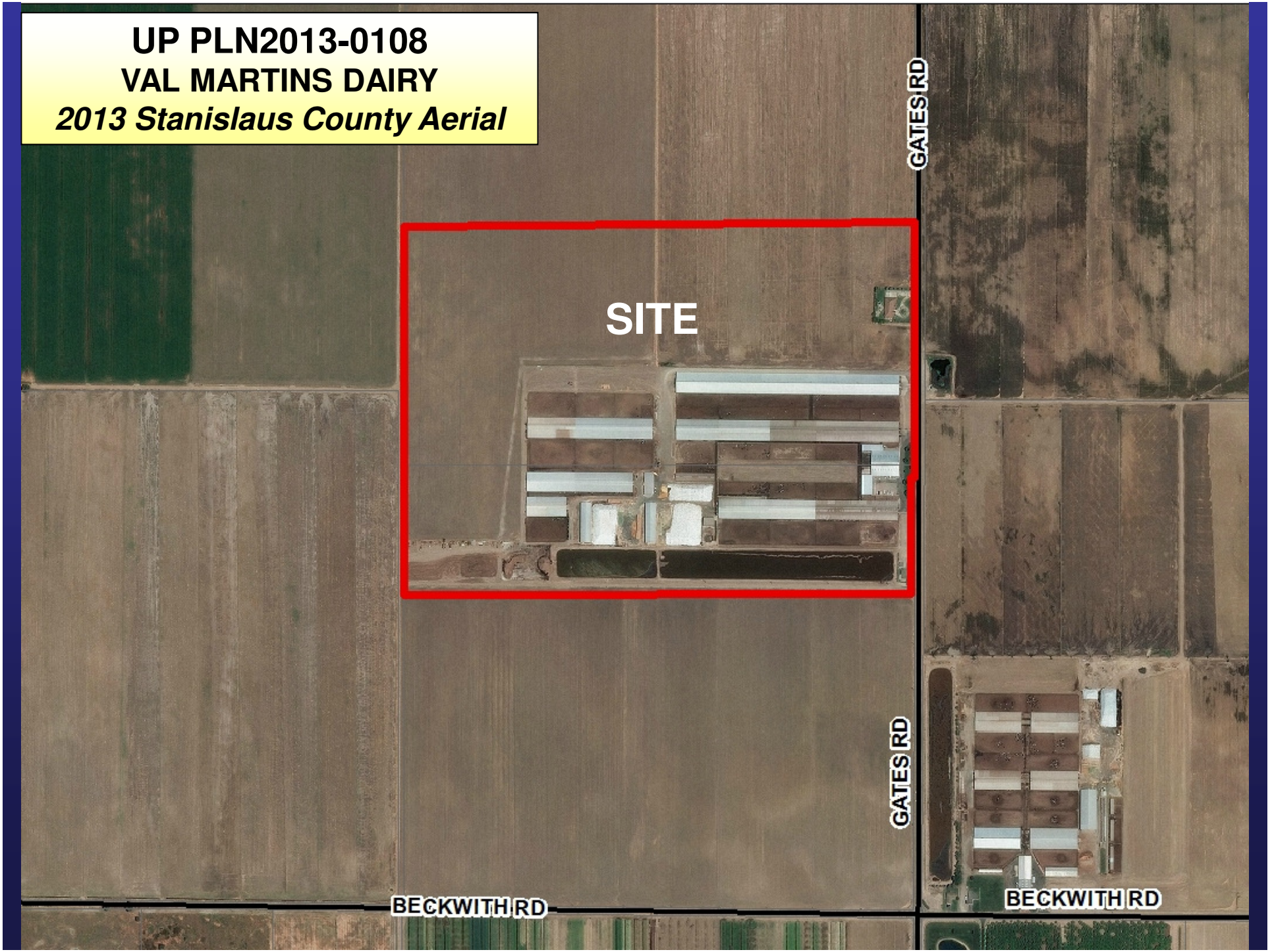


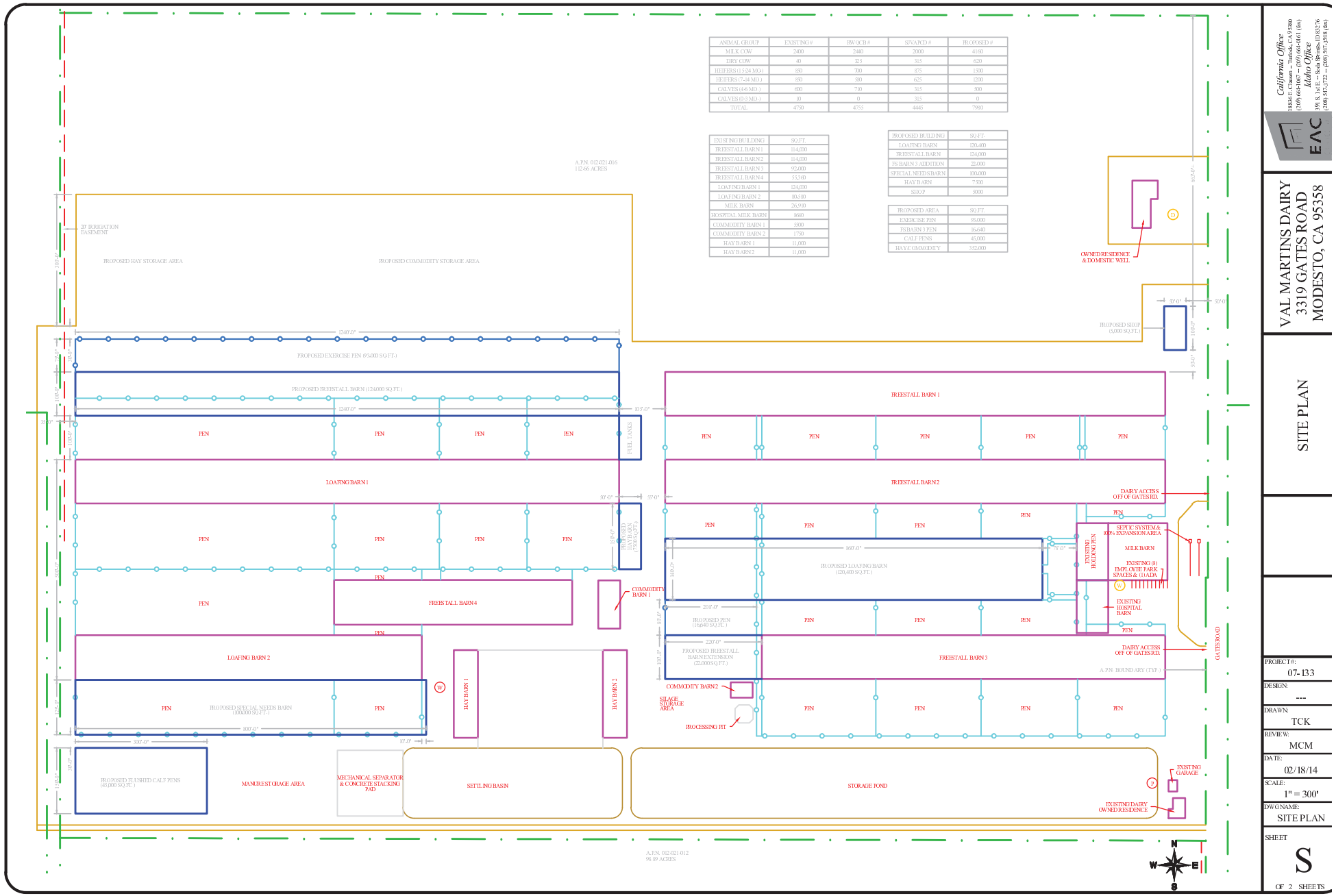

UP PLN2013-0108
VAL MARTINS DAIRY
AG General Plan
ACCESS
BACON RD
COVERT RD
JACKSON RD
N HART RD
SITE
Agriculture
BECKWITH RD
BECKWITH RD
AG
PAGE RD
Agriculture
EDSEL LN
GATES RD
DUNN RD
SHOEMAKE AVE
N HART RD
Agriculture
BLUE GUM AVE
GATES RD
SHACKELFORD RD


UP PLN2013-0108
VAL MARTINS DAIRY
Zoning Designation
ACCESS
BACON RD
COVERT RD
JACKSON RD
N HART RD
A-2-40
SITE
A-2-40
BECKWITH RD
BECKWITH RD
PAGE RD
A-2-40
EDSEL LN
GATES RD
DUNN RD
SHOEMAKE AVE
N HART RD
BLUE GUM AVE
GATES RD
A-2-40
SHACKELFORD RD

UP 2013-0108
VAL MARTINS DAIRY
Acreage




UP PLN2013-0108
VAL MARTINS DAIRY
2013 Stanislaus County Aerial
SITE
GATES RD
GATES RD
BECKWITH RD
BECKWITH RD



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1858 E. Clausen – Turlock, CA 95380
(209) 668-1067 – (209) 668-0161 (fax)
Idaho Office
391 S. 1st E. – Soda Springs, ID 83276
(208) 547-3722 – (208) 547-3818 (fax)
EAC

VAL MARTINS DAIRY
3319 GATES ROAD
MODESTO, CA 95358

SITE PLAN

PROJECT #: 07-133
DESIGN: ---
DRAWN: TCK
REVIEW: MCM
DATE: 02/18/14
SCALE: 1" = 300'
DWG NAME: SITE PLAN
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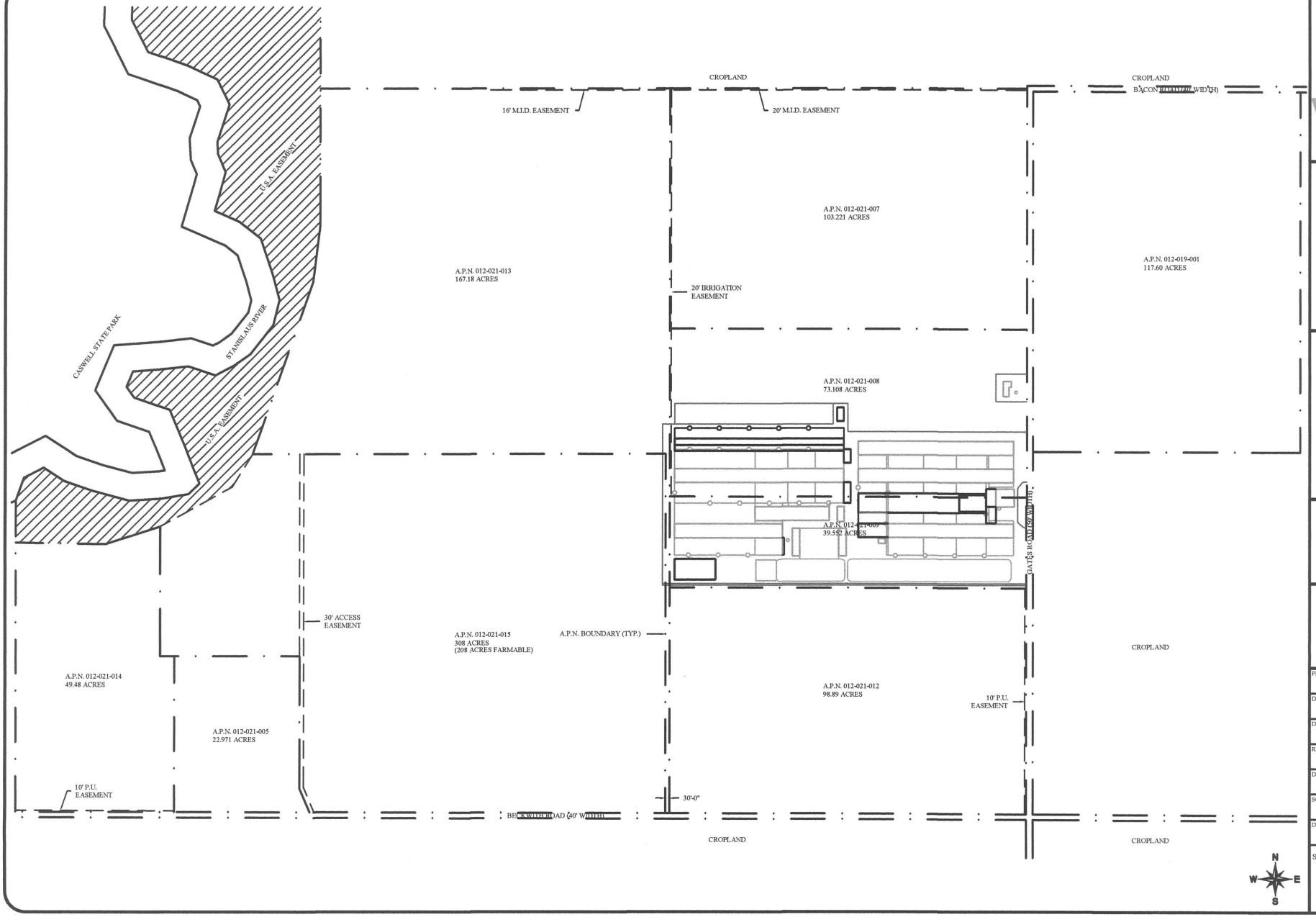
OF 2 SHEETS



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(208) 547-3722 – (208) 547-3548 (fax)
EAC ENGINEERING

VAL MARTINS DAIRY
3319 GATES ROAD
MODESTO, CA 95358

APN MAP

PROJECT #:	07-133
DESIGN:	---
DRAWN:	TCK
REVIEW:	MCM
DATE:	02/08/12
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DWG NAME:	SITE PLAN
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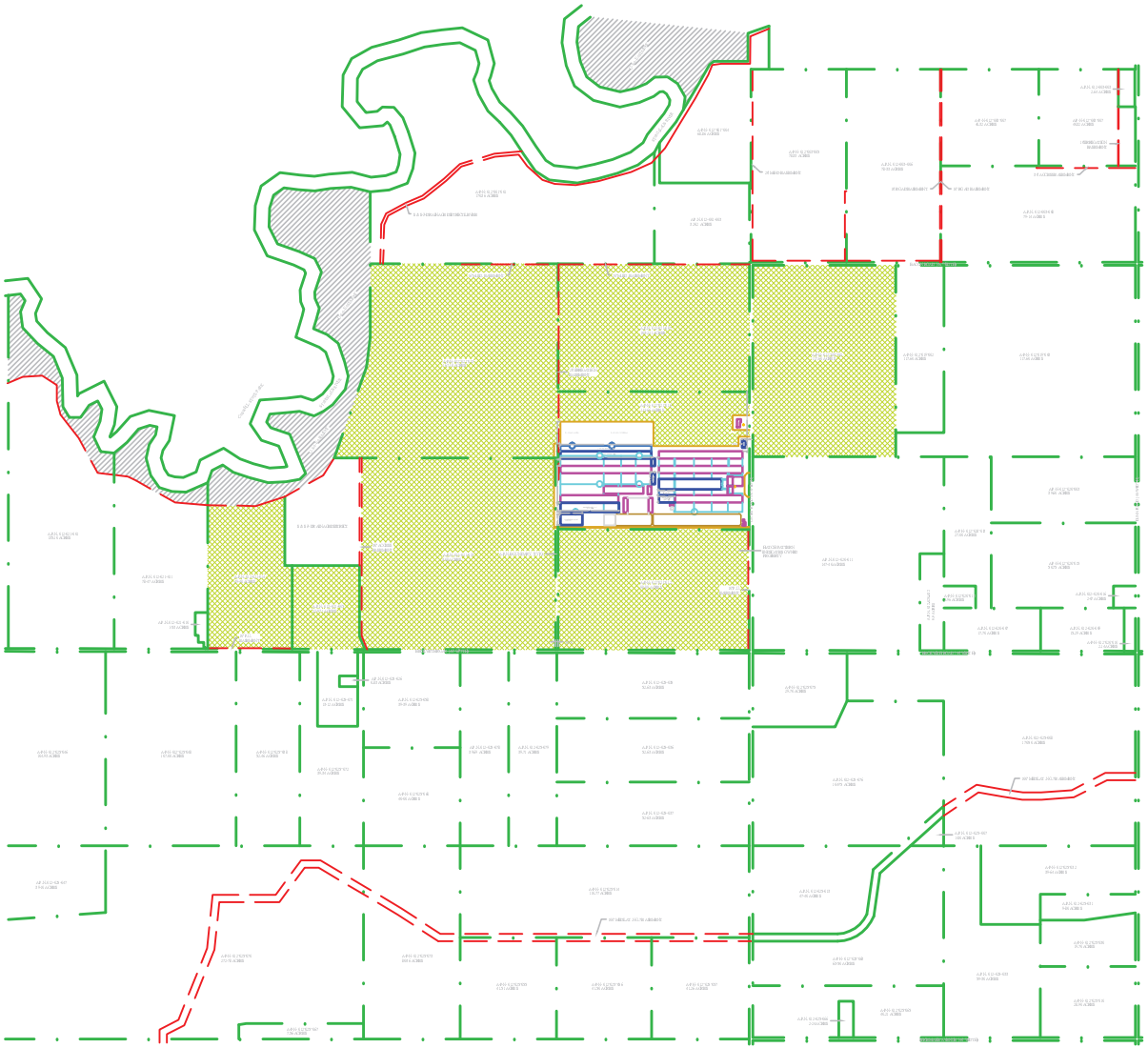
OF 2 SHEETS



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Idaho Office
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(208) 547-3722 -- (208) 547-3588 (fax)

EAC

VAL MARTINS DAIRY
3319 GATES ROAD
MODESTO, CA 95358

APN MAP

PROJECT #: 07-133
DESIGN: --
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REVIEW: MCM
DATE: 01/09/14
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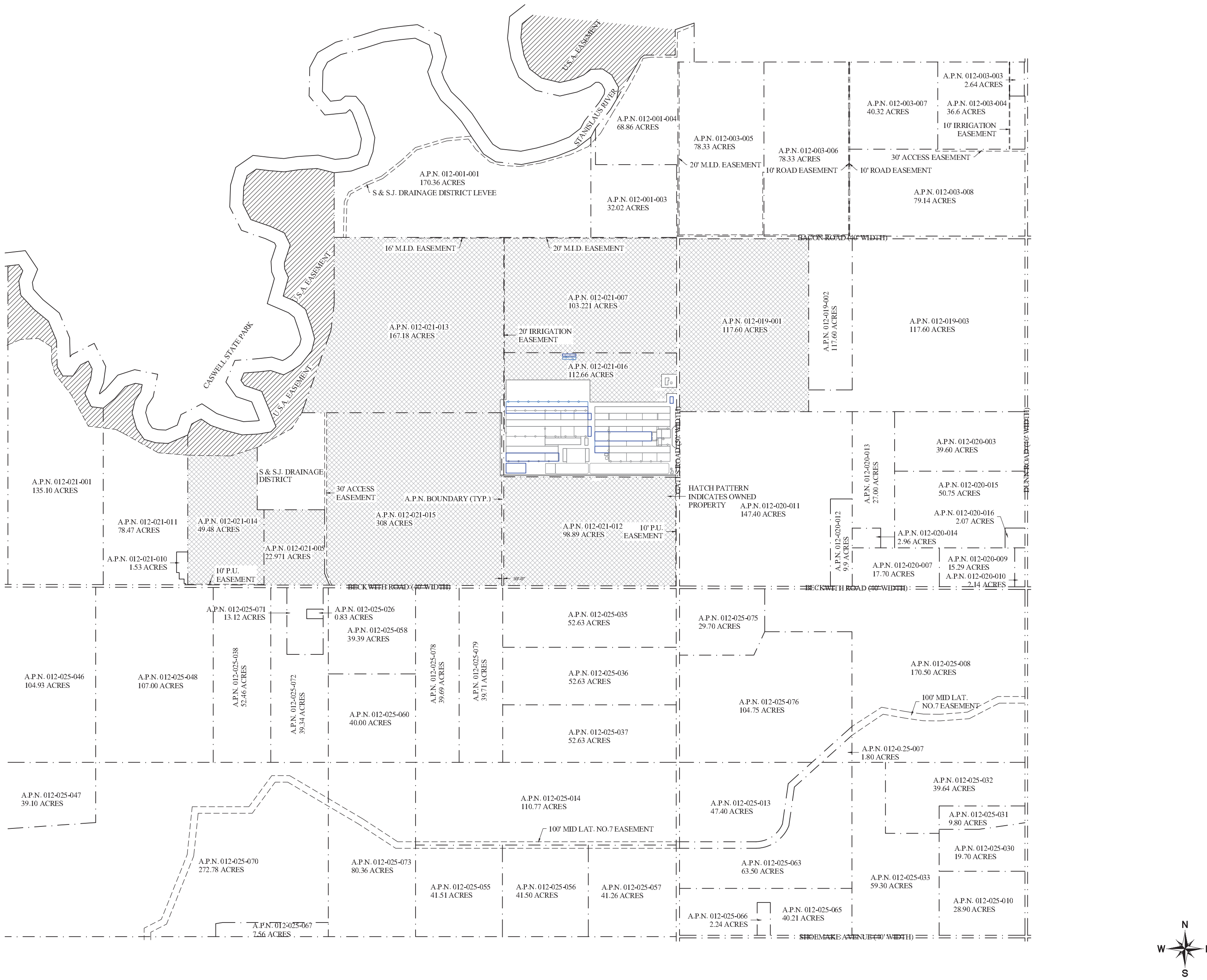
SHEET A
OF 2 SHEETS



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EAC ENGINEERING, INC.

VAL MARTINS DAIRY
3319 GATES ROAD
MODESTO, CA 95358

APN MAP

PROJECT #: 07-133
DESIGN: ---
DRAWN: TCK
REVIEW: MCM
DATE: 07/25/14
SCALE: 1" = 700'-0"
DWG NAME: SITE PLAN
SHEET A
OF 2 SHEETS

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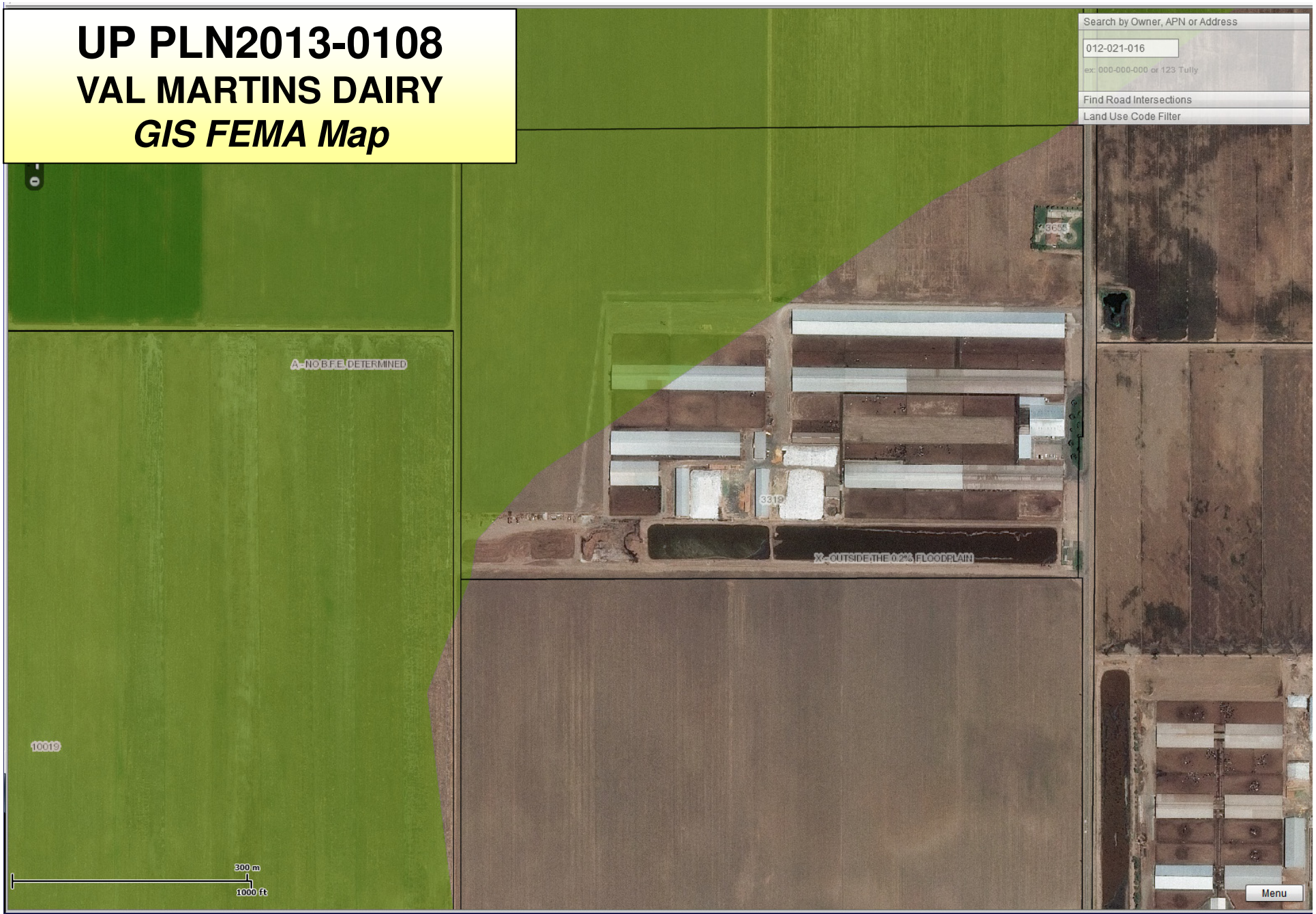
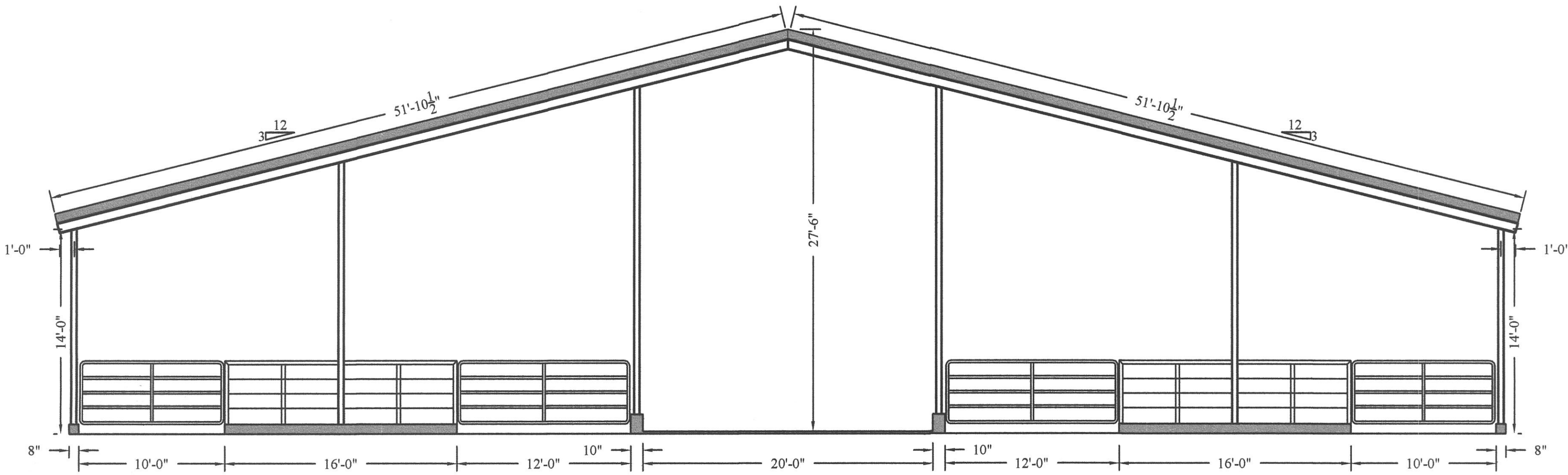
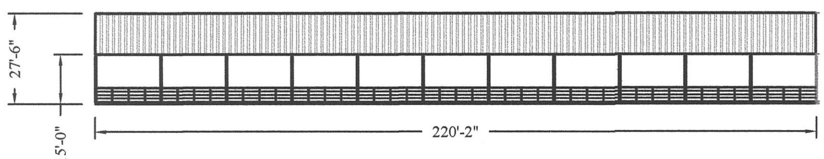
UP PLN2013-0108
VAL MARTINS DAIRY
GIS FEMA Map





FREESTALL BARN ADDITION - ENDWALL VIEW
SCALE: 1/8" = 1'-0"



FREESTALL BARN ADDITION - SIDEWALL ELEVATION
SCALE: 1" = 40'-0"

California Office
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EAC ENGINEERING

VAL MARTINS DAIRY
3319 GATES ROAD
MODESTO, CA 95358

FREESTALL ADDITION ELEVATIONS

PROJECT #:	07-133
DESIGN:	TCK
DRAWN:	TCK
REVIEW:	MCM
DATE:	02/08/12
SCALE:	AS NOTED
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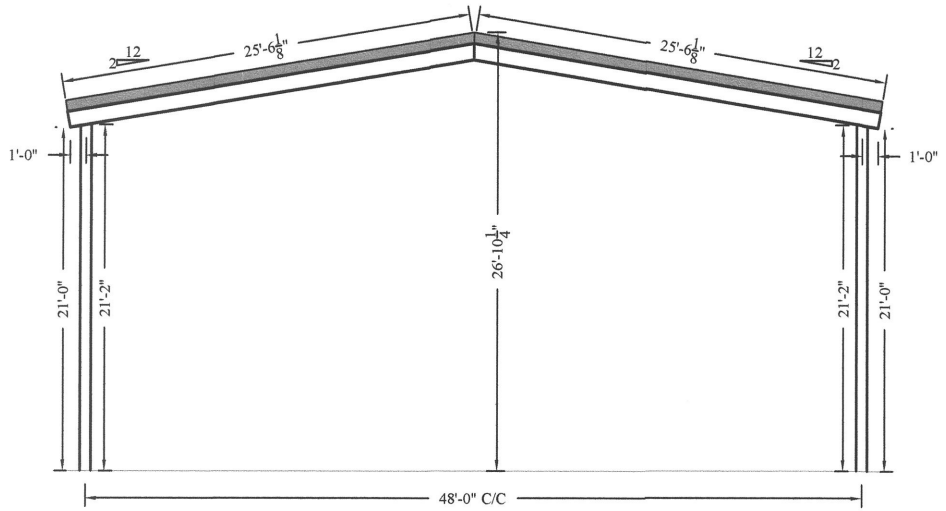
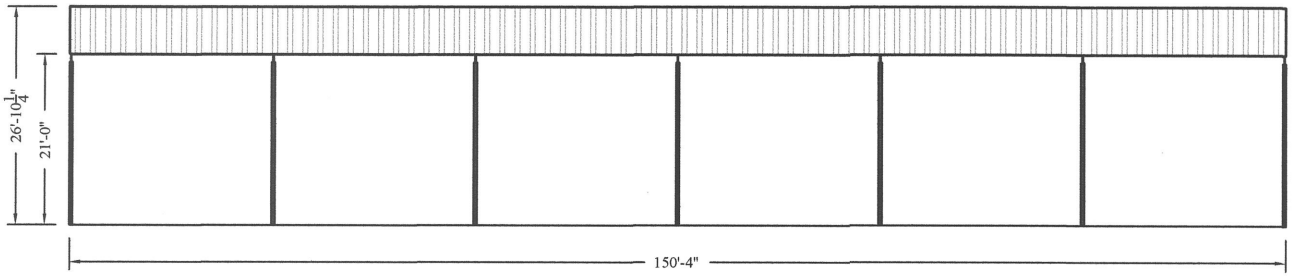
OF 6 SHEETS



HAY BARN - ENDWALL ELEVATION
SCALE: 1/8" = 1'-0"



HOSPITAL BARN - SIDEWALL ELEVATION
SCALE: 1/16" = 1'-0"

California Office
18836 E. Clausen – Tuttock, CA 95380
(209) 664-1067 – (209) 664-0161 (fax)
Idaho Office
391 S. 1st E. – Soda Springs, ID 83276
(208) 547-3722 – (208) 547-3948 (fax)
EAC ENGINEERING

VAL MARTINS DAIRY
3319 GATES ROAD
MODESTO, CA 95358

HAY BARN
ELEVATIONS

PROJECT #: 07-133
DESIGN: TCK
DRAWN: TCK
REVIEW: MCM
DATE: 02/08/12
SCALE: AS NOTED
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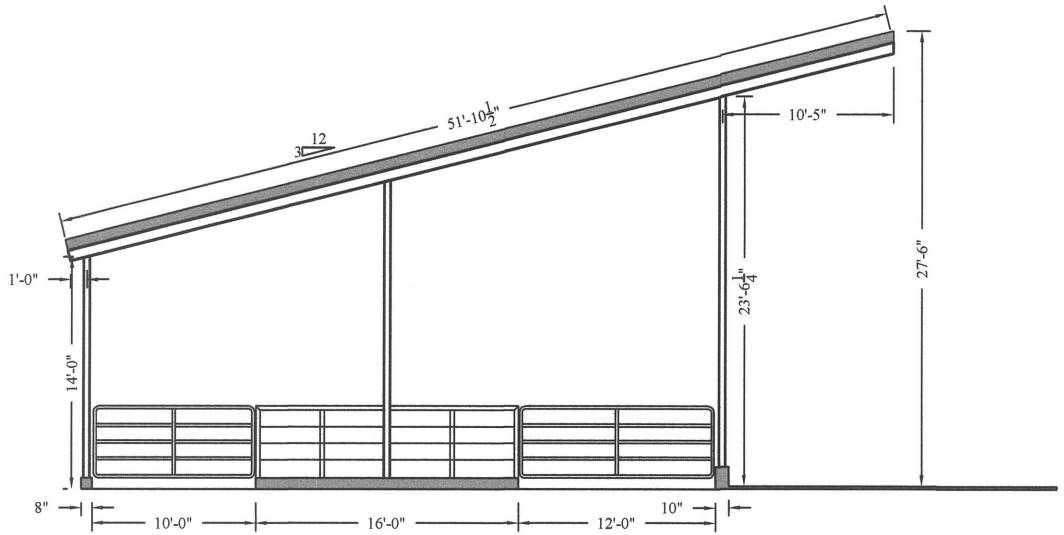
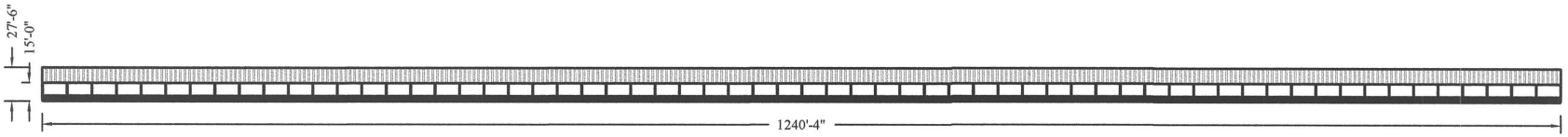


LOAFING BARN - ENDWALL VIEW
SCALE: 1/8" = 1'-0"



LOAFING BARN - SIDEWALL ELEVATION
SCALE: 1" = 100'-0"

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1808-E Clarus – Turlock, CA 95380
(209) 664-1067 – (209) 664-4161 (fax)
Idaho Office
391 S. 1st E. – Soda Springs, ID 83276
(208) 547-3725 – (208) 547-3558 (fax)
EAC ENGINEERING

VAL MARTINS DAIRY
3319 GATES ROAD
MODESTO, CA 95358

LOAFING BARN
ELEVATIONS

PROJECT #:	07-133
DESIGN:	TCK
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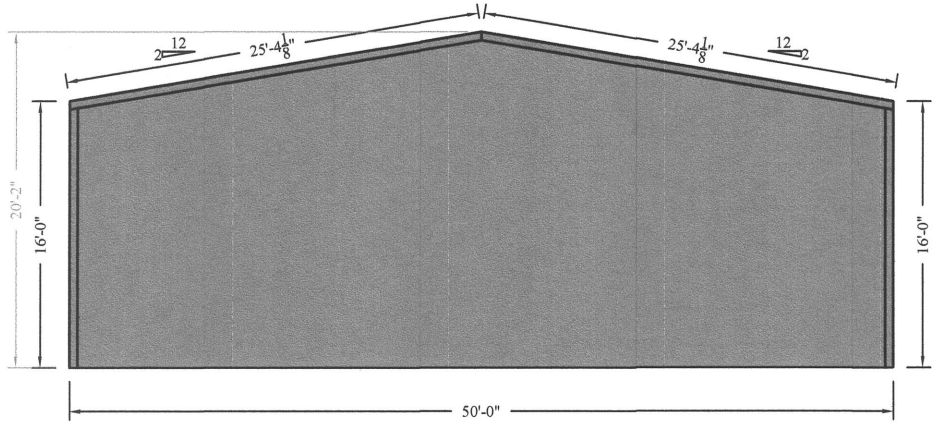
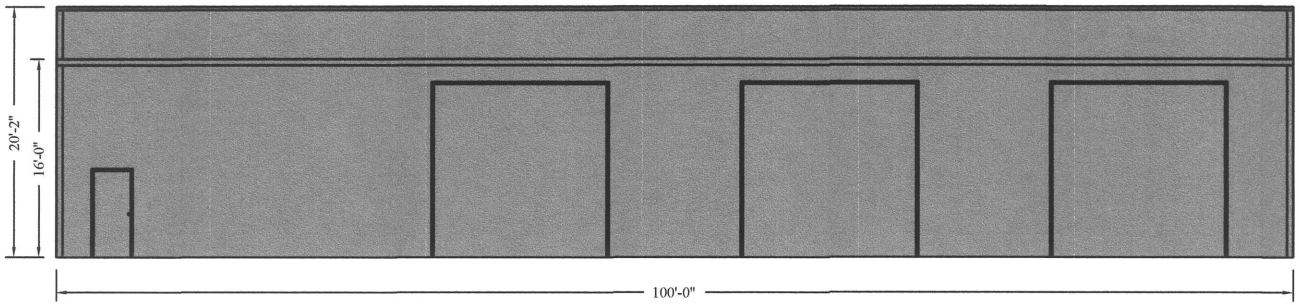


SHOP - ENDWALL ELEVATION
SCALE: 1/8" = 1'-0"



SHOP - SIDEWALL ELEVATION
SCALE: 3/32" = 1'-0"

California Office
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Idaho Office
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(208) 547-3722 – (208) 547-3568 (fax)
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VAL MARTINS DAIRY
3319 GATES ROAD
MODESTO, CA 95358

SHOP
ELEVATIONS

PROJECT #	07-133
DESIGN:	TCK
DRAWN:	TCK
REVIEW:	MCM
DATE:	02/08/12
SCALE:	AS NOTED
DWG NAME:	BLDG ELEV
SHEET	SE
	OF 6 SHEETS

APPLICATION QUESTIONNAIRE

Please Check all applicable boxes **APPLICATION FOR:** *Staff is available to assist you with determining which applications are necessary*	**PLANNING STAFF USE ONLY:**
☐ General Plan Amendment ☐ Subdivision Map ☐ Rezone ☐ Parcel Map ☒ Use Permit ☐ Exception ☐ Variance ☐ Williamson Act Cancellation ☐ Historic Site Permit ☐ Other _____	Application No(s): _____ _____ _____ Date: _____ S _____ T_____ R _____ GP Designation: _____ Zoning: _____ Fee: _____ Receipt No. _____ Received By: _____ Notes: _____

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 proposing to construct several structures and increase the capacity of the dairy herd. The specific details of the expansion are included in the supplemental document attached.

CUP Application Supplemental Document

Animal Group	Existing #	RWQCB #	SJVAPCD #	Proposed #
Milk Cow	2400	2440	2000	4160
Dry Cow	40	325	315	620
Heifers (15-24 mo.)	850	700	875	1500
Heifers (7-14 mo.)	850	580	625	1200
Calves (4-6 mo.)	600	710	315	500
Calves (0-3 mo.)	10	0	315	0
Total	**4750**	**4755**	**4445**	**7980**

Existing Structures

Existing Building	Sq.ft.
Freestall barn 1	114,000
Freestall barn 2	114,000
Freestall barn 3	92,000
Freestall barn 4	55,360
Loafing barn 1	124,000
Loafing barn 2	80,580
Milk barn	26,910
Hospital milk barn	8640
Commodity barn 1	5500
Commodity barn 2	1750
Hay barn 1	11,000
Hay barn 2	11,000

Proposed Structures

Proposed Building	Sq.ft.
Loafing barn	120,400
Freestall barn	124,000
FS barn 3 addition	22,000
Special needs barn	100,000
Hay barn	7500
Shop	5000

Proposed Areas

Proposed Area	Sq.ft.
Exercise pen	93,000
FS barn 3 pen	16,640
Calf pens	45,000
Hay/commodity yard	352,000

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** 012 **Page** 021 **Parcel** 016

Additional parcel numbers: _____

Project Site Address or Physical Location: 3319 Gates Road

Modesto, CA 95358

Property Area: Acres: 112.66 or Square feet: _____

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

Dairy facility and farmed cropland (row crops)

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: _____
(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: Agricultural cropland

West: Agricultural cropland

North: Agricultural cropland

South: Agricultural cropland and Dairy operation

WILLIAMSON ACT CONTRACT:

Yes ☒ **No** ☐

Is the property currently under a Williamson Act Contract?
Contract Number: 76-2250

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.) The area of the proposed loafing barn and special needs barn will be graded - estimate of 40,000 total cu.yds to be moved

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: See Supp Sq. Ft.

Proposed Building Coverage: See Supp Sq. Ft.

Landscaped Area: See Supp Sq. Ft.

Paved Surface Area: See Supp Sq. Ft.

BUILDING CHARACTERISTICS:

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

Number of floors for each building: All structures will have 1 floor (1 story)

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

Freestall barns - 28'-0", , Hay Barn - 26'-0", Shop - 20'-0", FS add - 28'-0"

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)

N/A

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

Parking area is existing and concrete

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: MID

Telephone: AT&T

Water**: Existing Private Well

Sewer*: Existing Private Septic System

Gas/Propane: Existing Propane Tank

Irrigation: MID (existing)

***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:)

The operation generates and will continue to generate cattle manure and urine. The operation also generates and will continue to generate process wastewater from cleaning of the milk barn.

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): See Supplemental

Type of use(s): All structures listed are for agricultural use - 2013 CBC use category U

Days and hours of operation: Monday through Sunday, 24 hours/day

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

Occupancy/capacity of building: All structures are U occupancies - max. of 6 people will be in any structure at any one time

Number of employees: (Maximum Shift): 6 (Minimum Shift): 4

Estimated number of daily customers/visitors on site at peak time: 2

Other occupants: None

Estimated number of truck deliveries/loadings per day: 2

Estimated hours of truck deliveries/loadings per day: 1

Estimated percentage of traffic to be generated by trucks: 25

Estimated number of railroad deliveries/loadings per day: 0

Square footage of:

Office area: 0 Warehouse area: 0

Sales area: 0 Storage area: 0

Loading area: 2600 Manufacturing area: 0

Other: (explain type of area)

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)

Gates Road and Beckwith Road

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) 120-day wastewater storage pond (as req'd by RWQCB)

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.

The areas to be graded are within the existing footprint of the operation and will drain to the existing wastewater storage pond. The graded area will also be compacted to reduce erosion.

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)

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: N-6988-2-1 **EXPIRATION DATE:** 12/31/201

EQUIPMENT DESCRIPTION:
COW HOUSING - 2,000 MILK COWS, 315 DRY COWS, 875 LARGE HEIFERS (15-24 MONTHS), 625 MEDIUM HEIFERS (7-14 MONTHS), 315 SMALL HEIFERS (4-6 MONTHS), 315 CALVES (UNDER 3 MONTHS) INCLUDING 3 FREESTALL BARNS, OPEN CORRALS, AND CALF HOUSING WITH FLUSH SYSTEM

PERMIT UNIT REQUIREMENTS

1. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 1070]
2. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [Distric Rule 1070]
3. If a licensed veterinarian, a certified nutritionist, the California Department of Food and Agriculture (CDFA), or the United States Department of Agriculture (USDA) determines that any VOC mitigation measure (with a Rule 4570 reference) is detrimental to animal health and needs to be suspended, the Permittee must notify the District in writing within forty-eight (48) hours of the determination including the duration and the specific health condition requiring th mitigation measure to be suspended. If the situation is expected to exist longer than a thirty-day (30) period, the owner/operator shall submit a new emission mitigation plan designating a mitigation measure to be implemented in lieu of the suspended mitigation measure. [District Rule 4570]
4. Permittee shall remove animal waste that is not dry from individual cow freestall beds at least once every fourteen (1 days. [District Rule 4570]
5. Permittee shall record the date that animal waste that is not dry is removed from individual cow freestall beds. [Distri Rule 4570]
6. Permittee shall groom (rake, harrow, scrape, or grade) bedding in freestalls at least once every fourteen (14) days. [District Rule 4570]
7. Permittee shall record the date that bedding in freestalls is raked, harrowed, scraped or graded at least once every fourteen (14) days. [District Rule 4570]
8. Permittee shall clean concreted areas such that the depth of animal waste does not exceed twelve (12) inches at any point or time, except for in-corral mounding. [District Rule 4570]
9. Permittee shall measure and document the depth of manure on the concrete lanes at least once every ninety (90) days. [District Rule 4570]
10. Permittee shall install all shade structures uphill of any slope in the corral. [District Rule 4570]
11. Permittee shall manage corrals such that the animal waste depth in the corral does not exceed twelve (12) inches at ar time or point, except for in-corral mounding. [District Rule 4570]
12. Permittee shall measure and document the depth of manure in the corrals/pens at least once every ninety (90) days. [District Rule 4570]

Permittee shall scrape or flush feed aprons in corrals at least once every seven (7) days. [District Rule 4570]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

Permit to Operate

FACILITY: N-6988 **EXPIRATION DATE:** 12/31/2014

LEGAL OWNER OR OPERATOR: VAL MARTIN DAIRY
MAILING ADDRESS: 3655 GATES RD
MODESTO, CA 95358

FACILITY LOCATION: 3655 GATES RD
MODESTO, CA 95358

FACILITY DESCRIPTION: DAIRY FARM

The Facility's Permit to Operate may include Facility-wide Requirements as well as requirements that apply to specific permit units.

This Permit to Operate remains valid through the permit expiration date listed above, subject to payment of annual permit fees and compliance with permit conditions and all applicable local, state, and federal regulations. This permit is valid only at the location specified above, and becomes void upon any transfer of ownership or location. Any modification of the equipment or operation, as defined in District Rule 2201, will require prior District approval. This permit shall be posted as prescribed in District Rule 2010.

Seyed Sadredin
Executive Director / APCO

David Warner
Director of Permit Services

may copy Danny has original

Mar 30 2010 11:32AM – MEDINAS

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: Martins Dairy

Physical address of dairy:

3319 Gates RD	Modesto	Stanislaus	95358
Number and Street	City	County	Zip Code

Street and nearest cross street (if no address):

TRS Data and Coordinates:

3S	7E	11	Mt. Diablo	37° 41' 14.71" N	121° 9' 35.08" W
Township (T_)	Range (R_)	Section (S_)	Baseline meridian	Latitude (N)	Longitude (W)

Date facility was originally placed in operation: 08/01/1991

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

County Assessor Parcel Number(s) for dairy facility:

0012-0019-0001-0000	0012-0021-0005-0000	0012-0021-0007-0000	0012-0021-0008-0000	0012-0021-0009-0000
0012-0021-0012-0000	0012-0021-0013-0000	0012-0021-0014-0000	0012-0021-0015-0000	

B. OPERATOR NAME: Martins, Danny Telephone no.: (209) 604-2308
Landline Cellular

10101 Beckwith RD	Modesto	CA	95358
Mailing Address Number and Street	City	State	Zip Code

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

C. LEGAL OWNER NAME: Martins, Val Telephone no.: (209) 545-3419
Landline Cellular

3655 Gates RD	Modesto	CA	95358
Mailing Address Number and Street	City	State	Zip Code

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

D. CONTACT NAME: Mitchell, Michael C Telephone no.: (209) 664-1067 (559) 381-0607
Landline Cellular

Title: Professional Engineer

18836 E 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

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:

4,780 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	4,160	4,175	8	1,400
Dry Cows	620	625	8	1,400
Bred Heifers (15-24 mo.)	1,500	1,520	4	900
Heifers (7-14 mo.)	1,200	1,220	4	750
Calves (4-6 mo.)	500	500	4	
Calves (0-3 mo.)	0	0	0	

Predominant milk cow breed: Holstein

Average milk production: 60 pounds per cow per day

Average number of milk cows per string sent to the milkbarn: 350 milk cows per string

Number of milkings per day: 2.0 milkings per day

Number of times milk tank is emptied/filled each day: 3.0 per day

Number of hours spent milking each day: 20.0 hours per day

B. MILKBARN EQUIPMENT AND FLOOR WASH

Bulk tank wash and sanitizing: 3.0 run cycles/wash

Bulk tank wash vat volume: 40 gallons/cycle

Bulk tank wash wastewater: 360.0 gallons/day

Pipeline wash and sanitizing: 3.0 run cycles/wash

Pipeline wash vat volume: 50 gallons/cycle

Pipeline wash wastewater: 300.0 gallons/day

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

Milkbarn / parlor floor wash volume: 6,000 gallons/day

Plate coolers type: Well Water Cooled (Water Reused/Recycled)

Plate coolers volume: 80,000 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: 6,660 gallons/day

C. OTHER WATER USES

Reused/recycled water is the source of herd drinking water: [X] Yes [ ] 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:	4,160 *of 4,160*	620 *of 620*	1,500 *of 1,500*	1,200 *of 1,200*	500 *of 500*	0 *of 0*
Gallons per head per day:	35	30	30	25	20	0

Total reusable water consumed by herd: 249,200 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: 0.1 minutes

Number of sprinkler pen runs/milking: 0 cycles/milking

Flow rate for each sprinkler head: 0.1 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

No miscellaneous equipment entered.

E. MILKBARN AND EQUIPMENT SUMMARY

Number of days in storage period: 120 days

Water available for reuse/recycle: 80,000 gallons/day

Recycled water reused: 255,200 gallons/day

Recycled water leaving system: 249,200 gallons/day

Reusable water balance: 0 gallons/day

Volume of milkbarn and equipment wastewater generated for storage period: 799,200 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:

Solids are removed from the flush water using an inclined screen separator and an earthen settling basin.

C. MANURE AND BEDDING SOLIDS SUMMARY

	cubic feet		gallons	
	day	storage period	day	storage period
Manure generated by the herd (pre-separation):	12,298.74	1,475,849	92,000.99	11,040,119
Manure generated by the herd sent to pond(s):	2,937.44	352,493	21,973.59	2,636,831
Manure generated by the herd sent to dry lot(s):	8,627.21	1,035,265	64,536.03	7,744,323
Manure solids (herd) removed by separation:	355.37	42,644	2,658.35	319,002
Liquid component in separated solids not send to pond(s):	378.72	45,446	2,833.02	339,962
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):	3,020.78	362,493	22,596.97	2,711,637
Residual manure solids and bedding sent to pond(s) w/factor:	160.12	19,215	1,197.80	143,737
	cubic feet per year		gallons per year	
Residual manure solids and bedding sent to pond(s) w/factor:	58,445		437,199	

RAINFALL AND RUNOFF

A. RAINFALL ESTIMATES

Rainfall station nearest the facility: Modesto

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): 7.91 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
Concrete	140,422	1	0.70	0.68	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): 140,422 sq. ft.

Total surface area: 140,422 sq. ft.

Runoff from normal storage period rainfall: 470,838 gallons/storage period

Runoff from normal storage period rainfall with 1.5 factor: 706,256 gallons/storage period

25 year/24 hour storm event runoff: 153,188 gallons/storage period

Total surface area runoff: 624,025 gallons/storage period

Total surface area runoff with 1.5 factor: 859,444 gallons/storage period

C. ROOF AREAS

Name	Surface Area (sq. ft.)	Quantity	Runoff Destination
Roofs	837,396	1	Wastewater pond

Surface area that does not run off into pond(s):	0	sq. ft.
Surface area that runs off into pond(s):	837,396	sq. ft.
Total surface area:	837,396	sq. ft.
Runoff from normal storage period rainfall:	4,129,124	gallons/storage period
Runoff from normal storage period rainfall with 1.5 factor:	6,193,685	gallons/storage period
25 year/24 hour storm event runoff:	1,305,033	gallons/storage period
Total surface area runoff:	5,434,156	gallons/storage period
Total surface area runoff with 1.5 factor:	7,498,718	gallons/storage period

D. EARTHEN AREAS

Name	Surface Area (sq. ft.)	Quantity	25yr/24 Storm Coefficient	Storage Period Coefficient	Runoff Destination
Earthen areas	180,000	1	0.50	0.48	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):	180,000	sq. ft.
Total surface area:	180,000	sq. ft.
Runoff from normal storage period rainfall:	426,031	gallons/storage period
Runoff from normal storage period rainfall with 1.5 factor:	639,046	gallons/storage period
25 year/24 hour storm event runoff:	140,260	gallons/storage period
Total surface area runoff:	566,290	gallons/storage period
Total surface area runoff with 1.5 factor:	779,306	gallons/storage period

E. TAILWATER MANAGEMENT

No fields with tailwater entered.

LIQUID STORAGE

A. POND OR BASIN DESCRIPTION: Settling Basin

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

Dimensions			
Earthen Length (EL):	504 ft.	Earthen Depth (ED):	13 ft.
Earthen Width (EW):	150 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):	498 ft.	Storage Volume Adjusted for Dead Storage Loss:	676,302 cu. ft.
Liquid Width (LW):	144 ft.		
Pond Surface Area:	75,600 sq. ft.	Pond Marker Elevation:	9.9 ft.
Storage Volume:	676,302 cu. ft.	Evaporation Volume:	379,801 gals/period
		Adjusted Surface Area:	70,639 sq. ft.

POND OR BASIN DESCRIPTION: Storage Pond

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

Dimensions			
Earthen Length (EL):	1,170 ft.	Earthen Depth (ED):	13 ft.
Earthen Width (EW):	150 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):	1,164 ft.	Storage Volume Adjusted for Dead Storage Loss:	1,610,367 cu. ft.
Liquid Width (LW):	144 ft.		
Pond Surface Area:	175,500 sq. ft.	Pond Marker Elevation:	9.9 ft.
Storage Volume:	1,610,367 cu. ft.	Evaporation Volume:	889,523 gals/period
		Adjusted Surface Area:	165,443 sq. ft.

Potential storage losses (due to dead storage): 0.0 cubic feet - or - 0.0 gallons

Liquid storage surface area: 239,328 sq. ft.

Rainfall onto retention pond(s): 1,238,151 gallons/storage period

Rainfall runoff into retention pond(s): 5,025,992 gallons/storage period

Normal rainfall onto retention pond(s) with 1.5 factor: 1,857,227 gallons/storage period

Normal rainfall runoff into retention pond(s) with 1.5 factor: 7,538,987 gallons/storage period

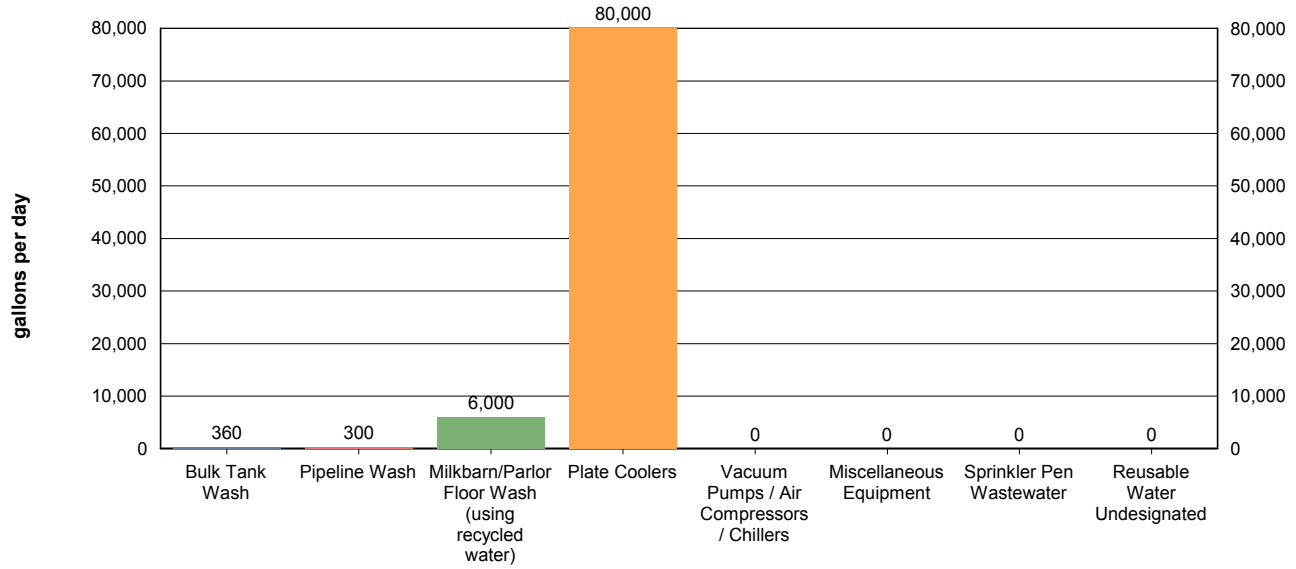
Storage period evaporation (default): 11.50 inches/storage period

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

Storage period evaporation volume:	1,269,324	gallons/storage period
Manure and bedding sent to pond(s):	2,711,637	gallons/storage period
Milkbarn water sent to pond(s):	799,200	gallons/storage period
Fresh flush water for storage period:	0	gallons/storage period

CHARTS

A. MILKBARN WASTEWATER SENT TO POND(S)

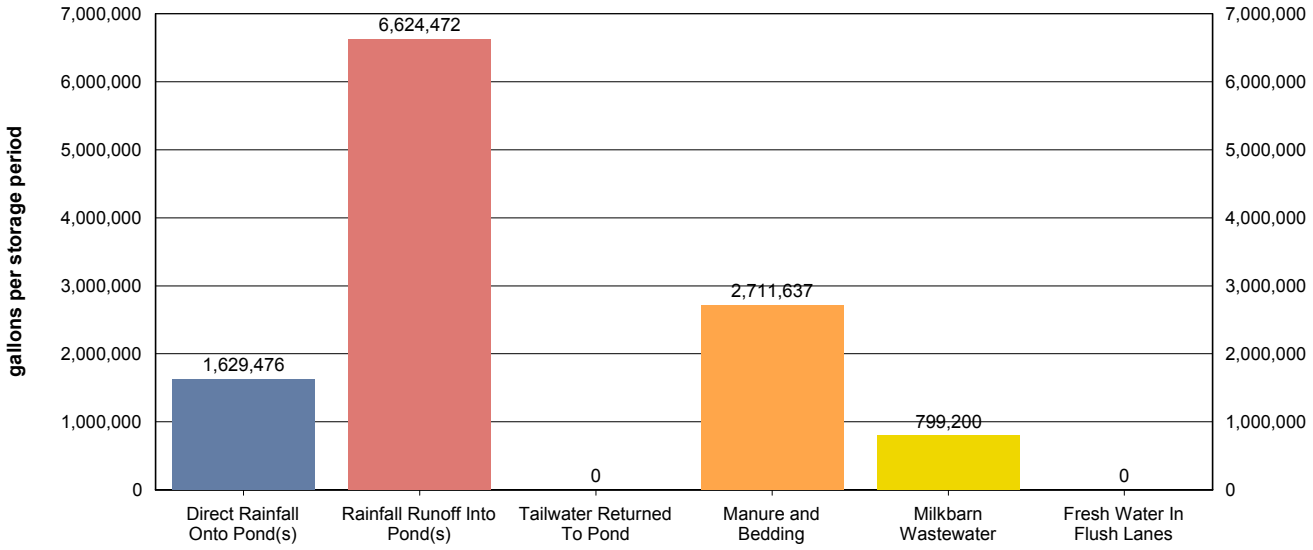


Values shown in chart are approximate values per day.

Total milkbarn wastewater generated daily: 6,660 gallons/day

Total milkbarn wastewater generated per period: 799,200 gallons/storage period

B. PROCESS WASTEWATER (NORMAL PRECIPITATION)

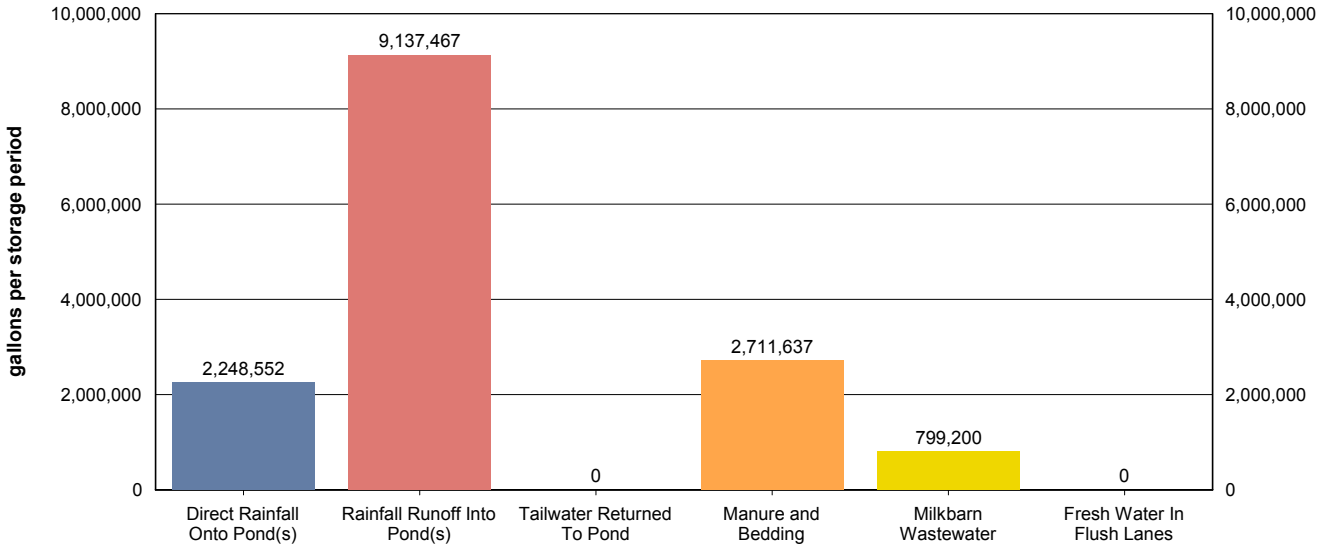


Values shown in chart are approximate values for storage period.

Storage period:	120	days
Total process wastewater generated daily:	98,040	gallons/day
Total process wastewater generated per period:	11,764,784	gallons/storage period
Total process wastewater removed due to evaporation:	1,269,324	gallons/storage period
Total storage capacity required:	10,495,460	gallons
	1,403,039	cu. ft.
Existing storage capacity (adjusted for dead storage loss):	17,105,472	gallons
	2,286,669	cu. ft.

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

C. PROCESS WASTEWATER (NORMAL PRECIPITATION WITH 1.5 FACTOR)

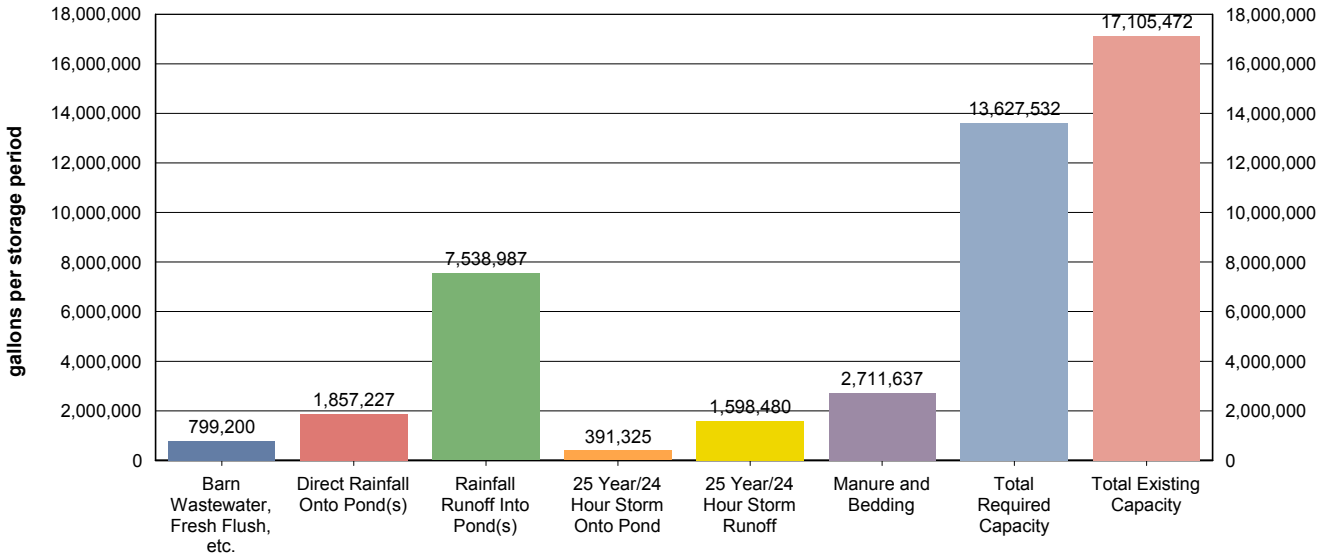


Values shown in chart are approximate values for storage period.

Storage period:	120	days
Total process wastewater generated daily:	124,140	gallons/day
Total process wastewater generated per period:	14,896,856	gallons/storage period
Total process wastewater removed due to evaporation:	1,269,324	gallons/storage period
Total storage capacity required:	13,627,532	gallons
	1,821,736	cu. ft.
Existing storage capacity (adjusted for dead storage loss):	17,105,472	gallons
	2,286,669	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:	799,200	gallons/storage period
Manure and bedding sent to pond:	2,711,637	gallons/storage period
Precipitation onto pond:	1,857,227	gallons/storage period
Precipitation runoff:	7,538,987	gallons/storage period
25 year/24 hour storm onto pond:	391,325	gallons/storage period
25 year/24 hour storm runoff:	1,598,480	gallons/storage period
Residual solids after liquids have been removed (liquid equivalent):	143,737	gallons/storage period
Total process wastewater removed due to evaporation:	1,269,324	gallons/storage period
Total required capacity:	13,627,532	gallons/storage period
Total existing capacity:	17,105,472	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: Storage Pond

Dry season freeboard monitoring will occur on the 1st 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 1 feet above the pond invert beginning in October of each year.

Sludge accumulation will be measured annually.

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

Thickness will be measured using a yard stick once liquids have been removed for the pond.

When solids/sludge accumulate to a thickness of 1.0 feet, the following method will be used to maintain adequate storage capacity while protecting any pond liner:

Solids/sludge will be removed using trackhoes, agitators, and pumps

OPERATIONS AND MAINTENANCE PLAN FOR POND: Settling Basin

Dry season freeboard monitoring will occur on the 1st 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 1 feet above the pond invert beginning in October of each year.

Sludge accumulation will be measured annually.

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

Thickness will be measured using a yard stick once liquids have been removed.

When solids/sludge accumulate to a thickness of 1.0 feet, the following method will be used to maintain adequate storage capacity while protecting any pond liner:

Solids/sludge will be removed using trackhoes, agitators, and pumps

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.)
Roofs	1	837,396

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 October

Description of how rainfall collection systems will be assessed:

A visual assessment for leaks, cracks, damaged, and plugged collection systems will be conducted annually.

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:

Solids are to be removed once manure depth has reached a maximum of 12". Grading is to occur when low areas and potholes exist that prevent free drainage of runoff.

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 October

Animal housing area drainage system assessment and maintenance methods:

A professional sewer cleaning service will be used to clean the drainage systems as required. Repairs will be made by a licensed Plumber or General Contractor.

G. MORTALITY MANAGEMENT

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

Rendering company or landfill name: Baker Commodities

Rendering company or landfill telephone number: (559) 846-9363

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: Annually

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.

No chemicals entered.

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: S

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: A

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: S

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: A

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: A

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: S

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: A

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: S

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: 06099C0300E

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 Report

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: Martins Dairy

Physical address of dairy:

3319 Gates RD	Modesto	Stanislaus	95358
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 DATE

Michael C Mitchell
PRINT OR TYPE NAME

18836 E 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.

SIGNATURE OF OWNER	SIGNATURE OF OPERATOR
Val Martins	Danny Martins
PRINT OR TYPE NAME	PRINT OR TYPE NAME
DATE	DATE

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

DAIRY FACILITY INFORMATION

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

Physical address of dairy:

3319 Gates RD	Modesto	Stanislaus	95358
Number and Street	City	County	Zip Code

Street and nearest cross street (if no address):

Date facility was originally placed in operation: 08/01/1991

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

County Assessor Parcel Number(s) for dairy facility:

0012-0019-0001-0000	0012-0021-0005-0000	0012-0021-0007-0000	0012-0021-0008-0000	0012-0021-0009-0000
0012-0021-0012-0000	0012-0021-0013-0000	0012-0021-0014-0000	0012-0021-0015-0000	

B. OPERATOR NAME: Martins, Danny Telephone no.: (209) 604-2308
Landline Cellular

10101 Beckwith RD	Modesto	CA	95358
Mailing Address Number and Street	City	State	Zip Code

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

C. LEGAL OWNER NAME: Martins, Val Telephone no.: (209) 545-3419
Landline Cellular

3655 Gates RD	Modesto	CA	95358
Mailing Address Number and Street	City	State	Zip Code

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

D. CONTACT NAME: Mitchell, Michael C Telephone no.: (209) 664-1067 (559) 381-0607
Landline Cellular

Title: Professional Engineer

18836 E Clausen RD	Turlock	CA	95380
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:

4,780 *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	4,160	620	1,500	1,200	500	0
Maximum count	4,175	625	1,520	1,220	500	0
Avg live weight (lbs)	1,400	1,400	900	750		
Daily hours on flush	8	8	4	4	4	0

Predominant milk cow breed: Holstein

Average milk production: 60 *pounds per cow per day*

B. IRRIGATION SOURCES

Irrigation Source Name	Type	Nitrogen (mg/L)	Phosphorus (mg/L)	Potassium (mg/L)	Discharge Rate
Canal Water	Surface water (canal, river)	0.10			3,000 *gpm*

C. NUTRIENT IMPORTS

No nutrient imports entered.

D. NUTRIENT EXPORTS

Nutrient Type/Name	Quantity	Moisture	Nitrogen	Phosphorus (as P2O5)	Potassium (as K2O)
Solid manure	9,999.00 *ton*	63.3%	1.490%	2.930%	1.570%
Solid manure	9,999.00 *ton*	63.3%	1.490%	2.930%	1.570%
Solid manure	9,999.00 *ton*	63.3%	1.490%	2.930%	1.570%
Solid manure	9,999.00 *ton*	63.3%	1.490%	2.930%	1.570%
Solid manure	9,999.00 *ton*	63.3%	1.490%	2.930%	1.570%
Solid manure	9,999.00 *ton*	63.3%	1.490%	2.930%	1.570%
Solid manure	9,999.00 *ton*	63.3%	1.490%	2.930%	1.570%

Total nitrogen exported: 765,485.44 *lbs*

Total phosphorus exported: 657,808.87 *lbs*

Total potassium exported: 669,465.83 *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: 0012-0019-0001-0000
Legal owner of parcel: Owned by Dairy

ASSESSOR PARCEL NUMBER: 0012-0021-0005-0000
Legal owner of parcel: Owned by Dairy

ASSESSOR PARCEL NUMBER: 0012-0021-0007-0000
Legal owner of parcel: Owned by Dairy

ASSESSOR PARCEL NUMBER: 0012-0021-0008-0000
Legal owner of parcel: Owned by Dairy

ASSESSOR PARCEL NUMBER: 0012-0021-0012-0000
Legal owner of parcel: Owned by Dairy

ASSESSOR PARCEL NUMBER: 0012-0021-0013-0000
Legal owner of parcel: Owned by Dairy

ASSESSOR PARCEL NUMBER: 0012-0021-0014-0000
Legal owner of parcel: Owned by Dairy

ASSESSOR PARCEL NUMBER: 0012-0021-0015-0000
Legal owner of parcel: Owned by Dairy

B. FIELD NAME: Field 1

Cropable acres: 116

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? [X] Yes [ ] No

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

Tailwater management method: Returned to top of field

Crops grown and rotation:

Crop Type	Plant Date	Harvest Date	Acres Planted
Alfalfa, hay	Middle February	Early December	116

FIELD NAME: Field 2

Cropable acres: 102

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? [X] Yes [ ] No

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

Tailwater management method: Returned to top of field

Crops grown and rotation:

Crop Type	Plant Date	Harvest Date	Acres Planted
Alfalfa, hay	Middle February	Early December	102

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? [X] Yes [ ] No

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

Tailwater management method: Returned to top of field

Crops grown and rotation:

Crop Type	Plant Date	Harvest Date	Acres Planted
Wheat, silage, boot stage	Early September	Early February	38
Corn, silage	Early March	Middle August	38

FIELD NAME: Field 4

Cropable acres: 98

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? [X] Yes [ ] No

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

Tailwater management method: Returned to top of field

Crops grown and rotation:

Crop Type	Plant Date	Harvest Date	Acres Planted
Wheat, silage, boot stage	Early September	Early February	98
Corn, silage	Early March	Middle August	98

FIELD NAME: Field 5

Cropable acres: 166

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? [X] Yes [ ] No

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

Tailwater management method: Returned to top of field

Crops grown and rotation:

Crop Type	Plant Date	Harvest Date	Acres Planted
Wheat, silage, soft dough	Early September	Early February	166
Corn, silage	Early March	Middle August	166

FIELD NAME: Field 6

Cropable acres: 208

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? [X] Yes [ ] No

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

Tailwater management method: Returned to top of field

Crops grown and rotation:

Crop Type	Plant Date	Harvest Date	Acres Planted
Sudangrass, hay	Early September	Early February	208
Corn, silage	Early March	Middle August	208

FIELD NAME: Field 7

Cropable acres: 22

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? [X] Yes [ ] No

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

Tailwater management method: Returned to top of field

Crops grown and rotation:

Crop Type	Plant Date	Harvest Date	Acres Planted
Wheat, silage, boot stage	Early September	Early February	22
Corn, silage	Early March	Middle August	22

FIELD NAME: Field 8

Cropable acres: 49

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? [X] Yes [ ] No

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

Tailwater management method: Returned to top of field

Crops grown and rotation:

Crop Type	Plant Date	Harvest Date	Acres Planted
Wheat, silage, boot stage	Early September	Early February	49
Corn, silage	Early March	Middle August	49

C. LAND APPLICATION AREA FIELDS AND PARCELS

Field name	Cropable acres	Total harvests	Parcel number
Field 1	116	1	0012-0019-00010000
Field 2	102	1	0012-0021-00070000
Field 3	38	2	0012-0021-00080000
Field 4	98	2	0012-0021-00120000
Field 5	166	2	0012-0021-00130000
Field 6	208	2	0012-0021-00150000
Field 7	22	2	0012-0021-00050000
Field 8	49	2	0012-0021-00140000
Land application area totals	799	14	

NUTRIENT BUDGET

A. NUTRIENT BUDGET FOR CROP: Field 1 / Alfalfa, hay

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
Dry manure	1	250.0	42.0	300.0	250.0
Nutrient source: From dairy		50%	50%	50%	
Application method: Broadcast/incorporate					
In season irrigation (no fertilizer)	10	0.0	0.0	0.0	1.4
Nutrient source: Water only		0%	0%	0%	
Application method: Surface					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Canal Water	0.1	0.0	0.0	105.0
	0.1	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	1.4	0.0	0.0
Existing soil nutrient content	0.0	0.0	0.0
Plowdown credit	0.0	0.0	0.0
Commercial fertilizer	0.0	0.0	0.0
Dry manure	250.0	42.0	300.0
Liquid manure	0.0	0.0	0.0
Other	0.0	0.0	0.0
Atmospheric deposition	14.0		
Nutrients applied	265.4	42.0	300.0
Potential crop nutrient removal	600.0	54.0	420.0
Nutrient balance	-334.6	-12.0	-120.0
Applied to removal ratio	0.44	0.78	0.71

Fresh water applied: 5.00 *feet* Total harvests: 1

NUTRIENT BUDGET FOR CROP: Field 2 / Alfalfa, hay

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
Dry manure	1	250.0	42.0	300.0	250.0
Nutrient source: From dairy		50%	50%	50%	
Application method: Broadcast/incorporate					
In season irrigation (no fertilizer)	10	0.0	0.0	0.0	1.4
Nutrient source: Water only		0%	0%	0%	
Application method: Surface					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Canal Water	0.1	0.0	0.0	92.0
	0.1	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	1.4	0.0	0.0
Existing soil nutrient content	0.0	0.0	0.0
Plowdown credit	0.0	0.0	0.0
Commercial fertilizer	0.0	0.0	0.0
Dry manure	250.0	42.0	300.0
Liquid manure	0.0	0.0	0.0
Other	0.0	0.0	0.0
Atmospheric deposition	14.0		
Nutrients applied	265.4	42.0	300.0
Potential crop nutrient removal	600.0	54.0	420.0
Nutrient balance	-334.6	-12.0	-120.0
Applied to removal ratio	0.44	0.78	0.71

Fresh water applied: 4.98 *feet* Total harvests: 1

NUTRIENT BUDGET FOR CROP: Field 3 / Wheat, silage, boot stage

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
Pre-irrigation prior to planting (with fertilizer) *Nutrient source:* Retention pond (lagoon) *Application method:* Pipeline	1	164.0 100%	27.0 50%	197.0 50%	164.1

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Canal Water	0.1	0.0	0.0	34.0
	0.1	0.0	0.0	

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) *Nutrient source:* Water only *Application method:* Surface	1	0.0 0%	0.0 0%	0.0 0%	0.1

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Canal Water	0.1	0.0	0.0	34.0
	0.1	0.0	0.0	

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) *Nutrient source:* Retention pond (lagoon) *Application method:* Pipeline	1	164.0 100%	27.0 50%	197.0 50%	164.1

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Canal Water	0.1	0.0	0.0	34.0
	0.1	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	0.4	0.0	0.0

Existing soil nutrient content	0.0	0.0	0.0
Plowdown credit	0.0	0.0	0.0
Commercial fertilizer	0.0	0.0	0.0
Dry manure	0.0	0.0	0.0
Liquid manure	328.0	54.0	394.0
Other	0.0	0.0	0.0
Atmospheric deposition	7.0		
Nutrients applied	335.4	54.0	394.0
Potential crop nutrient removal	240.0	42.0	180.0
Nutrient balance	95.4	12.0	214.0
Applied to removal ratio	1.40	1.29	2.19

Fresh water applied: 1.48 *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)
In season irrigation (no fertilizer) *Nutrient source:* Water only *Application method:* Surface	4	0.0 0%	0.0 0%	0.0 0%	0.5

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Canal Water	0.1	0.0	0.0	34.0
	0.1	0.0	0.0	

In season irrigation (with fertilizer) *Nutrient source:* Retention pond (lagoon) *Application method:* Pipeline	3	117.0 100%	20.0 50%	140.0 50%	351.4

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Canal Water	0.1	0.0	0.0	34.0
	0.1	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	0.9	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	351.0	60.0	420.0
Other	0.0	0.0	0.0
Atmospheric deposition	7.0		
Nutrients applied	358.9	60.0	420.0
Potential crop nutrient removal	256.0	48.0	211.2

Nutrient balance	102.9	12.0	208.8
Applied to removal ratio	1.40	1.25	1.99

Fresh water applied: 3.46 *feet* Total harvests: 1

NUTRIENT BUDGET FOR CROP: Field 4 / Wheat, silage, boot stage

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
Pre-irrigation prior to planting (with fertilizer) *Nutrient source:* Retention pond (lagoon) *Application method:* Pipeline	1	164.0 100%	27.0 50%	197.0 50%	164.1

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Canal Water	0.1	0.0	0.0	88.0
	0.1	0.0	0.0	

In season irrigation (no fertilizer) *Nutrient source:* Water only *Application method:* Surface	1	0.0 0%	0.0 0%	0.0 0%	0.1

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Canal Water	0.1	0.0	0.0	88.0
	0.1	0.0	0.0	

In season irrigation (with fertilizer) *Nutrient source:* Retention pond (lagoon) *Application method:* Pipeline	1	164.0 100%	27.0 50%	197.0 50%	164.1

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Canal Water	0.1	0.0	0.0	88.0
	0.1	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	0.4	0.0	0.0
Existing soil nutrient content	0.0	0.0	0.0
Plowdown credit	0.0	0.0	0.0
Commercial fertilizer	0.0	0.0	0.0
Dry manure	0.0	0.0	0.0
Liquid manure	328.0	54.0	394.0
Other	0.0	0.0	0.0
Atmospheric deposition	7.0		
Nutrients applied	335.4	54.0	394.0
Potential crop nutrient removal	240.0	42.0	180.0
Nutrient balance	95.4	12.0	214.0
Applied to removal ratio	1.40	1.29	2.19

Fresh water applied: 1.49 *feet* Total harvests: 1

NUTRIENT BUDGET FOR CROP: Field 4 / 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) *Nutrient source:* Water only *Application method:* Surface	4	0.0 0%	0.0 0%	0.0 0%	0.5

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Canal Water	0.1	0.0	0.0	88.0
	0.1	0.0	0.0	

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) *Nutrient source:* Retention pond (lagoon) *Application method:* Pipeline	3	117.0 100%	20.0 50%	140.0 50%	351.4

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Canal Water	0.1	0.0	0.0	88.0
	0.1	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	0.9	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	351.0	60.0	420.0
Other	0.0	0.0	0.0
Atmospheric deposition	7.0		
Nutrients applied	358.9	60.0	420.0
Potential crop nutrient removal	256.0	48.0	211.2
Nutrient balance	102.9	12.0	208.8
Applied to removal ratio	1.40	1.25	1.99

Fresh water applied: 3.47 *feet* Total harvests: 1

NUTRIENT BUDGET FOR CROP: Field 5 / Wheat, silage, soft dough

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
Pre-irrigation prior to planting (with fertilizer) *Nutrient source:* Retention pond (lagoon) *Application method:* Pipeline	1	164.0 100%	27.0 50%	197.0 50%	164.1

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Canal Water	0.1	0.0	0.0	150.0
	0.1	0.0	0.0	

NUTRIENT BUDGET FOR CROP (CONTINUED): Field 5 / Wheat, 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 (no fertilizer) *Nutrient source:* Water only *Application method:* Surface	1	0.0 0%	0.0 0%	0.0 0%	0.1

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Canal Water	0.1	0.0	0.0	150.0
	0.1	0.0	0.0	

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) *Nutrient source:* Retention pond (lagoon) *Application method:* Pipeline	1	164.0 100%	27.0 50%	197.0 50%	164.1

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Canal Water	0.1	0.0	0.0	150.0
	0.1	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	0.4	0.0	0.0
Existing soil nutrient content	0.0	0.0	0.0
Plowdown credit	0.0	0.0	0.0
Commercial fertilizer	0.0	0.0	0.0
Dry manure	0.0	0.0	0.0
Liquid manure	328.0	54.0	394.0
Other	0.0	0.0	0.0
Atmospheric deposition	7.0		
Nutrients applied	335.4	54.0	394.0
Potential crop nutrient removal	240.0	42.0	180.0
Nutrient balance	95.4	12.0	214.0
Applied to removal ratio	1.40	1.29	2.19

Fresh water applied: 1.50 *feet* Total harvests: 1

NUTRIENT BUDGET FOR CROP: Field 5 / 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) *Nutrient source:* Water only *Application method:* Surface	4	0.0 0%	0.0 0%	0.0 0%	0.5

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Canal Water	0.1	0.0	0.0	150.0
	0.1	0.0	0.0	

NUTRIENT BUDGET FOR CROP (CONTINUED): Field 5 / 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)	3	117.0	20.0	140.0	351.4
Nutrient source: Retention pond (lagoon)		100%	50%	50%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Canal Water	0.1	0.0	0.0	150.0
	0.1	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	1.0	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	351.0	60.0	420.0
Other	0.0	0.0	0.0
Atmospheric deposition	7.0		
Nutrients applied	359.0	60.0	420.0
Potential crop nutrient removal	256.0	48.0	211.2
Nutrient balance	103.0	12.0	208.8
Applied to removal ratio	1.40	1.25	1.99

Fresh water applied: 3.49 *feet* Total harvests: 1

NUTRIENT BUDGET FOR CROP: Field 6 / Sudangrass, hay

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	86.0	14.0	103.0	86.1
Nutrient source: Retention pond (lagoon)		100%	50%	50%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Canal Water	0.1	0.0	0.0	188.0
	0.1	0.0	0.0	

In season irrigation (no fertilizer)	1	0.0	0.0	0.0	0.1
Nutrient source: Water only		0%	0%	0%	
Application method: Surface					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Canal Water	0.1	0.0	0.0	188.0
	0.1	0.0	0.0	

NUTRIENT BUDGET FOR CROP (CONTINUED): Field 6 / Sudangrass, hay

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) *Nutrient source:* Retention pond (lagoon) *Application method:* Pipeline	1	86.0 100%	14.0 50%	103.0 50%	86.1

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Canal Water	0.1	0.0	0.0	188.0
	0.1	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	0.4	0.0	0.0
Existing soil nutrient content	0.0	0.0	0.0
Plowdown credit	0.0	0.0	0.0
Commercial fertilizer	0.0	0.0	0.0
Dry manure	0.0	0.0	0.0
Liquid manure	172.0	28.0	206.0
Other	0.0	0.0	0.0
Atmospheric deposition	7.0		
Nutrients applied	179.4	28.0	206.0
Potential crop nutrient removal	128.0	17.6	132.0
Nutrient balance	51.4	10.4	74.0
Applied to removal ratio	1.40	1.59	1.56

Fresh water applied: 1.50 *feet* Total harvests: 1

NUTRIENT BUDGET FOR CROP: Field 6 / 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) *Nutrient source:* Water only *Application method:* Surface	4	0.0 0%	0.0 0%	0.0 0%	0.5

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Canal Water	0.1	0.0	0.0	188.0
	0.1	0.0	0.0	

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) *Nutrient source:* Retention pond (lagoon) *Application method:* Pipeline	3	117.0 100%	20.0 50%	140.0 50%	351.4

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Canal Water	0.1	0.0	0.0	188.0
	0.1	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	1.0	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	351.0	60.0	420.0
Other	0.0	0.0	0.0
Atmospheric deposition	7.0		
Nutrients applied	359.0	60.0	420.0
Potential crop nutrient removal	256.0	48.0	211.2
Nutrient balance	103.0	12.0	208.8
Applied to removal ratio	1.40	1.25	1.99

Fresh water applied: 3.49 *feet* Total harvests: 1

NUTRIENT BUDGET FOR CROP: Field 7 / Wheat, silage, boot stage

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
Pre-irrigation prior to planting (with fertilizer) *Nutrient source:* Retention pond (lagoon) *Application method:* Pipeline	1	164.0 100%	27.0 50%	197.0 50%	164.1

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Canal Water	0.1	0.0	0.0	20.0
	0.1	0.0	0.0	

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) *Nutrient source:* Water only *Application method:* Surface	1	0.0 0%	0.0 0%	0.0 0%	0.1

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Canal Water	0.1	0.0	0.0	20.0
	0.1	0.0	0.0	

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) *Nutrient source:* Retention pond (lagoon) *Application method:* Pipeline	1	164.0 100%	27.0 50%	197.0 50%	164.1

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Canal Water	0.1	0.0	0.0	20.0
	0.1	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	0.4	0.0	0.0

Existing soil nutrient content	0.0	0.0	0.0
Plowdown credit	0.0	0.0	0.0
Commercial fertilizer	0.0	0.0	0.0
Dry manure	0.0	0.0	0.0
Liquid manure	328.0	54.0	394.0
Other	0.0	0.0	0.0
Atmospheric deposition	7.0		
Nutrients applied	335.4	54.0	394.0
Potential crop nutrient removal	240.0	42.0	180.0
Nutrient balance	95.4	12.0	214.0
Applied to removal ratio	1.40	1.29	2.19

Fresh water applied: 1.51 *feet* Total harvests: 1

NUTRIENT BUDGET FOR CROP: Field 7 / 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) *Nutrient source:* Water only *Application method:* Surface	4	0.0 0%	0.0 0%	0.0 0%	0.5

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Canal Water	0.1	0.0	0.0	20.0
	0.1	0.0	0.0	

In season irrigation (with fertilizer) *Nutrient source:* Retention pond (lagoon) *Application method:* Pipeline	3	117.0 100%	20.0 50%	140.0 50%	351.4

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Canal Water	0.1	0.0	0.0	20.0
	0.1	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	1.0	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	351.0	60.0	420.0
Other	0.0	0.0	0.0
Atmospheric deposition	7.0		
Nutrients applied	359.0	60.0	420.0
Potential crop nutrient removal	256.0	48.0	211.2

Nutrient balance	103.0	12.0	208.8
Applied to removal ratio	1.40	1.25	1.99

Fresh water applied: 3.52 *feet* Total harvests: 1

NUTRIENT BUDGET FOR CROP: Field 8 / Wheat, silage, boot stage

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
Pre-irrigation prior to planting (with fertilizer) *Nutrient source:* Retention pond (lagoon) *Application method:* Pipeline	1	164.0 100%	27.0 50%	197.0 50%	164.1

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Canal Water	0.1	0.0	0.0	44.0
	0.1	0.0	0.0	

In season irrigation (no fertilizer) *Nutrient source:* Water only *Application method:* Surface	1	0.0 0%	0.0 0%	0.0 0%	0.1

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Canal Water	0.1	0.0	0.0	44.0
	0.1	0.0	0.0	

In season irrigation (with fertilizer) *Nutrient source:* Retention pond (lagoon) *Application method:* Pipeline	1	164.0 100%	27.0 50%	197.0 50%	164.1

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Canal Water	0.1	0.0	0.0	44.0
	0.1	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	0.4	0.0	0.0
Existing soil nutrient content	0.0	0.0	0.0
Plowdown credit	0.0	0.0	0.0
Commercial fertilizer	0.0	0.0	0.0
Dry manure	0.0	0.0	0.0
Liquid manure	328.0	54.0	394.0
Other	0.0	0.0	0.0
Atmospheric deposition	7.0		
Nutrients applied	335.4	54.0	394.0
Potential crop nutrient removal	240.0	42.0	180.0
Nutrient balance	95.4	12.0	214.0
Applied to removal ratio	1.40	1.29	2.19

Fresh water applied: 1.49 *feet* Total harvests: 1

NUTRIENT BUDGET FOR CROP: Field 8 / 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) *Nutrient source:* Water only *Application method:* Surface	4	0.0 0%	0.0 0%	0.0 0%	0.5

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Canal Water	0.1	0.0	0.0	44.0
	0.1	0.0	0.0	

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) *Nutrient source:* Retention pond (lagoon) *Application method:* Pipeline	3	117.0 100%	20.0 50%	140.0 50%	351.4

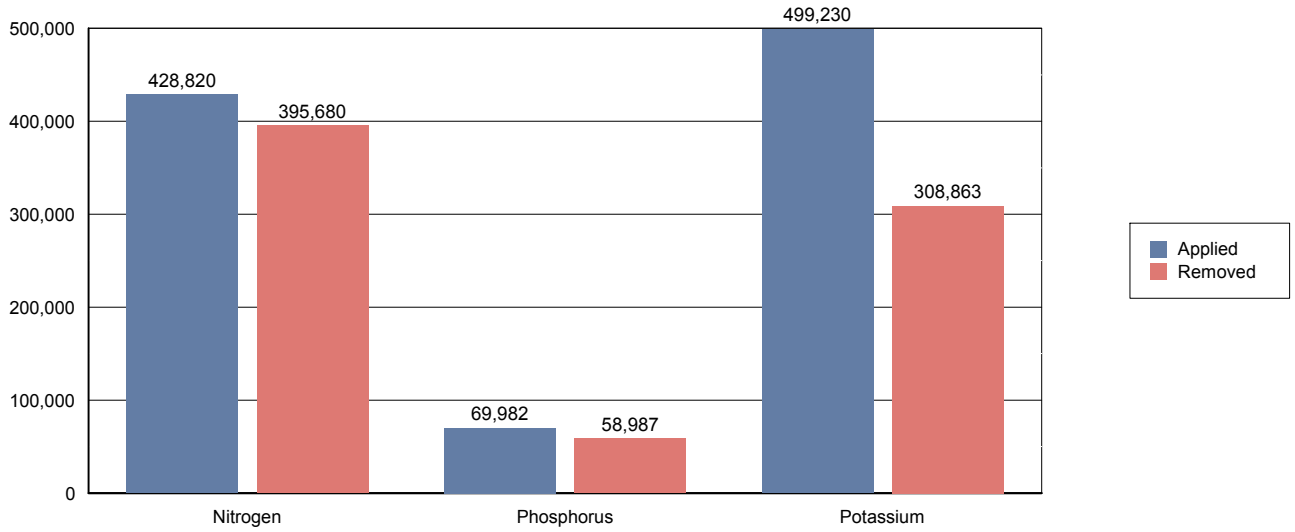
Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Canal Water	0.1	0.0	0.0	44.0
	0.1	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	0.9	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	351.0	60.0	420.0
Other	0.0	0.0	0.0
Atmospheric deposition	7.0		
Nutrients applied	358.9	60.0	420.0
Potential crop nutrient removal	256.0	48.0	211.2
Nutrient balance	102.9	12.0	208.8
Applied to removal ratio	1.40	1.25	1.99

Fresh water applied: 3.47 *feet* Total harvests: 1

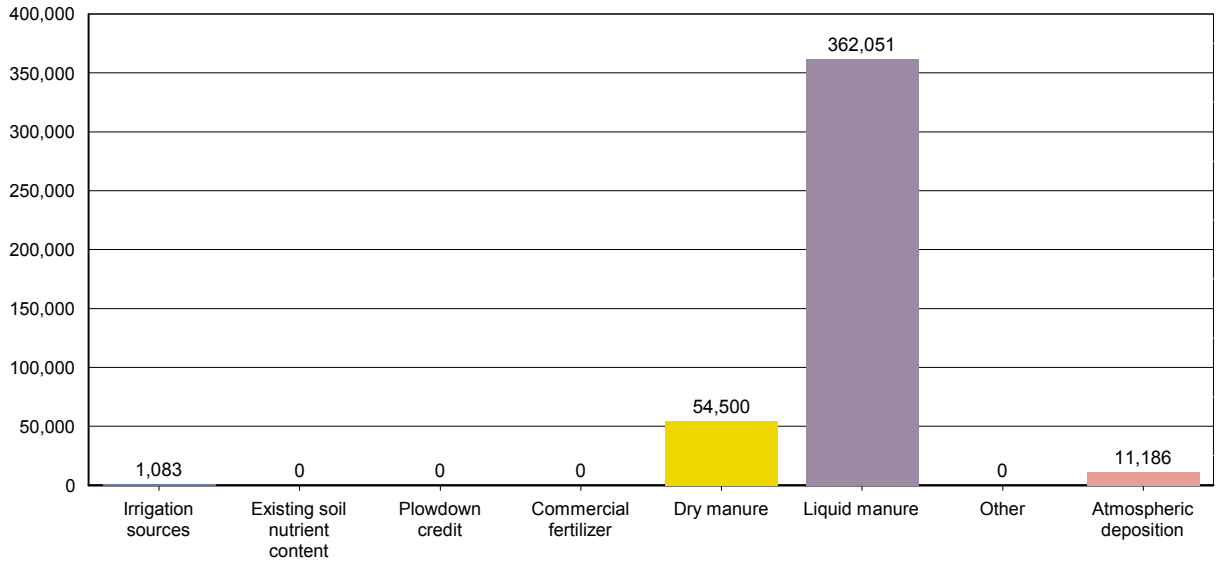
NUTRIENT APPLICATIONS, POTENTIAL REMOVAL, AND BALANCE

A. POUNDS OF NUTRIENT APPLIED VS. CROP REMOVAL POTENTIAL



	Total N (lbs)	Total P (lbs)	Total K (lbs)
Irrigation sources	1,083.0	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	54,500.0	9,156.0	65,400.0
Liquid manure	362,051.0	60,826.0	433,830.0
Other	0.0	0.0	0.0
Atmospheric deposition	11,186.0		
Nutrients applied to all crops	428,820.0	69,982.0	499,230.0
Potential crop nutrient removal	395,680.0	58,986.8	308,863.2
Nutrient balance	33,140.0	10,995.2	190,366.8
Applied to removal ratio	1.08	1.19	1.62

B. POUNDS OF NITROGEN APPLIED BY NUTRIENT SOURCE



	Total N (lbs)	Total P (lbs)	Total K (lbs)
Irrigation sources	1,083.0	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	54,500.0	9,156.0	65,400.0
Liquid manure	362,051.0	60,826.0	433,830.0
Other	0.0	0.0	0.0
Atmospheric deposition	11,186.0		
Nutrients applied to all crops	428,820.0	69,982.0	499,230.0
Potential crop nutrient removal	395,680.0	58,986.8	308,863.2
Nutrient balance	33,140.0	10,995.2	190,366.8
Applied to removal ratio	1.08	1.19	1.62

NUTRIENT BALANCE

A. WHOLE FARM BALANCE

	Total N (lbs)	Total P (lbs)	Total K (lbs)
Nutrients in storage from herd*			
Daily gross	4,755.6	783.9	2,115.4
Annual gross	1,735,786.7	286,135.3	772,121.3
Net to pond storage after ammonia losses (30% loss applied)	371,699.7	87,743.2	257,373.8
Net to drylot storage after ammonia losses (30% loss applied)	843,351.0	198,392.1	514,747.5
Net in storage (30% loss applied)	1,215,050.7	286,135.3	772,121.3
Irrigation sources	1,083.0	0.0	0.0
Atmospheric deposition	11,186.0		
Imports	0.0	0.0	0.0
Exports	765,485.4	657,808.9	669,465.8
Potential crop nutrient removal	395,680.0	58,986.8	308,863.2
Nutrient balance	66,154.3	-430,660.4	-206,207.8
Nutrient balance ratio	1.17	-6.30	0.33

* 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
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.	List individual manure sources, e.g.: Corral solids Settling basin solids Freestall scrapings	Date applied and total weight (tons) applied	Percent moisture
Once within 12 months	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.	List individual manure sources, e.g.: Corral solids Settling basin solids Freestall scrapings	None required	General minerals, including: calcium, magnesium, sodium, bicarbonate, carbonate, sulfate, and chloride
Each offsite export of manure	For each manure source exported, a composite sample “Approved Sampling Procedures for Nutrient and Groundwater Monitoring at Existing Milk Cow Dairies” will be collected. For each manure source exported, a scaled weight by truckload will be recorded.	List individual manure sources, e.g.: Corral solids Settling basin solids Freestall scrapings	Date exported and total weight (tons) exported	Percent moisture

A. MANURE SAMPLING AND ANALYSIS PLAN (CONTINUED)

			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	List individual manure sources, e.g.: Corral solids Settling basin solids Freestall scrapings	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.	List individual manure sources, e.g.: Corral solids Settling basin solids Freestall scrapings	None required	Total nitrogen, total phosphorus, potassium, and percent moisture

B. PROCESS WASTEWATER SAMPLING AND ANALYSIS PLAN

			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.	List individuall ponds, e.g.: Pond 1 Treatment Lagoon 2	Date applied and volume (gallons or acre-inches) applied	None required

B. PROCESS WASTEWATER SAMPLING AND ANALYSIS PLAN (CONTINUED)

			Minimum data collection requirements	
Frequency	Sampling Methods	Source	Field Analytes	Lab Analytes
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.	List individual ponds, e.g.: Pond 1 Treatment Lagoon 2	Date applied and electrical conductivity	Nitrate-nitrogen (only when pond is aerated), ammonium-nitrogen, total Kjeldahl nitrogen, total phosphorus, and potassium
Once within 12 months and annually for two years after groundwater monitoring wells are required	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.	List individual ponds, e.g.: Pond 1 Treatment Lagoon 2	None required	General minerals, including: calcium, magnesium, sodium, bicarbonate, carbonate, sulfate, and chloride

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 in summer of 2008 and then once every five years for each land application area	For each field, a composite sample per the “Approved Sampling Procedures for Nutrient and Groundwater Monitoring at Existing Milk Cow Dairies” will be collected.	List individual fields and field size, e.g.: Field 1 - 200 acres Field 2 - 200 acres Field 3 - 200 acres Field 4 - 200 acres Field 5 - 200 acres	None required	0 to 1 foot: Total 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.	List individual fields and field size, e.g.: Field 1 - 200 acres Field 2 - 200 acres Field 3 - 200 acres Field 4 - 200 acres Field 5 - 200 acres	None required	0 to 1 foot: Nitrate-nitrogen and organic matter 1 to 2 foot: Nitrate-nitrogen
Fall 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.	List individual fields and field size, e.g.: Field 1 - 200 acres Field 2 - 200 acres Field 3 - 200 acres Field 4 - 200 acres Field 5 - 200 acres	None required	0 to 1 foot: Electrical conductivity, nitrate-nitrogen, soluble phosphorus, potassium, organic matter 1 to 2: Nitrate-nitrogen 2 to 3 foot: Nitrate-nitrogen

D. PLANT TISSUE SAMPLING AND ANALYSIS PLAN

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

D. PLANT TISSUE SAMPLING AND ANALYSIS PLAN (CONTINUED)

			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.	List individual fields and crop rotation, e.g.: Field 1 - corn/oat silage Field 2 - corn/oat silage Field 3 - alfalfa Field 4 - alfalfa Field 5 - alfalfa	Date harvested and total weight (tons) of harvested material removed from each land application area	Percent wet weight of harvested plant removed Total nitrogen, phosphorus, and potassium, expressed on a dry weight basis
Mid-season, as necessary to assess need for additional nitrogen during the growing season (only required if Discharger wants to add fertilizer in excess of 1.4 times the nitrogen expected to be removed by the harvested portion of the crop)	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.	List individual fields and crop rotation, e.g.: Field 1 - corn/oat silage Field 2 - corn/oat silage Field 3 - alfalfa Field 4 - alfalfa Field 5 - alfalfa	None required	Total nitrogen, expressed on a dry weight basis

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	List individual irrigation sources and the flow rate measurement method, e.g.: Irrigation Well 1 - inline flow meter Irrigation Well 2 - flow rate multiplied by runtime Canal 1 - flow rate multiplied by runtime	List individual irrigation sources, e.g.: Well 1 Canal 1 East River	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. [OR] Groundwater monitoring data will be used to satisfy monitoring requirements for all irrigation well water. Irrigation district data will be used to satisfy monitoring requirements for all canal/surface water.	List individual irrigation sources, e.g.: Well 1 Canal 1 East River	None required	Electrical conductivity and nitrate-nitrogen Data collected to satisfy the groundwater monitoring requirements will satisfy this requirement for irrigation wells

NUTRIENT MANAGEMENT PLAN REVIEW

A. NUTRIENT MANAGEMENT PLAN REVIEW

Person who created the NMP: Mitchell, Michael C *See above for contact information.*
Date the NMP was drafted: 02/08/2012
Person who approved the final NMP: Mitchell, Michael C *See above for contact information.*
Date of NMP implementation: 02/08/2012

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: A

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: S

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: A

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: Martins Dairy

Physical address of dairy:

3319 Gates RD	Modesto	Stanislaus	95358
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.

Professional Engineer
TITLE/QUALIFICATIONS OF CERTIFIED NUTRIENT MANAGEMENT SPECIALIST

SIGNATURE OF TRAINED PROFESSIONAL DATE

Michael C Mitchell
PRINT OR TYPE NAME

18836 E 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.

SIGNATURE OF OWNER OF FACILITY	SIGNATURE OF OPERATOR OF FACILITY
Val Martins	Danny Martins
PRINT OR TYPE NAME	PRINT OR TYPE NAME
DATE	DATE

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

NUTRIENT BUDGET CERTIFICATION

A. DAIRY FACILITY INFORMATION

Name of dairy or business operating the dairy: Martins Dairy

Physical address of dairy:

3319 Gates RD	Modesto	Stanislaus	95358
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.

Professional Engineer
TITLE/QUALIFICATIONS OF CERTIFIED NUTRIENT MANAGEMENT SPECIALIST

SIGNATURE OF TRAINED PROFESSIONAL DATE

Michael C Mitchell
PRINT OR TYPE NAME

18836 E 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.

SIGNATURE OF OWNER OF FACILITY	SIGNATURE OF OPERATOR OF FACILITY
Val Martins	Danny Martins
PRINT OR TYPE NAME	PRINT OR TYPE NAME
DATE	DATE

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

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: Martins Dairy

3319 Gates RD	Modesto	Stanislaus	95358
Number and Street	City	County	Zip Code

Street and nearest cross street (if no address):

Operator name: Martins, Danny Telephone no.: (209) 604-2308

Landline Cellular

10101 Beckwith RD	Modesto	CA	95358
Mailing Address Number and Street	City	State	Zip Code

Legal owner name: Martins, Val Telephone no.: (209) 545-3419

Landline Cellular

3655 Gates RD	Modesto	CA	95358
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.

SIGNATURE OF OWNER OF FACILITY	SIGNATURE OF OPERATOR OF FACILITY
Val Martins	Danny Martins
PRINT OR TYPE NAME	PRINT OR TYPE NAME
DATE	DATE